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Case Study

A Nonprofit Networked Platform for Global Health

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AN INSIDE LOOK AT ONE ORGANIZATION

A Nonprofit Networked Platform for Global Health

Project ECHO developed a revolutionary model for helping doctors and clinicians in New Mexico to treat hepatitis C. It spread around the world to address numerous chronic diseases. With the COVID-19 pandemic, it found its moment.

BY TAMARA KAY & JASON SPICER

When the novel coronavirus struck in January 2020, health-care organizations and governments around the world found themselves under siege. Many large, complex, well-funded operations, both private and public, struggled to shift their operations to meet the challenge of the disease. The World Health Organization (WHO), the US federal government, and New York's Mount Sinai Queens and Elmhurst Hospitals were notable examples of institutions unable to respond quickly and at scale to the raging pandemic. Furthermore, COVID-19 also threw global inequalities of race, gender, class, and caste into stark relief, revealing how these vectors condition access to essential health care in a time of crisis.

By contrast, the global operations of Project ECHO (Extension for Community Healthcare Outcomes), an unconventionally structured global health and community services initiative founded in 2003 in New Mexico, rapidly pivoted in the wake of COVID-19 to address the challenge, operating at scale to reach some of the world's most vulnerable populations. Its efforts saved countless lives in the process and received praise in the *New York Times*, the TED Talks blog, and other news outlets around the world. By mid-2020, it was a finalist for the MacArthur Foundation 100&Change competition, which grants $100 million toward "a single proposal that promises real and measurable progress in solving a critical problem of our time."

Project ECHO's success presents a compelling puzzle: How did a funding-constrained nonprofit from New Mexico without a clear central organizational hierarchy manage to shift operations so nimbly at scale to address COVID-19 medical education, training, and social

Sanjeev Arora, MD (second from left) and his team at the ECHO Institute participate in a teleECHO clinic about hepatitis C.

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service delivery—particularly in such a heavily regulated industry that also requires highly specialized human-capital investment? And what lessons can others seeking to effect large-scale social change with limited resources draw from ECHO's success?

In our view, the answer lies in its innovative organizational design. When COVID-19 struck, ECHO did not shift its operations on command from a central leader, as might occur in a traditional organizational structure. Instead, ECHO's very model as a diffuse collective of autonomous clinics joined by a mission to disperse best health practices enabled this transformation to happen naturally and fluidly.

TELEMENTORING, NOT TELEMEDICINE

Sanjeev Arora, MD, the founder and director of Project ECHO, has a quiet, understated charisma. He listens intently and has the ability to make you feel that you are the center of his universe when engaged in a conversation. A problem solver by nature, Arora has a focused, contemplative energy and meditates twice daily. In the early 2000s, the physician had already been working as a liver specialist at the University of New Mexico (UNM) School of Medicine for years but was frustrated by his inability to treat all the patients who needed his care and knowledge. Those with the hepatitis C virus (HCV) had to wait eight months to access his university clinic—and by the time he saw many of them, their conditions had worsened, sometimes terminally.

The memory of one particular case haunts him: A widow and mother of two came to him with advanced liver cancer after being diagnosed with HCV eight years earlier. He asked her why she decided to seek treatment now, so many years later. She replied that her doctor told her that treatment would require her to make at least a dozen trips to Albuquerque over the course of a year and she couldn't afford to take the time off work. She needed that money to feed her family. She therefore did not seek treatment. She died five months later.

"I asked myself: Why did this mother of two children have to die?" Arora recalls. "We had the medicines and the expertise to treat her. But she didn't have the resources to get to us. And no doctor in her community had the knowledge to treat her disease. ... That's why I started Project ECHO."

When Arora created ECHO, less than 5 percent of the more than 35,000 people infected with HCV in New Mexico were being treated at all. And he was the only doctor treating them. In 2003, he began to focus on solving the problem, and from the beginning he wanted to solve it at scale. "I started thinking, how do I really take my talent, treating patients, and help a massive number of them?" he says. Because New Mexico is a poor state, he also had to solve the problem with fewer resources. But he believed no one should be denied access to health care due to poverty, race, physical distance, or any other such obstacle.

