Texas Tech University Health Science Center
ECHO Implementation Profile

"It's not just preaching to the choir, but the choir is preaching to us as well."

The Palliative Care and Telemedicine ECHO programs at the Texas Tech University Health Sciences Center (TTUHSC) were part of a study, led by Diffusion Associates and funded by the Robert Wood Johnson Foundation. The purpose of this study was to document and share how ECHO is adopted, implemented and sustained across ECHO hubs and programs in the United States and Canada. This study was separate from, but endorsed by, the ECHO Institute.

Laura Lappe, a program manager at TTUHSC with ECHO responsibilities, was a 2021 implementation fellow and worked with 14 other fellows alongside Diffusion Associates in conducting research for this study. Katie Stangl, then a project coordinator with MeND Recovery Services ECHO in Minnesota and a 2021 implementation fellow, conducted interviews with R. Sam Larson, PhD, director of Diffusion Associates, in August 2021 which are the basis of this profile.

We begin this profile by sharing unique implementation insights from Texas Tech University Health Sciences Center (TTUHSC), including the Telemedicine and Palliative Care ECHO programs.

ECHO Implementation Insights

Lean Staffing

ECHO work at TTUHSC was lean; no one had full-time responsibility for the work. Medical experts had to take on some of the administrative work; they identified and contacted speakers, reviewed slide decks, and recruited participants. It helped that many people went to immersion training and had a shared understanding of what needed to be done. Sustaining the work, however, may require staff time dedicated to ECHO. Staffing required to sustain an ECHO may be different from what was needed to initiate an ECHO.

Decentralized Approach

TTUHSC did not have a distinct hub that supported all ECHO programs, though there was some support from the F. Marie Hall Institute. ECHO resided in programs – as part of a larger initiative or effort. Growth was likely to continue as a decentralized activity unless or until there was an effort to bring all parties together to develop a shared vision.

Partners Near and Far

Both programs relied on partners to make ECHO happen. They drew from the University's Medical School, School of Health Professions, School of Nursing, School of Pharmacy, and the Biomedical Sciences Division. The F. Marie Hall Institute for Rural and Community Health was a lead (Telemedicine ECHO) and a partner (Palliative care ECHO). The Telemedicine ECHO program cast a large net and brought in speakers from across the country. The Palliative Care ECHO worked with medical fellows and community organizations in the local and broader region. Partnership support helped to offset limited staffing and a decentralized approach to ECHO.

ECHO Model Adoption

In 2017, Billy Phillips, PhD, executive vice president for rural and community health at the F. Marie Hall Institute for Rural and Community Health (Institute), returned from a conference and "came into the office and said, 'ECHO's the next thing!' and off we all went to get that into place." Phillips was described as an "avid supporter" of ECHO because it was a good fit for his interest in "expanding our footprint with telemedicine."

Phillips and Cameron Onks, an attorney working with the Institute, attended immersion training in New Mexico in 2018. Onks managed the contracts between the ECHO Institute and TTUSHC and took a lead administrative role for ECHO – work that well fit his new position as director for Innovations in Health Technology in the Institute. Ariel Santos, MD, director of the Surgical Intensive Care Unit at TTUHSC School of Medicine and director of the Office of Telemedicine also attended immersion training with Phillips and Onks. Laura Lappe, the program coordinator, attended immersion training as well. Lappe had been working in telemedicine since 2009 and had been aware of ECHO for some time as it "runs a little parallel to our work." Lappe described ECHO as "telemedicine for providers."

ECHO was a good fit for the Institute's focus on telemedicine and rural and community health, especially work underway to develop telemedicine contact points in rural clinics and hospital districts. Yet, the Institute did not have an ECHO hub, rather they collaborated with ECHO programs "to pursue their individual goals when they need our help. Support may be directly assigning personnel to their projects or simply sharing resources that we've developed." The ECHO team was lean—Onks, Santos, and Lappe—and no one person devoted more than .20 FTE to ECHO. The Institute was an independent unit and reported directly to the president of Texas Tech University Health Sciences Center. The Institute collaborated closely with the Medical School, School of Health Professions, School of Nursing, School of Pharmacy, and Graduate School of Biomedical Sciences. These relationships were important as they provided "speakers from a variety of different disciplines and backgrounds."

