

The Hospital for Sick Children - Paediatric ECHO Implementation Profile

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The Hospital for Sick Children (commonly known as SickKids) and its Paediatric Project ECHO and two its program - the Paediatric Palliative Care and Obesity Management ECHOs, 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.

Annie Jiwan, program manager at Paediatric Project ECHO at the Hospital for Sick Children, was a 2021 implementation fellow and joined 14 other fellows alongside Diffusion Associates to conduct research for this study. This profile is based on interviews conducted July-September 2021 by Nagesh Rao, PhD, professor at Ohio University, and Aires Morrison, an ECHO project coordinator at Children’s Healthcare of Atlanta and a 2021 implementation fellow.

We begin this profile by sharing unique implementation insights from SickKids Paediatric Project ECHO.

ECHO Implementation Insights

Strong Foundation

SickKids benefited from having a visionary leader who championed starting and implementing several ECHOs. SickKids also made an early decision to hire and train staff to implement high-quality ECHO programs. Every hub and program team member attended immersion training in New Mexico, which allowed them to see how an ECHO should function, and how it offered benefits over other virtual learning methods. This strong foundation and investment in staff ensured well-run ECHO programs and a shared commitment to democratizing knowledge.

Organizational Support

The ECHO program team at SickKids worked closely with other teams in the organization, including clinical teams, research teams, and education teams. By working together, each team member could focus on their respective task and not worry about managing multiple tasks. SickKids’ ECHO teams were highly collaborative and best practices from one program, if transferable, were applied to other programs.

Investment

The success of ECHO in SickKids was due in part to the considerable financial support from the Ontario Ministry of Health and administrative support provided by the SickKids Hospital. The partnership between SickKids and the ministry enabled leaders to identify and target key health issues in their communities and address them through specific ECHO programs. For example, this partnership was leveraged to quickly offer Covid-related ECHO programs during the pandemic.

ECHO Model Adoption

The Hospital for Sick Children (SickKids)

Project ECHO was brought to SickKids in 2017 by Jennifer Stinson, PhD, a clinician-scientist who was introduced to the ECHO Model through an Adult Chronic Pain and Opioid Stewardship ECHO at the University Health Network (UHN) in Toronto, Canada. Paediatric pain specialists at SickKids were invited to speak at the adult pain program. Stinson, seeing a need for a similar education model for the paediatric population, proposed a paediatric-focused ECHO at SickKids. Initially, Paediatric Project ECHO resided within the Research Institute of the hospital as a demonstration project and then transitioned to the Learning Institute when it became an established program. Kelly Warmington, manager of the Learning Institute at SickKids, noted, “It was really her [Stinson] thinking over the past two years that led to moving Project ECHO from the Research Institute to the Learning Institute. For those first two years, it was really a demonstration project, right? It was research. We were trying to figure out if it worked, and it did.”

As a hub, SickKids had access to resources including the Learning Institute (education arm), Research Institute (research arm), and clinical expertise. Several team members participated in knowledge translation training and research findings inform all the ECHO programs. Annie Jiwan, program manager at Paediatric ECHO, explained, “A lot of our team have taken knowledge translation training. So, at the Hospital for Sick Children, we run a variety of different knowledge translation offerings for different levels of folks from novice to expert. The team has benefited from those opportunities. I think it has been really fantastic because this training is universal in terms of content.”

The hub was initially funded and continued to receive ongoing funding through annual grants from the Ontario Ministry of Health. The ministry annually provided just over \$1 million Canadian dollars to support the four Paediatric Project ECHO programs. As the primary funder, they had significant input in the programs offered. Warmington stressed, “Anytime we want to make a change to the program, anytime we want to build something different, or shift those allocations, we have to ask. They haven’t nudged us in recent years, but definitely at the beginning, they had significant influence on which specialties that were going to be ECHOs.”

Many of the staff involved in Paediatric Project ECHO were paid out of the hospital’s operating budget; and MOH funding allowed for a percentage of their time to be dedicated toward the program. If the contract requirements were met, the funding was guaranteed on an ongoing basis. It was possible, however, that funding could change or disappear in the future, based on the political landscape.

