ECHO-Care Transitions at
Beth Israel Deaconess Medical Center
ECHO Implementation Profile

"The biggest challenge in all this is when you're doing something that you know works and you know is good for patients, but it's hard to prove its worth within the current funding system."

Beth Israel Deaconess Medical Center and Project ECHO-Care Transitions 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.

Lauren Junge-Maughan of the ECHO-Care Transitions team joined the study team as an implementation fellow in 2020, along with nine other fellows. This profile is based on a group interview conducted by James W. Dearing, PhD, professor at Michigan State University, in October 2020.

We begin this profile by sharing unique implementation insights from Beth Israel Deaconess Medical Center (BIDMC) and Project ECHO-Care Transitions (ECHO-CT)

ECHO Implementation Insights

The ECHO-CT Program Stretches the ECHO Model

The ECHO-CT program significantly modified the ECHO Model to fit the program's topic, goals, and audience. The goal of the ECHO-CT program was to improve the transitions of care from hospital to skilled nursing facility (SNF). This goal had to be pursued while also considering the time burden on SNF staff. The general lack of time of SNF staff to participate in ECHO sessions drove the modification of ECHO procedures so that SNF staff had to sign on to a call for only 10-15 minutes and could skip the weekly call all together if they did not have patients to discuss. This limitation also meant that the didactic part of the sessions was effectively eliminated and replaced with quarterly educational webinars. These webinars involved having all SNFs join a call to discuss a certain educational topic. Topics included medication management, frailty, and the management of patients with COVID-19. As one respondent framed it: "I think our definition of how we do education is different from how a lot of ECHO programs do it. Our education component feels more on the side, whereas some of the other ECHO programs that I've seen, it's a very pre-specified concrete education." The positive aspects of these changes were that the ECHO-CT program looked at patient outcomes and focused on process improvement. A negative result of these modifications was that there was minimal cross-learning among SNF staff from direct interaction and listening to the experiences of other SNF staff.

Checks and Balances Facilitate Consistency

The ECHO-CT program was successfully implemented at BIDMC for several reasons. First, program leadership was explicit in setting roles and expectations early during the implementation process. This was done by having a half-day orientation where SNF and hospital staff learn about the program and how it would work. Second, although the program had a large group of facilitators, standard operating procedures and facilitator evaluation criteria ensured that staff performed their roles similarly across institutions. This consistency meant minimal differences in program structure between the academic

hospital and the community hospital. Checks and balances were extremely important in ensuring implementation success.

Evidence of Program Effectiveness is Not Always Sufficient

This ECHO team produced research results documenting both improved patient outcomes and decreased cost per patient from Care Transitions studies. The team also made it a point to make note of errors in care transitions and report those errors back to the host hospitals so that quality could be improved. Additionally, surveys of ECHO-CT participating spokes at skilled nursing facilities showed high levels of satisfaction with the ECHO program. Yet even taken together, the benefits of the program were not enough to ensure sustained funding from the hospitals. ECHO programs should establish diverse funding streams to enable long-term continuity and growth.

ECHO Model Adoption

Lewis Lipsitz, MD, chief of geriatrics, Melissa Mattison, MD, a physician in the Department of Hospital Medicine, and Stephen Gordon, MD, chief of medicine at BIDMC, were instrumental in bringing the ECHO Model to BIDMC. BIDMC is an academic medical center in Boston, Massachusetts. Lipsitz, Mattison, and Gordon first learned about ECHO when they were introduced by a colleague to Sanjeev Arora, MD, founder of Project ECHO, of the ECHO Institute at the University of New Mexico. After learning how Arora had used ECHO to serve remote and underserved populations struggling with Hepatitis C, they believed that the model could be helpful for providers in nursing homes since many nursing homes were in remote areas with underserved residents. To that end, in 2012 BIDMC started an ECHO program concerned with dementia care within Skilled Nursing Facilities (SNFs) which were transitional post-hospital care homes for individuals who had the potential to function independently after a period of time. SNFs included services such as administration of prescribed medication, tube feedings, and wound care. SNFs were sometimes part of hospitals and nursing homes. The early BIDMC program, called ECHO-AGE was funded by the Patrick and Catherine Weldon Donaghue Medical Research Foundation and the Rx Foundation. ECHO-AGE ended in 2013 when funding ended.

