**University of Utah Health Project ECHO**
**Implementation Profile**

*"ECHO immersion is more important than perhaps people give it credit. When you go to immersion and get fully immersed in everything ECHO, it gives you a different drive."*

The University of Utah Health Project ECHO hub, the Behavioral Health ECHO program, and Pregnancy Care ECHO program 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.

Sarah Day, education coordinator at University of Utah Health Project ECHO, was one of 10 implementation fellows in 2020, and worked alongside Diffusion Associates in this study. This case report is based on interviews conducted in October-November 2020 by R. Sam Larson, PhD, director of Diffusion Associates and Leah Willis, director of programs, ECHO Colorado, and a 2020 implementation fellow.

We begin this profile by sharing unique implementation insights from Utah Health ECHO hub and its Behavioral Health ECHO and Pregnancy Care ECHO programs.

## ECHO Implementation Insights

### *The Need to Adapt*

A key learning for this team was the need to adapt. Success was found in adherence to concepts and to what worked best for participants, and not in a rigid approach to implementation. Case-based learning was an effective method of education. Placing an emphasis on didactic learning had yielded positive results for participants. Module-based didactic sessions may work for some programs but work less well for other programs. You learn by doing and adapting overtime.

### *Hub-ECHO Institute Interdependence*

The University of Utah Health ECHO had a long relationship with the ECHO Institute, being among the earliest adopters of ECHO. They balanced, and continue to seek a balance, between "being set free to do our own thing while also being part of a larger movement so we can all be better off." This comment was specific to the rapid growth of ECHO over the past several years.

### *Documenting Impact is a Long-Term Challenge*

Even after 10 years, this team struggled with how to document and prove their impact. The funding they received from the Office of Network Development and Telehealth supported operations but did not extend to supporting research and evaluation. Said one respondent, "I just think back to our 10 years of data and how we really could have been in a different position today." Respondents shared that this frustration was felt by other ECHOs and raised questions about what role the ECHO Institute could play in aiding ECHOs to "prove their case."

### *Organizational Location Matters*

The ECHO team shifted its home base from a medical home to a business and operations home. The early association with the medical side of the health care system brought buy-in from medical leaders who might not have come if ECHO had initially been situated within a business and operations home. The move to the Office for Network Development and Telehealth created new partnership opportunities and provided financial sustainability. Yet, ECHO became one of several activities and may find itself competing with other educational programs for time and resources.

## ECHO Model Adoption

Utah Health ECHO was one of the earliest adopters of Project ECHO. Terry Box, MD, brought the ECHO Model to University of Utah Health. He first learned of Project ECHO in 2010 from a colleague who had been informed about the development of ECHO from a pharmaceutical representative. Box visited the ECHO Institute where he "saw what was going on, including the HCV teleclinic. I got the introduction to the philosophy and the platform and the full potential impact. I returned to Utah determined to recreate it." He then visited the first ECHO replication site in Seattle. Box returned to Albuquerque with a colleague who was equally impressed. They committed to coming back to Utah and "going up the administrative chain until we got some support." A presentation in early 2011 to the senior vice president for health science and department chairs concluded with the senior vice president saying, "This is incredible. We're going to support it." He then "looked at the chair of the department of surgery, the chair of the department of medicine, and said, 'I'm going to support half of this. And I want the other two of you to support 25% of it for the next two years.'" University of Utah Health Project ECHO became the third site in the nation to replicate the ECHO Model.

The support from central administration came with dual expectations—providing education and providing a business growth opportunity. That said, Box and others on the ECHO team, "clearly defined from the beginning that this is an educational program . . . to adhere to the principle that Dr. Arora had established for the movement." The University of Utah ECHO started with the Hepatitis C ECHO (HCV ECHO) that was housed in the transplant service line.