Arora devised a radical approach to solve this problem by virtually mentoring and training clinicians in remote areas to treat and manage complex health conditions. He traveled across the state with a nurse, Chris Oesterbo, to search for what they called "ECHO champions"—primary care clinicians who were interested in establishing centers of excellence for HCV care in their areas. Those who signed on would join Arora, Oesterbo, and an interdisciplinary team as part of a live remote telementoring session called a "teleECHO clinic" every week to learn how to treat patients with HCV. These clinicians received no additional

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compensation to participate, and many donated their time, as Arora and Oesterbo did.

The patients they served desperately needed specialty medical care. Lack of access, particularly among poor and minority populations, remains a persistent problem around the world, even in countries with national health-care systems. The approaches of emerging telemedicine and for-profit medical education companies had not solved the access problem, likely because they did not see profits in such specialized training, let alone grants or public funding. Furthermore, traditional telemedicine, built on a model of linear growth by which one doctor advises another about a particular patient, is difficult to scale. Arora wanted exponential growth: a way to spread specialty medical knowledge with a multiplier effect at scale. He envisioned ECHO as a model of tele*mentoring* by which each team of specialists, or "hubs" (usually at academic medical centers), could mentor large numbers of clinicians, or "spokes," who could treat increasing numbers of patients.

Arora's telementoring model is based on four principles. First, it employs teleconferencing technology to bring scattered members of a team together remotely. This allows many clinicians to be trained at once in real time.

Second, it uses case-based learning by holding discussions of the cases of real (but anonymized) patients. This model follows the training of medical students, who manage complex patient cases under the supervision of medical school faculty. During each teleECHO session, at least one real case—brought to the group by a spoke clinician participant—is discussed and analyzed. The episode provides a concrete opportunity for the group to examine a real treatment question, to pool their knowledge and resources, and to collectively formulate a plan based on best practices. The case is a critical learning tool; it allows different options to be weighed, poor options to be discarded, and decision pathways to be revealed.

Third, ECHO promotes best practices, by prioritizing the dissemination of the latest evidence-based approaches. And fourth, it monitors outcomes by collecting data and engaging in evaluative research. Specialized ECHO software applications allow clinicians to upload data that can be aggregated, analyzed, and shared. Data is stored in Albuquerque but freely accessible to partners, and ECHO is currently working on building a more robust data system to allow even more sharing worldwide. "Through this model of guided practice, I became an expert," Arora says. "And we did the same by mentoring our rural clinicians."

Together, these features foster a community of practice in which everyone teaches and learns improved methods, thereby spreading and "demonopolizing" specialized medical knowledge, sharing it with clinicians who would otherwise not have access to it because they were not trained as liver specialists, did not have access to a research hospital, and would therefore not be able to treat and help patients with complex conditions in remote areas. ECHO therefore turned the traditional medical model on its head: Instead of moving patients to urban and university medical centers for treatment, it moved medical knowledge to patients in rural and remote areas.

As the first cohort of clinicians across New Mexico gained more knowledge and began to treat HCV patients in their areas, Arora's patient waiting list steadily decreased. A year into the new project, it was just two weeks long. Many patients at risk of chronic and fatal liver disease because their HCV had not received timely treatment were now cured. A 2011 study published in the *New England Journal of Medicine* (NEJM) by Arora and his team documented the fact that primary care clinicians who had participated in the teleECHO clinic for one year achieved the same cure rates as doctors based at UNM Hospital. Data also affirmed that the ECHO model created new access to specialty care for patients who were underserved, such as African Americans, Latinos, and Native Americans. 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.

ECHO is highly decentralized and organized as a network of partners around the world, who have minimum obligations to each other.

"They get better care and there is better adherence to the treatment," Arora says. "They trust their own doctors."

THE ORGANIZATION AS MOVEMENT

None of ECHO's four telementoring principles, taken individually or together, are particularly unusual. Its organizational model, on the other hand, sets it apart. Arora could have set up a traditional nonprofit or for-profit organization that owned all the intellectual property and managed the operations centrally. But he did not do that. Instead, he made giving away ECHO's intellectual property free to its partners its core goal and mission, and shaped its organizational model accordingly.

Arora, a liver specialist, launched Project ECHO to improve treatment for hepatitis C across New Mexico. The ECHO model now addresses numerous diseases worldwide.