The ECHO-Care Transitions (ECHO-CT) program began at BIDMC in 2013. This was the nation's first ECHO that focused on improving the transition from hospital to SNFs. ECHO-CT consisted of brief weekly discussion with providers from both the hospital and from SNFs. The SNFs involved in the project were located throughout the Greater Boston area. The program was directed by Lipsitz. ECHO-CT was initially funded through the Reynolds Foundation, which provided the program with a geriatric education grant. This phase of grant funding focused on care transitions between hospital and SNFs and on training and educating trainees and hospitalists on the issues surrounding transitions of care. This emphasis involved a series of educational sessions and opportunities for trainees to lead the ECHO-CT sessions. The grant from the Reynolds Foundation supported the study of clinical outcomes from the program. A study published in the *American Journal of Medicine* found that patients enrolled in ECHO-CT experienced a decreased risk of readmission, decreased SNF length of stay, and reduced 30-day healthcare costs.

After the Reynolds Foundation funding ended, the program was briefly supported by the BIDMC Department of Medicine, while program leadership awaited word on numerous grant applications. Finally, in 2018, ECHO-Care Transitions was awarded a three-year grant from the U.S. Agency for Healthcare Research and Quality (AHRQ). This federal grant allowed the program to expand beyond the academic hospital (where it had been based) to a community hospital, take on 17 new SNFs (for a total

of 18 skilled nursing facilities), and recruit 800 patients to further examine the program's impact on SNF length of stay, readmission rates, cost per patient, and adverse events.

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 to monitor and improve ECHO programs. We asked respondents to tell us what "all teach, all learn" meant to them. Respondents tended to define it as leveling the playing field among specialist providers at BIDMC and collaborating SNFs and ensuring that there was bi-directional learning occurring by hospitalists and SNF staff. Respondents pointed to the fact that after the patient leaves the hospital, SNF staff have the most insight into the patient's current condition and therefore SNFs often informed the hospital team of their processes when dealing with patient clinical changes and what works best during the hospital-to-SNF transition.

The ECHO-CT program took place once per week as 90-minute sessions. The program was held via the Google Meet video-conferencing platform. Each SNF was assigned a 10- to 15-minute time slot to discuss patients admitted from the acute care hospital during the past week. Teams from different SNFs did not meet through ECHO-CT; rather, each SNF team meets for a brief time slot with the hospitalist expert team. The ECHO-CT hospital team consisted of a hospitalist facilitator who led the session, a case manager, a program manager, and a pharmacist. The SNF determined the most appropriate staff team to discuss each case; this usually consisted of a nurse manager, rehabilitation staff, case manager, and occasionally physicians and nurse practitioners. Typically, there were one to three SNF staff members on a team call.

Two days before the session, a report was run by the ECHO-CT program manager that listed all patients who were discharged from the hospital to participating SNFs. Information for these patients was then emailed to the SNFs to determine if the patient was currently at the facility and thus eligible for discussion. Eligibility criteria for ECHO-CT were broad: The patient must have been discharged from BIDMC in the past week, not a long-term care patient at the SNF, and had not passed away or been readmitted. The patient could have been discharged from any service in the hospital, including the emergency room. Once the patient list for that week was determined, SNF staff faxed the patient's medication lists to the ECHO-CT program manager. The pharmacist reviewed the home, hospital, and SNF medication lists looking for discrepancies. The hospitalist and case manager reviewed each patient's hospital admission and prepared a list of discussion items for the session. There was no traditional didactic during the sessions, and no PowerPoint slides. Typically, 10-15 patients were discussed per session in a "scripted case-based format." If a particular SNF did not have any patients who were discharged from BIDMC, they did not need to join the session that week.

To begin the session, the hospitalist facilitator opened with a brief one- to two-sentence synopsis of the patient's hospital stay. The facilitator then asked, "How is the patient doing at your facility?" The SNF staff gave an update on the patient's current condition and discussed any concerns or questions. The pharmacist then discussed any medication issues that had discovered during the medication reconciliation. The case manager mentioned any discharge-to-home concerns or services that the patient may need when they transition to home care. The hospitalist facilitator ended the session by asking: "Is there anything we can do to improve the care transition?" This question uncovered issues called "care transition events." A *care transition event* was a clinical or operational issue that was identified through the ECHO-CT conferences. This included confusing discharge summaries, incorrect

medication instructions. or missing information. This information was communicated back to the hospital departments to improve the discharge process at BIDMC. Care transition events were also cataloged and categorized by the ECHO-CT team to better understand what issues occurred during care transitions. "We are catching errors or issues that came up during a transition," said Junge-Maughan. "All of those are cataloged and put into a spreadsheet. We analyze them to figure out what types of meds are most likely to cause issues with transitions or the biggest transition issue that's happening. If they're big enough errors, they are fed back to the department that the patient came from to try to improve that process."

Discussion times varied based on each patient; typically, a conversation lasted two to five minutes per patient. After each discussion during the 90-minute session, any necessary follow up was completed, such as an email to the hospital's discharging providers regarding questions that arose. The hospitalist facilitator completed documentation within the patient's chart and care transition events were documented. The program did not report information to iECHO.