In 2015, the ECHO portfolio of programs was moved to the newly developed Office of Network Development and Telehealth (ONDT) and placed within the Education Team. ONDT provided network partners (approximately 25 affiliates) with access to clinical expertise and research resources from the academic medical center. The School of Medicine no longer provided funding for Utah Health ECHO. About 85 percent of the hub's funds come from ONDT, with the rest coming from the University of Utah Medical Group (UUMG) to cover the cost of mentors' time. Utah Health ECHO maintained its autonomy within ONDT and was seen as contributing to the business side and "building education for network partners and giving them the tools they need to give their patients care where and when they need it."

### *Pregnancy Care ECHO Program*

Erin Clark, MD, initiated the Pregnancy Care ECHO in 2015 to connect University of Utah Health providers with rural providers across the Intermountain West and share expertise on how to treat patients with high-risk pregnancies. This focus was chosen due to high maternal mortality rates for women with high-risk pregnancies. Clark expanded the program to include Amy Sullivan, MD, and Torri Metz, MD, who shared a lead mentor role. Clark, Sullivan, and Metz developed the didactic schedule and alternated being the lead facilitator. Over time, the program broadened and changed to include more

varied topics to support neonatal education for network providers. Pregnancy Care ECHO focused on the medical aspects of pregnancy and postpartum care. The Pregnancy Care ECHO attracted a diverse group of obstetric providers including OB/GYN and family medicine physicians, fellows and residents, advanced practice clinicians, nurses, certified midwives, community midwives, and students in these fields.

*Behavioral Health ECHO Program*

Box introduced Paula Gibbs, MD, to ECHO by inviting her to be part of the HCV ECHO where she provided expertise in behavioral health. Gibbs had worked for many years on the psycho-social issues associated with HIV. Gibbs observed the HCV ECHO program and found that she liked the model. She then attended sessions with Box and addressed the behavioral health issues of Hep C patients experiencing complications due to the medications used early on in the treatment of HCV. The HCV ECHO experience helped Gibbs to see how ECHO was structured and how it worked. When participants were asked what they needed, there was a resounding request for Behavioral Health. Gibbs initiated the Behavioral Health ECHO in 2014 using the original case-based presentation model. Behavioral Health ECHO focused on social, behavioral, and medical issues and participants included social workers, primary care providers, and students in the behavioral sciences who were drawn from across the region.

## ECHO Model Implementation

The ECHO Model seeks to build a learning community where "all teach, all learn." This is done by leveraging technology, 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. Interviewees with the hub and the two programs described ATAL as learning for *all* participants, that it's "not all information, education going one way. The arrows go both ways." The "arrows" also occur among the participants who seek information from each other. Utah Health ECHO has been providing programs since 2011 and respondents commented that interactions change as programs mature. Participants engage in more interaction over time "because they know each other after six years from seeing everybody else on the screen." Box commented, "I don't think we appreciate how much we learn until we have matured in the process of how the ECHO community works together." Respondents in both programs described the relationships among participants and facilitators as trusting and "an informal atmosphere encouraging dialogue and an exchange of ideas."

The Pregnancy Care ECHO included residents and "all teach, all learn" was described as an extension of their graduate education. Residents were presenting cases to learn from their mentor, but "they're also soliciting opportunities from the participants to ask questions, to teach them something that might happen in their community. That same "all teach, all learn" ethos within residency and other graduate medical programs exists within this program as well."

Coordinators with both programs credit the "all teach, all learn" commitment to the strong facilitation skills of lead mentors and their passion about ECHO. They described the mentors as willing to step in and remind the specialist that this was "bi-directional, that this is a humble environment, that we do not make anyone feel as though they are dumb for asking questions."

ECHO staff and leaders further emphasized and reinforced an "all teach, all learn" by surveying participations to identify their needs and interests; by engaging participations during sessions through polling, survey questions, and facilitating chat functions; by administering surveys after sessions to

assess the efficacy of the session and how practices might change; and discussing survey results to improve programs.