"I had to be very clear that nobody could interfere with the idea of giving it away for free to everybody, because I wanted to reach the poorest people in the world and the people who care for them," Arora says.

What kind of organizational model can support this goal? Not a traditional nonprofit or a government-linked, public-private partnership, Arora believes. "For-profit organizations in general have the ability to scale, but they don't really have the ability often to build equity—poor people often get disenfranchised," he says. "I had a very hard time finding any not-for-profits that had scaled globally and helped a billion people because they have a competing interest, which is sustainability. Because they are not sharing their intellectual property for free to people in the world, the overall impact of their innovations is minuscule."

Instead of replicating existing organizational templates, Arora created a new scaling model for his telementoring project based on the structure of a social movement. "What really has scaled globally? Movements scale globally," Arora says. "Why? Because I'm not putting my own interests and mixing it up with the interests of the movement."

This movement-like organizational model features two highly unusual components. First, it fuses elements of three different organizational structures into ECHO's institutional design. In other academic work we are currently writing about ECHO, we refer to this new model as a *nonprofit networked platform*, which fuses elements of the traditional nonprofit, the for-profit "platform firm" (like Airbnb), and peer-to-peer production networks (like Wikipedia).

The second odd element is that the hub and spoke clinics in the network—which collectively form the platform—are never "just" ECHO clinics and nothing else. The clinics are always embedded in a local organization. Effectively, each ECHO location is what we call an *organizational symbiont*, one of two organizations living in symbiosis. ECHO clinics are always symbionts of some larger organization, typically a university, a hospital, a medical center, or some other type of organization, or even a for-profit or nonprofit clinic. ECHO refers to these organizations as "partners." They serve as the "host" organization for each ECHO clinic, be it a hub or a spoke. Such symbiotic relationships enable ECHO to operate as a network in a heavily regulated industry that requires advanced and expensive human capital. Each clinic exploits the regulatory power and resources of its symbiotic host, and in return, it advances the achievement of the mission and goals of those hosts.

Project ECHO's headquarters, for instance, the nonprofit ECHO Institute, is the functional equivalent of an academic department, housed in the UNM School of Medicine in Albuquerque with approximately 140 employees. It is also a hub for a local network of spoke partners, which consist of dozens of clinics spread around the state of New Mexico. UNM acts as the symbiotic host for the ECHO Institute; both work synergistically toward the same goal of advancing medical and health care in the state of New Mexico and worldwide.

The ECHO Institute is not a headquarters in the traditional sense of the word. ECHO is highly decentralized and organized as a network of partners around the world, who have minimal legal and governance ties to one another and no financial ties to the headquarters. Partners sign an agreement with the ECHO Institute in New Mexico, committing them to faithfully adhere to the ECHO model and not to sell or franchise it. ECHO and its partners have no financial obligations to each other. The institute does not charge to join, operate, or sustain teleECHO clinics that partners create. Partners must fund and cover the costs of their teleECHO clinics (through their home institutions, grants, government funding, philanthropies, etc.).

Costs vary but usually at a minimum include clinicians' time, an IT specialist to handle technology, an administrator to organize and manage clinics, and computer equipment and internet access. The at-cost amount to start a new ECHO varies, from $50,000 in India and Africa to upwards of $250,000 in the United States. ECHO gives away its intellectual property for free to partners, including training materials, operating documents, access to teleconferencing, and other technology (including a free Zoom license). It also provides free training and support, access to research, formal networks for partners to collaborate with each other, information about funding and grants, and opportunities to network and engage in research with other partners around the world.

Critically, the ECHO Institute does not set the agenda for its own spokes or for other hubs and their spokes. And hub partners are free to modify the ECHO content to address the needs of their local context (e.g., choose a disease to manage that ECHO has not addressed before or add a new type of team member such as a nutritionist). As it is, the ECHO model serves most clinics well and does not need to be completely transformed for a local audience.

The creation of a new teleECHO clinic is also locally autonomous: It usually does not involve the participation and feedback of ECHO Institute staff. Adopters in a hub, the knowledge suppliers,

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need to identify and coordinate with local spokes—clinics that have a demand for their knowledge. But replicating the ECHO model does not require the "main" ECHO Institute to create local teleECHO clinics together with adopters around the world (although it provides technical support and access to networks). It merely requires individual adopters in each localized platform—hubs and the spokes they recruit—to replicate the model as they see fit for their context.