Telemedicine ECHO

The Telemedicine ECHO was based in the TexLa Telehealth Resource Center, a program located within the Telemedicine Division in the F. Marie Hall Institute for Rural and Community Health. The TexLa Telehealth Resource Center was funded externally as one of 14 regional Telehealth Resources Centers in the United States. Santos started this ECHO shortly after attending immersion training. This ECHO program encouraged people to adopt telemedicine practices—practices that were far-reaching and diverse, from evaluating a patient to the use of drones. The program aimed "to make people more aware of telemedicine and its utility, not just in providing acute care, but in all the departments and specialties of medicine, as well as for education." Funding came from the CARES Act to develop a program to "train clinicians on how they could use telehealth and telemedicine in place of in-person services and to directly treat COVID to the extent that that's possible." This ECHO started in October 2020.

Palliative Care ECHO

This program was started by Kelly Klein, MD, Louis Lux, MD, and Stephen Gates, MD, who all specialized in hospice and palliative medicine in the School of Medicine at TTUHSC. Lux saw what was happening with Hepatitis C at the ECHO Institute and became interested in the model. He attended immersion

training, which was a "great experience" and became a "launch champion," starting the first ECHO program at TTUHSC. Initial adoption of the program was aided by "shadowing a couple of palliative care ECHOs to see what they were doing." This program attracted participants from a broad geographic area, as well as local partners such as a "huge healthcare system across the street that has a mirror image of what we do in our field." Participants included TTUHSC colleagues who were learning more about palliative care.

The Palliative Care ECHO worked largely independent of the F. Marie Hall Institute for Rural and Community Health. Unable to access the telemedicine facility in the Institute, Lux looked to the Medical Education Department to provide a "camera that we set up in our little conference room." Eventually, the Institute and the Palliative Care ECHO began to collaborate more, including having Lappe provide guidance to a coordinator, Erin Klein Mustian, who provided basic support to the Palliative Care ECHO and who had not had formal ECHO training. The Palliative Care ECHO did not have funding specific to operations. Rather, "everyone's time is sort of kind of tossed in, and we're kind of borrowing it from everyone at this point in time." The ECHO program used external grant funding to pay for equipment, a banner, and their annual CME fee. This ECHO program started in 2019.

The physician leads associated with the Palliative Care ECHO and the Telemedicine ECHO were champions for this work. They adopted the model at about the same time, though they operate largely independently. The Telemedicine ECHO had funding for their work and therefore more dedicated support. In contrast, the Palliative Care ECHO had not been funded, outside of some initial support for technology and CMEs. Operational support came from "stealing time." Adoption of the ECHO Model was also tied to the strategic plan for TTUHSC which had emphasized telemedicine for the past decade.

ECHO Model Implementation

The ECHO Model seeks to build a learning community where "all teach, all learn." This is done by leveraging technology, by sharing best practices, through case-based learning, and using data. We asked respondents to tell us what "all teach, all learn" (ATAL) meant to them. A consistent expression of ATAL focused on the "bi-directional information flow, where you have a group of experts at the hub. But they're not just dictating the conversation, everyone is giving input. It allows for the spokes to inform the experts while informing the other spokes." The "bi-directional nature is really the difference maker" and set ECHO apart from other educational efforts. ATAL meant you provided "the opportunity to actually ask questions, or bring up scenarios, or exchange information that adds to and enhances what we've talked about in an ECHO." Respondents were clear that this was not a one-way push of knowledge. Santos' thoughts resonate with what we heard, "It's not just preaching to the choir, but the choir is preaching to us as well," and the provider isn't just "the pastor in the pulpit, but rather receiver of knowledge as well." ATAL was also about forming relationships according to Lux. By inviting the local community to participate in the Palliative Care ECHO, ECHO "helped get people together and create relationships. This is a great unintended consequence."

ATAL was reinforced in how the Palliative Care ECHO and the Telemedicine ECHO enacted the four principles of the ECHO Model. Both programs used Zoom, which had become "more and more common" especially because of COVID. Santos noted that "before COVID, nobody liked to use Zoom. Now it's a necessity. Everyone is Zooming."