Case-based learning is often a cornerstone for "all teach, all learn." Box said, "The principle that generates the most anxiety, discussion, and disagreement, is the concept of case-based learning because not every field works well with case-based learning." For some ECHO programs, the topics were complex and required a multi-disciplinary approach where a particular case could stretch over multiple sessions. In other programs, providers were "starved for knowledge" and a case-based approach did not meet their immediate needs. One respondent said of Box's approach to implementation: "He finds the group connection and educational opportunity more important than a strict adherence to implementation." The Behavioral Health ECHO primarily relied on didactic learning and cases were not a focus of every session. Pregnancy Care ECHO sessions included didactic teaching and cases were presented weekly by current OB/GYN residents, as well as community providers.

The Behavioral Health ECHO program tried using the traditional Hep C ECHO Model approach to sessions but found it "just wasn't working" so they started looking at a different format. They adapted the format to be modular based, where a single topic might be discussed over multiple sessions. Modules were planned in advance and, taken as a collective, formed a curriculum. Modules were described as a "continuum of education." The Behavioral Health ECHO was "largely learning modules with a smattering of case-based learning." When cases were used, they aligned with the module topic. The team looked for ways to increase case presentations from participants but were not concerned if or when there was a lack of cases.

The Pregnancy Care ECHO piloted a module approach in 2018-2019. Each module was three sessions, with the intent to provide more continuity and in-depth learning in a particular topic. A pre-planned curriculum required asking experts to accommodate the program's schedule and that was a challenge. Given the scheduling challenge, Pregnancy Care ECHO was looking to adapt their format again.

## Factors Influencing Implementation

Studies of program implementation identify outer and internal contexts that can shape how a program was implemented. Factors in the outer context that can influence program implementation include external leaders or champions, state and federal policies, external funding, and external partnerships or collaborations. The inner context refers to characteristics within an organization such as internal structures and processes, leadership within the organization, 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 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 that influenced how the University of Utah Health ECHO hub, Pregnancy Care ECHO program, and Behavioral Health ECHO program were implemented.

### *Leadership*

Senior leadership at the University of Utah Health supported ECHO in its initial adoption, including funding for the program and giving autonomy to Box so he could "grow and develop, and to find out what worked and what didn't." Box immersed himself in the elements of the ECHO Model and "learned

a lot in those early days about listening to people in our area, our potential participants, and giving them what they ask for rather than what we sit back at the University and conjure up as a great program."

Box has championed ECHO for more than a decade. He has mentored facilitators, experts, and staff. He has modeled the ECHO principle of "all teach, all learn" by inviting others to observe and then participate in ECHOs. His mentoring helped the University of Utah ECHO identify and cultivate mentors and facilitators who understood and believed in what the ECHO Model was and ensured that they were there for the "right reasons."

*Funding*

University of Utah Health provided financial support for ECHO from the beginning. Funds initially came from the School of Medicine. Currently, funding for ECHO came from within the Office of Network Development and Telehealth, which, in turn, was funded by the University of Utah Hospital and Clinics, a component of University of Utah Health. The University of Utah Medical Group contributed funds to presenters' departments proportional to the time that they invested in ECHO to offset their loss of clinical productivity. Every April, during the annual budget season, the Utah Health ECHO team presented to senior department leadership to promote the successes of the prior year and to ensure funding was maintained through the Office of Network Development and Telehealth.

*Training*

Many ECHO staff attended immersion training, though the time commitments and budgetary constraints limited opportunities and not all staff had attended immersion training. Those attending immersion training found it helpful for understanding what was and what wasn't working. The impact was deeper than that, however, as one respondent commented, "ECHO immersion is more important than perhaps people give it credit. When you go to immersion and get fully immersed in everything ECHO, it gives you a different drive."

There was also training on-site for ECHO staff and facilitators including a mentoring model where staff and facilitators observed ECHO sessions, discussed what they saw, had a practice session, and received coaching. Box also encouraged staff to participate in the many learning collaboratives offered by the ECHO Institute. The policy collaborative influenced the hub on legislative initiatives. The impact collaborative assisted in guiding innovative ideas for data collection. Several ECHO leads presented at MetaECHO where they have connected "with hubs around the world and hear new perspectives on specific areas of interest." One physician relied on her past training in counseling to help her with ECHO, commenting that ECHO was "group therapy with a message."