The primary challenge in situating ECHO, then, is to expose potential partners to the model, teach them how it works and how to use it, and build alliances and networks that support the partners' ability to establish their own individual ECHO clinics. The four core principles of the ECHO model may seem straightforward and easy for partners to replicate, but they are not in practice. Training clinicians and professionals remotely is not like some of the most well-known virtually enabled, peer-to-peer activities, such as contributing to Wikipedia, where the work can occur in isolation in fully distributed, decentralized, and virtual networks. Creating, running, and sustaining successful teleECHO clinics is nuanced and complicated. In addition to funding, it requires creating and training a clinic team, running clinic sessions, collecting data, and practice.

Project ECHO staff recognized this need early on and created on-site orientation and immersion trainings each month in its Albuquerque, New Mexico, offices for potential partners. COVID-19 has moved these sessions online. During these sessions, partners observe and then discuss teleECHO clinics in real time, participate in mock clinics, engage in role-plays, and receive extensive feedback. They also learn how to develop curricula and case presentations; master various technologies; and meet with ECHO specialists to discuss a broad range of issues, including funding and grant writing, measuring outcomes, working with governments, and recruiting participants, among many others.

ECHO RESPONDS TO COVID-19

The COVID-19 pandemic has offered an excellent stress test of Project ECHO's model. When the virus struck, the organization had already grown far beyond New Mexico and the United States. The 2011 *NEJM* publication on ECHO's effectiveness had sparked enormous interest among clinicians in the United States and around the world, who subsequently adopted and adapted the ECHO model to address more than 70 different complex health issues, from chronic pain and diabetes to autism, palliative care, and opioid-use disorder treatment. The ECHO model had also begun to spread beyond medical care to deal more broadly with public and mental health, education, policing, community development, and other social services for economically and socially vulnerable populations. By early 2020, ECHO had more than 800 clinics and programs from Montevideo to Mumbai, and had trained more than 96,000 practitioners in nearly 40 countries using 400 ECHO hubs and more than 20,000 community clinics and clinician spokes.

The crisis would demand a daunting amount of complex information and knowledge to be shared around the world to guide effective medical and health practice. But ECHO had a 17-year track record of effectively and efficiently disseminating complex knowledge through guided practice via a decentralized, virtual, global network, using their flexible organizational model to scale quickly. When COVID-19 emerged, Arora and his team therefore felt they were well positioned to deal with the crisis. The pandemic required not just medical and protective equipment but systems of knowledge that could spread as fast, if not faster, than the virus.

"We immediately realized that this is a new game for the world," Arora says. "And this is a dynamically complex problem, and complexity arises in all phases as you amplify the public health response. So we anticipated very early on that this would be a rapidly changing game. And there really wasn't any other easy way to communicate this information to the last mile." Arora and his team were not deterred, though, because they had a presence in 153 countries and a platform that almost a hundred thousand learners were already using, many at academic hubs that had tremendous expertise and resources.

Given ECHO's flexible organizational design, in which each local hub and its spokes can choose to focus on very different issues, how did ECHO clinics around the world coordinate and decide to shift operations toward COVID-19 response? Therein lies the strength of the model: The same flexibility that enables local specialization also enables ECHO clinics to pivot collectively to meet a specific global challenge, should they so choose. This flexibility also allowed the ECHO Institute in New Mexico to temporarily rescale its own operations, working through its existing global networks, to directly reach its global audience.

Operations at the ECHO Institute in New Mexico rapidly converted a significant number of clinics to deal with COVID-19-specific trainings, delivering a wide range of COVID-19-related specialized medical, health, and community welfare services, from urban hubs to remote locations. "The interest was absolutely mind-boggling," Arora recalls. "Every time we opened a COVID-19 session, a thousand people would join."

Project ECHO's relationships with national and state governments also enabled them to scale quickly and to work at multiple spatial scales at once, pursuing local, national, and transnational initiatives simultaneously. "Governments came to us, which was the biggest mover," Arora says about the huge numbers attending their COVID-19 sessions. "India alone has trained 320,000 learners on COVID-19." Governments were already partnering with ECHO on tuberculosis (TB), HIV, mental health, and HCV, so the transition to coronavirus was smooth.