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. Here we identify factors that emerged during interviews and appear to have the most impact on how BIDMC implemented ECHO-Care Transitions.

External Funding

The hub and program personnel both identified external funding as vital to the implementation of ECHO-CT as the program was federally funded as a research study. A program interviewee mentioned that with grant funding ending in August 2021, the program's future was uncertain. The hub interviewee mentioned external funding uncertainty as well: "I think if you asked me that question three years prior, I might've had a little bit of a different response than I do now. Three years ago, my goal would've been to have this program taken up by the hospital system and become standard practice for anyone discharged from the hospital to a SNF. At that time, I hadn't gone through many rounds of trying to get funding and coming to a better understanding of what the funding mechanisms are, unfortunately. Now I don't really see a sustainable funding mechanism, which is sad to me, but it is the reality."

Organizational Characteristics

ECHO-CT was housed within the Division of Geriatrics in the Department of Medicine because the principal investigator of the AHRQ grant was the division chief. Since the program was run out of this division and it was completely grant-funded, the principal investigator did not gather input from department leadership when it came to the implementation of the program. "An advantage is we get to do the program without strings attached. In other words, we don't really have stakeholders that we need to report to like we might if we fell under the Department of Medicine. We got to identify our own goals and aims and study what we thought was most important rather than what was most important to

the hospital or the division, which I think can be hard sometimes because those goals might not always be aligned [with those of a project such as ECHO]."

Not being hard money–funded also had downsides. Said the hub interviewee: "The challenge is, of course, the funding ends at some point and grant funding is not a sustainable mechanism. Ideally, we would like to be within somebody's cost center and have clear support going forward. The biggest challenge in all this is when you're doing something that you know works and you know is good for patients, but it's hard to prove its worth within the current funding system."

Quality & Fidelity Monitoring

Maintenance of quality and fidelity was stressed, particularly since this was a federally funded study. For example, all the relevant hospital and SNF staff had to attend an orientation. The orientation covered the study purpose, expectations, and work processes to ensure implementation. "We did a mock session with a fake patient. We assigned everyone a role, and then we had them discuss the patient, as if it was a real session. We tried to help people wrap their heads around what was going to be talked about, what was going to be expected of everybody. And it helps set the stage for the sessions." Hospitalist facilitators completed quarterly evaluations to ensure quality standards. Said one respondent, "We have a process they have to go through every session to keep everything the same. I evaluate them on that process. I evaluate the facilitators, just to make sure that everyone's doing the same thing, because we have five different facilitators. We want to make sure that everybody's still doing the same process."

Cultural Sensitivity

BIDMC and the partner community hospital were located in a major metropolitan area and the 18 participating SNFs were scattered throughout Boston, and English was a second—or third language—of a number of patients who passed through skilled nursing facility care. Some of the SNFs catered to particular languages to make communication between patients and staff easier and more understandable. Said one respondent: "We have a lot of Russian-speaking patients that we see and there is a Russian-speaking facility that these patients will be sent to. And that's already built into the case manager's work. They determine which SNF patients should go to. By the time that we talk about them with SNF staff, a lot of those cultural things have been figured out, as the patient goes to a site where their language is spoken. Similarly, we have one SNF where they speak German. We have a Spanish-speaking site. Case managers do a remarkable job of making sure that these patients are going to sites where at least one staff member or a couple staff members speak the language they prefer."

ECHO Vision and Sustainability

When asked about the vision for the hub in the next several years, respondents noted that while they were not sure about the future of the project at BIDMC, they were hopeful that they could disseminate the program to other hospitals where leadership may be interested in creating care transitions programs. Respondents discussed the aspiration of using ECHO data to better understand care transition issues. The hub respondent said, "Although I would like to see it continue indefinitely, I think more realistically, my goal now is to be able to use our project to advocate for more widespread use, and uptake, and implementation and hopefully the outcomes that we get if we can do good research [will justify continuation]. There just isn't a large amount of research about ECHO programs in this area. We want to identify areas for further work, especially as it applies to thinking about ways that we can

minimize errors in the transition period and really bring to light some of those problems so that we can prevent patient harm going forward."

Leadership at Beth Israel Deaconess Medical Center was aware of Project ECHO-Care Transitions and supportive of the study, but despite results documenting improved care and cost savings, BIDMC was not willing to fund continuance of the program. "One of the issues with our project is when you talk about cost savings," said Junge-Maughan. "In a previous paper we showed that we save about $2,600 per patient. The problem is that the hospital really isn't saving that. It's the insurance company that realizes that cost savings. So, the hospital is very supportive of the project, but the project isn't really benefiting them from a cost perspective."

Respondents

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