*Fidelity and Quality Control*

The Utah Health ECHO team was committed to fidelity of the principles of ECHO. This sometimes required adapting the program to fit the needs of participants, such as not requiring cases for the Behavioral Health ECHO. Close mentoring by Box reinforced fidelity and quality. ECHO programs also made use of polling and surveys from participants to inform decisions about curriculum, assess efficacy and learning, and determine how practice was improving.

## ECHO Vision and Sustainability

We asked respondents about their vision for the future and what it will take to achieve it.

*Sustainability*

When asked about the vision for the hub in the next several years, sustainability was a central theme. One path to sustainability was to integrate ECHO into the organization. Box described it this way: "Telementoring should be embedded in every department within the School of Medicine and the Project ECHO hub shouldn't exist. You don't need a specially designated entity if you are committed to education, and that's not only educating your undergraduates and postgraduate trainees. If you're committed to educating your colleagues in your region, then you should be committed to utilizing technology to deliver that education. And that should be part of what's expected of the faculty. That's my vision of Project ECHO; that one of these days we have ECHO everywhere it needs to be and the hub is gone." His goal over the next few years was to shift to a utility model and embed ECHO into the service line instead of functioning as a large hub. That would allow for funding to be spread across the system. This goal required continuing their current work and encouraging further adoption across the institution.

Integrating ECHO into the organization would require reestablishing ECHO Model buy-in from senior leadership across the system. Leadership and staff across the health system changed over the years and respondents talked about the need to reintroduce the ECHO Model and emphasizing its value to new leadership. Respondents were also seeking to increase awareness of ECHO within the University of Utah Health system "even after 10 years so that a division chief or your department chair is endorsing it."

Leaders with University of Utah Health ECHO wanted to go to the state legislature and request a sustainable line of funding. Should such funding come through, ECHO would still want support from hospitals, clinics, and medical groups "because everybody has something to gain." ECHO contributed to health care delivery in the State of Utah and what the state and system receive "in service, in quality, and in outcome; and the cost, quite frankly, is minuscule compared to other types of education and healthcare delivery."

*Showing Impact*

Organizational integration and state support required evidence of impact, and showing this impact was a challenge for University of Utah Health ECHO. They discussed the need to organize the data they had and gather more relevant data that could show the value of ECHO. The barrier was "a lack of funding to do the analysis, and to measure outcomes and the impact ECHO is having. That is a goal that everyone has but there is a lack of funding." The team wanted to invest in a data scientist who could find the data, identify missing data, and create dashboards that illustrate value. This, they said, would help them to deliver a message to the state about "why we exist, why we matter, and how we're making an impact for citizens across the state and region." Respondents also noted that this challenge was not unique to U of U Health ECHO but was a problem across ECHO hubs who were struggling with how to "track this value when you can't access a majority of the data that you would need to show value."

*Increasing Cases*

Increasing case presentations was a goal of both the Pregnancy Care ECHO and the Behavioral Heath ECHO. Leaders acknowledged that case recruitment and management can feel overwhelming but cases

"allow participants to feel like they were getting practical and direct advice on improving their patient care." One strategy to encourage more case presentations was to have the medical lead show how they break down their own complex cases so participants feel more comfortable presenting their own cases and issues.

*Participants*

Pregnancy Care ECHO leaders wanted to increase its number of participants. The program had maintained steady growth, but Sullivan wanted to see more participants from across the country. To achieve these goals, the program needed to increase its marketing and outreach efforts. Behavioral Health ECHO wanted to provide new and relevant module topics to improve the skills and knowledge of participating providers. Behavioral Health ECHO was a well-attended program and the goal was to continue to build on that success through partnering with varied presenters who could engage participants on complicated but necessary learning opportunities.

## Respondents

Terry Box, MD
The University of Utah Health

Christina Choate
The University of Utah Health

Sarah Day, MPA
The University of Utah Health

Paula Gibbs, MD
The University of Utah Health

Linda Sossenheimer, BSN, RN, RD, M. Ed. Psych
The University of Utah Health

Amy Sullivan, MD
The University of Utah Health

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