By April 2020, the ECHO Institute had stopped all non-COVID-19 programs and transitioned quickly to creating new COVID-19 clinics or embedding COVID-19-related training—from personal protective equipment (PPE) use and mitigating transmission of the virus to emerging treatments—into existing ones. ECHO hubs across the United States also pivoted to deal with the crisis, including partners

in at least 33 states. ECHO host organizations and the US federal government desperately needed information about COVID-19, and the ECHO model delivered it quickly and efficiently.

The ECHO Institute also worked with the Office of the US Assistant Secretary for Preparedness and Response (ASPR) at the Department of Health and Human Services (HHS) to launch COVID-19 Clinical Rounds, a peer-to-peer learning platform for frontline clinicians in the United States and globally. Each week, 400 to 1,700 participants log in and navigate the unknowns of COVID-19 together.

The ECHO Institute in New Mexico did not lead international efforts, but it did not need to. ECHO's autonomous partners around the world rapidly and voluntarily shifted their operations, in ways that matched their local context and within very different existing ECHO networks, which had been operating at diverse geographical scales to address varied conditions. In Southeast Asia, Vietnamese doctors moved quickly in early 2020 to focus on advance preparations and training for COVID-19 as they realized the disease was already likely taking hold, given their geographic proximity to the origin in China's Hubei province. Vietnam's National Lung Hospital, which had been running the TB ECHO for five years, leveraged their system to connect all the lung hospitals for COVID-19 pulmonary disease. And the National Children's Hospital used their ECHO platform to train 12,000 health-care workers in Vietnam. They immediately saw the opportunity to exploit videoconferencing to meet the scale of need. Soon they went from training 100 people in a room to training 10,000 people across hundreds of institutions. "They were donning and doffing PPE to train people how to do it," says Bruce Struminger, MD, the ECHO Institute's senior associate director and one of its leads for international partnerships. "I mean, they were taking advantage of the visual aspect of videoconferencing."

But flexibility comes with a cost: If partners can ignore one principle, what else can they ignore? Will ECHO lose its distinctive identity?

At the same time, organizers of the US-Mexico binational TB ECHO clinic with Mexico's National Institute of Respiratory Diseases in Mexico City decided to focus on COVID-19 with the help of experts from the US Centers for Disease Control and Prevention's (CDC) COVID-19 International Task Force. They opened it to participants around the world, and more than 1,000 clinicians from 30 countries participated.

In Latin America, the TB clinics were not the only ones to shift to COVID-19; HIV ECHO clinics did as well. Diana Forno, MD, of the CDC's Central America Regional Office, and her colleague Janell Wright lead a regional program in Central America supported by the President's Emergency Plan for AIDS Relief (PEPFAR). Leveraging their TB and HIV ECHO programs, they developed a COVID-19 ECHO program that engages participants from 20 countries in Central and South America. But the COVID-19 lockdown prevented the two doctors from performing site visits or providing on-site technical assistance. Because many health-care workers on HIV sites were starting to work on COVID-19, they decided to start using the HIV ECHO telementoring programs to provide information on COVID-19 to the HIV sites' staffs. They then decided to create a new ECHO clinic, specifically for COVID-19, and to expand it to all health-care workers responding to the pandemic. "Since we already had the infrastructure and knowledge of ECHO, we could launch a regional COVID-19 ECHO within a week," Forno says.

In Africa, where the pandemic hit later, many countries initiated quarantine orders, which made it even more difficult for patients to receive specialty care. Leonard Bikinesi, a physician and chief clinical mentor for HIV for the Namibian Ministry of Health and Social Services, had been running HIV ECHO clinics since 2015 and assisting other African countries in building their own ECHO clinics. He realized that his team could use ECHO to deal with COVID-19 and started a series of trainings to help health-care workers with background information on COVID-19 and the populations most affected, as well as up-to-date knowledge on effective treatments. "We also looked at the infection prevention control measures that we could put in place to protect ourselves as health-care workers, and to protect our patients, especially the vulnerable patients," Bikinesi says.