Lead physicians in both programs selected didactics with some input from participants. Lux commented that the topics for the Palliative Care ECHO were based on his and Klein's experience but "even if we've

come up with the content, and the presentations, we try to push it around to encourage involvement from the community." External presenters were given a master PowerPoint deck to work with and presentations were reviewed in advance. For the Telemedicine ECHO, Santos stated that he and Lappe were "very attuned to the needs" of their audience and that he anticipated push-back and future opportunities and incorporated that into the didactic. Both programs included participants in identifying topics for future sessions. For the Telemedicine ECHO, participants "fill out a survey and part of this asks what topics you want to include in the future" as a way to "get the wisdom of the crowd." Topics had also been suggested through conversations with spokes in the Palliative Care ECHO.

The Palliative Care and Telemedicine ECHOs aligned cases with the didactic topic. This was possible largely because neither ECHO program relied on participants to present cases. Lux commented, "We haven't been able to get cases from people. We've got ideas for ECHOs, concepts on what to cover from our participants, which is good, but in terms of a case presentation, as in the ideal model of ECHO, we haven't had that." Instead, the Palliative Care ECHO "created its own case content," which encouraged "bi-directional learning." In the Telemedicine ECHO "all presenters are invited to present cases as well because there is an interesting connection between the didactic and the case studies. It lends itself to a flow during the session." In both ECHO programs, presenters did not complete a case-form in advance. Rather, the conversation was moderated so that the case evolved and generated discussion. Evaluation was differently implemented in the programs. The Telemedicine ECHO submitted iECHO information whereas the Palliative Care ECHO did not; they would like to, but lacked the bandwidth and training to submit the data.

Overall, the two ECHO programs were implemented in similar ways although they were implemented in two separate organizational divisions. Variance to the ECHO Model, especially in the use of cases, did not appear to diminish engagement—no one suggested that it was a challenge to get spokes to participate in the discussion. The lack of a robust evaluation plan reflected limited dedicated staff time, the relative newness of the programs, and uncertainty about the sustainability of the programs.

Factors Influencing Implementation

Studies of program implementation identify contextual factors that can shape how a program was implemented. These factors include leaders and champions, state and federal policies, funding, partnerships, and internal organizational structures and processes, monitoring for quality and fidelity, and staffing—including how people were trained and the characteristics of the people leading and supporting the program.

Not all of these factors may play a role in how ECHO was implemented here or elsewhere, and some factors were more important than others. Below, we identify factors that emerged during interviews and appear to have the most impact on how Project ECHO was implemented at Texas Tech University by the Palliative Care and Telemedicine ECHO programs.

Funding

The Palliative Care ECHO was initiated through external funds, but these funds were not expected to last. Funds were also insufficient with staff "stealing time" to support ECHO work. Lack of funding for a dedicated coordinator was one reason the Palliative Care ECHO "trudged along with stops and starts." Ongoing funded was also not secured for the Telemedicine ECHO and the physician lead, Santos, was

considering shifting the topic from Telemedicine ECHO to something like a Critical Care Medicine ECHO to both meet need and to secure funding.

The F. Marie Hall Institute for Rural and Community Health did not dedicate funds to ECHO and it too relied on external funds to support its programming. Onks expressed concerns about the current EHCO funding model: "When you rely on the goodwill and the benevolence of providers to lend their time, and step in and just say, 'I won't be paid, but I'm interested in seeing others learn, so I will teach for an hour or lend an hour of my time.' That absolutely works to a limited extent, but it has its limitations. Especially when you've got clinicians who are increasingly burdened and burnt out because of their schedules. There needs to be a funding mechanism to incentivize that participation."

Without funding, especially for staffing, the implementation of these two ECHO programs depended on benevolence and, as Onks indicates, there could be a limit to that.