Bikinesi views the ECHO model as particularly well suited to rapid transitions, because it is easy to implement, its partnership documents are flexible, and it respects the autonomy of local partners. "When we expanded from HIV to other subject areas, we never asked the ECHO Institute, and they never came to us and said, 'You can use it for TB,'" he says. "It was more of us telling or updating them that now we are using the model for TB, we are using it for HIV drug resistance now, and we will also be using it for COVID now."

Together, these organizational features enable him and his colleagues to use ECHO generally to respond to the particular health-care delivery challenges of the region. "There are not a lot of specialists in African countries," Bikinesi says. "And those that exist are not

Sree Devi Merum, MD, addresses two rural community health workers in Lepakshi, India, who, through an ECHO program, learned to screen women for cervical cancer.

evenly distributed across all the government and facilities. We have these challenges, and the model really addresses these challenges."

On a pan-African basis, the ECHO Institute is also working with WHO to conduct an integrated disease surveillance and response training for 13,000 district- and regional-level health workers, who are responsible for reporting surveillance data about infectious disease. The two organizations plan to create 47 Integrated Disease Surveillance and Response ECHOs, one in every country in the WHO's Africa Region. From the ECHO Institute in New Mexico, experts in each country will be trained to run ECHO clinics, who will in turn form their own community of practice. To accomplish this, each week, the ECHO Institute and WHO will run an interactive webinar on a given topic in three languages, with thousands of participants across countries. Then, in-country WHO and national ministry of health experts will run country-specific ECHO clinics in the 47 WHO member states, allowing for local adaptation.

The program promises an appropriately flexible response to COVID-19 that adjusts to differences in local contexts in different countries. The limberness of this multiscalar model represents an advance over other existing continent-wide approaches. "[The ECHOs] can focus on the country context, what's going on in their country," says Struminger, who liaises between the ECHO Institute and the African ECHOs. "I mean, that's the problem with the big continental programs. They allow certain messages to be harmonized. But then, how those get implemented in each country has to be tailored and customized."

THE CHALLENGES OF COVID-19 AND BEYOND

Although the COVID-19 response has highlighted many of Project ECHO's strengths, it has also exposed some weaknesses. Two such flaws are particularly noteworthy, because they concern its organizational model. First, ECHO has struggled to secure fidelity to its principles: COVID-19 has compelled ECHO to compromise on a strict adherence to a case-based approach. ECHO has always encouraged partners to abide by the model, but given its decentralized structure, it has not mandated or enforced sanctions for violators, nor has it even monitored for compliance. In order to scale and innovate quickly and meet its ambitious goal of reaching one billion lives by 2025, ECHO's leaders had felt the best strategy was to offer "carrots" rather than to use "sticks," as they put it. This policy generally was effective, until COVID-19.

Under the stresses of the pandemic, many partners eschewed the use of cases. They wanted to use the model quickly to spread new information and knowledge around the world about the virus, its spread, new and emerging risk factors, treatment, testing, containment, hospital safety, and research, among many other issues. Soon, the majority of new and preexisting teleECHO clinics focusing on COVID-19 were not using cases at all.

ECHO's leadership team in New Mexico decided that meeting the mass needs presented by the pandemic far outweighed the importance of fidelity to the model, and programs moved forward to help disseminate knowledge swiftly across networks of medical professionals; government officials at federal, state, and local levels; and policy makers. "I made a very clear decision," Struminger recalls. "If I thought what we were doing was helpful, I wasn't going to be the ECHO police and say, if a partner wants to conduct 'experience from the field' presentations, which aren't exactly cases, we're not going to say, 'Well, we can't help you right now.' We're going to help you. But hopefully, while we're helping you, we're going to introduce you to this idea of case-based learning."

For partners such as Bikinesi in Namibia, this flexibility and autonomy makes ECHO attractive and useful: "The model is

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case-based. But in some instances we have found ourselves using it for pure capacity building, where we do a block training before we start discussing the issues. So all these changes we've actually put in place are different from the original model."

But flexibility comes with a cost: If ECHO partners can ignore the case principle, what else can they ignore? When something becomes so flexible that it can be used for anything and everything, does it lose its distinctive identity? Research has shown that when organizations abandon their core principles, particularly when chasing scale, they can degenerate. Whether ECHO faces this threat, and whether the model will formally evolve, postpandemic, to make cases optional, remains unclear.

Donald Berwick, MD, one of the foremost experts in health care in the United States and in quality improvement around the world, views this flexibility as ECHO's essential strength. Berwick, who ran the US Centers for Medicare and Medicaid Services and cofounded and served as CEO and president of the groundbreaking Institute for Healthcare Improvement, suggests that emerging variation is an essential component of the ECHO model.

"It can't spread without change," Berwick says. "Variation is knowledge. It's knowledge that people out there are adding from their local context. And that knowledge is spreadable too. So one of the great challenges and frontiers for ECHO to me is to celebrate the variability. Don't fight it. Standardize what has to be, but learn from the variation."

ECHO faces a second drawback in the precarity of its funding. In June 2020, at the height of the pandemic's first wave, ECHO was struggling to fund its COVID-19 clinics, particularly in the United States. Arora was invited to present testimony to a hearing of the US Senate Committee on Health, Education, Labor, and Pensions, to address telehealth and lessons from the COVID-19 pandemic. Arora was determined not to let this opportunity to highlight ECHO's unusual approach and improve its access to public financial resources pass him by. He urged senators to explore longer-term changes to health-care funding that supported telementoring, because the need for it would persist long after COVID-19, and the potential for extended application was significant.

After beginning his testimony with the story of the patient whose death had caused him to create the ECHO model, he returned to her to close his remarks. "I am committed to working with you to help realize the promise of telehealth, and ultimately seeing the day when a mother's survival doesn't rest on her ability to take a five-hour car ride 12 times a year," he said. "If we together can make that happen, this will have been the most powerful telehealth session I've ever been part of."

Why did he need to make this plea for resources? Despite its success, ECHO continues to receive limited US public sector financial support. Of the ECHO Institute's total funding of almost $17 million, approximately 40 percent comes from federal and state governments, and 60 percent from private sources. Because ECHO clinics do not involve direct patient care, clinicians' time is not billable and therefore not reimbursable by insurance. As such, the ECHO Institute and the teleECHO clinics run out of UNM are primarily funded by voluntary grants and foundation funding, with some support from the state of New Mexico. To alleviate some of its funding challenges, the ECHO Institute is actively working with governments and nonprofits to explore alternative financing models, including ways Medicaid can cover teleECHO clinics.

These funding challenges derive partly from its organizational model: As a decentralized organization that gives away its intellectual property, ECHO lacks retained profits to reinvest in research, development, and operations. One way ECHO attempts to overcome this is by partnering with academic institutions and researchers. Through collaborative research partnerships, it can better measure its goals of improving health and social service outcomes, while still avoiding the profit motive. ECHO leadership hopes that such research helps further increase the take-up of its model and ultimately leads to improved public health funding.

REALIZING HEALTH CARE AS A HUMAN RIGHT

Why should we care about one organization's ability to pivot so quickly and at scale in response to COVID-19? We know of no other case where a global organization has shifted its existing and ongoing operations—at scale—to so rapidly address social problems in a changed environment. So if Project ECHO can do this, what else can it, or other organizations like it, do? Could its unique and innovative organizational model be expanded or replicated to solve many of our most pressing social problems?

Social movements are often praised for being highly effective for drawing attention to social problems, while also being dismissed as lacking staying power, largely due to their inability to be successfully and formally institutionalized. ECHO's organization-as-a-movement approach suggests that it is possible to overcome this limitation through an innovative organizational design that internalizes many of the mobilizing structures often involved in a traditional social movement.

ECHO's fundamental model is the provision of free resources across its network. Because the COVID-19 crisis was so big, yet resources were being shared across the network, partners were also able to pivot, just as a distributed movement can pivot in the wake of a triggering event. But here, the shift was accomplished within and across an entire organization. Organizational experiments like Project ECHO thus demonstrate the viability of alternative, movement-like organizations to rapidly change at scale, while advancing the greater good.

"There's got to be a way to think about health care as a human right that is connected to a mechanism that works," Berwick says. "ECHO is that. It's a tremendously powerful way to extend the best care to everyone, to absolutely everyone, to leave nobody out. It makes health care as a human right be real." ■