Organizational Staffing

Both ECHO programs benefited from access to experts at Texas Tech University. There was also adequate knowledge to implement ECHO. What was lacking was time – time for any one person could devote to ECHO. Lappe, the person with the most time dedicated to ECHO work at TTUHSC, devoted no more than 10 percent to 20 percent of her time. The coordinator for the Palliative Care ECHO had even less time devoted to ECHO as she was funded as program coordinator for Medical Education. A portion of Santos' time was currently paid to work on ECHO via CARES funding— but that was ending. Lux donated his time. Onks described ECHO as part of his larger role but he was also leaving the university. With limited coordinator support and a reliance of the "goodwill" of experts, staffing emerged as a central factor shaping ECHO implementation in these two programs.

Networks

ECHO was not a stand-alone program at TTUHSC. The Telemedicine ECHO was housed within the F. Marie Hall Institute and benefited from the Institute's long history of working in telemedicine. The Palliative Care Program resided within the School of Medicine. Both benefited from relationships within and across the medical schools at TTUHSC. Both also drew support from a larger, external set of partnerships. The Telemedicine ECHO drew on the "goodwill" they had built with the TexLa Resource Center since 2012. Onks described the F. Marie Hall Institute as having a "deep contact lists to pull from. We have a lot of goodwill built up through the various other projects that we've operated." This network helped with recruiting speakers and participants. The Palliative Care ECHO reached out across the region, and outside the state, to invite and encourage engagement across the palliative medicine community and, in so doing, strengthened the palliative medicine community in the region.

ECHO Vision and Sustainability

When asked about the vision for ECHO at the Texas Tech University Health Sciences Center, growth was what respondents had in mind. Growth included extending "the ECHO footprint from the Telemedicine ECHO and the Palliative Care ECHO into multiple ECHOs to address multiple provider types more specifically and cover a wider range of subjects" and to "reach a larger and larger audience." Growth was more likely to result from "ECHO attached to programs much like Telemedicine and Palliative Care ECHOs," that is, "ECHO worked into a larger stream and not ECHO as the stream." The vision was not for a larger hub directing growth but for programs to emerge from departments and practices; for example,

by "putting ECHO into grants, working with others who might be writing a grant to include these ECHOs." The Palliative Care ECHO expected to grow by connecting with "other people within the Health Science Center, to get their participation on a relatively regular basic" and gaining "continuous involvement from our local community." The Telemedicine ECHO program wanted to grow as well, though their plans included more centralization of ECHO support.

Some respondents wanted to become a superhub, though this was a "lofty goal." Santos saw superhub status as a "great way to leverage telemedicine" and other ECHO programs. Lux talked about superhub status as well, but his comments were specific to developing a superhub for palliative care. Lux wanted to connect with other Palliative Care ECHOs and re-engage with an ECHO Collaborative that focused on palliative care. Lux envisioned "an inpatient palliative care unit inside of our city" that could function as a "platform for a lot of ECHO activity; we would actually have ECHOs that physically start from that space."

Growth required funding. Ideally, funding would be "appropriated to the university by the Texas legislature" although how and who could make that happen was not clear. The F. Marie Hall Institute was largely grant funded and their staff were "constantly looking for the next grant opportunity." They had not worked with private foundations, but acknowledged that that would be a potential funding source for their work. One potential source of funds were benefactors who had an interest in supporting the palliative care mission. Lux had a few meetings with such benefactors where he shared the need for an ECHO coordinator. He said the community of Lubbock had a "very strong financial base, it's very diversified, and the community is growing" and it could provide funding.

Growth of any kind was also dependent on dedicated staff. ECHO did not "simply happen; there is a lot of legwork that goes into it." Staff growth was described in two ways. One was to have centralized full-time dedicated staff to assist ECHOs at TTUHSC "get all of their logistics in place." The other approach was to have a full-time coordinator embedded in specific ECHO programs who could provide "discipline with regard to the cadence of our ECHO, and to also do the hard groundwork. We want that position hardwired in the near future." Santos was ready to "pass the torch to someone who could do this full-time" but it was not clear who would pick up the torch.

Program growth and funding were related to showing results, and this was another goal expressed. Evaluation that "shows increased provider adoption, then patient outcome improvement, which then translates into lower system costs" could convince the legislature to make an investment and be taken to administrators in the university to gain support.

All respondents see the value of the ECHO Model and would like to continue it, but it wasn't clear how or if this could happen.

Respondents

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