Palliative Care ECHO Program

This program was started by Stinson, whose research focused on information and communication technologies to improve paediatric health conditions. Stinson became aware of Project ECHO through an adult focused ECHO pain program. During conversations with the Pain Service team at SickKids, Stinson recommended starting pain related ECHOs for children. Stinson and Adam Rapoport, MD, initiated a Palliative Care ECHO. As funding was from the Ministry of Health, the program was offered provincially in collaboration with the Children’s Hospital of Eastern Ontario. The program was led by Rapoport, medical director, Paediatric Advanced Care Team (PACT), at SickKids Hospital, and Chris Vadeboncoeur, MD, medical director of Palliative Care at the Children’s Hospital of Eastern Ontario (CHEO), with support from Senthoori Sivarajah (Sen), education coordinator within the Paediatric ECHO Program at

SickKids. All members of the Palliative Care ECHO leadership team had attended the ECHO training in New Mexico. The program participated in a larger ECHO Ontario collaborative that included representatives from all ECHO programs in the Ontario province to share ideas and best practices.

Obesity Management ECHO Program

In 2018, the ministry put out a call for Project ECHO programs focused on paediatric health concerns. A proposal for an Obesity Management ECHO submitted by SickKids was approved by the ministry. Using a prior obesity network as a steppingstone for the ECHO framework, Stinson marketed the program to a group of healthcare providers who were part of an obesity management education series. Jill Hamilton, MD, director, Centre for Healthy Kids, explained, “We had put in an application to the Ministry of Health for funding for a broader paediatric weight management network across Ontario. And they funded 11 sites at hospitals with an academic paediatric presence. It actually aligned very nicely with the ECHO as well, because it was a way to build this network, and then the idea being to have these hubs around the province, which then could expand outward into the community.”

Stinson was instrumental in bringing the Palliative Care ECHO and the Obesity Management ECHO to SickKids, and involved in recruiting the physician leads for each ECHO. The Palliative Care program collaborated with Children’s Hospital of Eastern Ontario and the physician leads at each institution took turns facilitating the sessions. The Obesity Management program was facilitated through SickKids only.

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” meant to them. They defined it as the opportunity for the facilitators and the participants to come together and learn from each other. Respondents from both ECHOs mentioned the importance of reducing the hierarchy of “hubs” and “spokes,” and did not use “specialists” or “primary care providers” language to refer to the presenters. By eliminating titles, the playing field was, they said, leveled and the conversation flowed more freely between the presenters and participants. Both teams emphasized that presenters and participants were teachers and learners. Jiwan explained, “I know some ECHOs call it the specialist hub and then some refer to it as the primary care providers . . . but we’ve even reduced that language and we just call it learners and hub team members.”

SickKids ECHO paediatric programs implemented “all teach, all learn” with a primary focus on the learners. Jiwan elaborated, “. . . just trying to follow the fidelity of the model outlined from New Mexico where the learners get to go first. They get to speak first in all the sessions. If they actually have a lot more to say than our hub teams do, we’ll sit back and we’ll let them talk. Many times, we’ve actually run out of time on our ECHO sessions.”

Respondents from the two ECHO programs shared that “all teach, all learn” extended to learning from the community. The Palliative Care ECHO team noted that there was a false impression that hub team members had all the expertise. They shared that many times the community physicians taught the hub team clinicians. Rapoport shared, “We learn a lot from our partners in the community. They are sort of ‘lone wolf’ clinicians. And they’re always showing us ways that they can do things that we cannot do with large teams, that they can do very creatively on a smaller scale . . . They’ve come up with creative

workarounds or novel ways of getting things done that would take four days to get the proper sign-off in larger institutions, and to make sure that everybody agreed with a certain approach.”

Learning from the field was also mentioned by the Obesity Management ECHO team when describing how they get feedback and inputs from community participants. Hamilton explained, “We have had several cases where discussions have centered around trying to support a child who may not be living in ideal circumstances, either from a socioeconomic standpoint, or family crisis. And there are a lot of great suggestions and examples from community participants about things they've done in that scenario, which I think has helped everybody think more broadly about the external supports that might be available for these types of cases, where you feel like you're at a bit of a loss regarding how to support them.”

The Palliative Care ECHO and the Obesity Management ECHO reinforced “all teach, all learn” by focusing on the four principles of the ECHO model. For example, each conducted needs assessments to identify specific educational needs of learners. Results from the assessments were used to build the curriculum, choose topics, and invite speakers, thus creating a collaborative environment between the presenters and the participants. The teams relied on research surveys for programmatic feedback from participants to continuously improve programs. Additionally, because both paediatric programs were on sensitive topics, the ECHO team addressed cultural issues impacting the communities they serve. Finally, both programs created and shared a resource database with participants to ensure that the participants had the tools to work effectively in their communities.

The ECHO programs had other unique ways of reinforcing “all teach, all learn.” When the Obesity Management ECHO had difficulty getting cases from participants, the presenters opened the floor to general discussion, allowing the participants to lead and guide the conversation. The Palliative Care ECHO team found that while the presenters liked to discuss complex cases, they were mindful that the complexity might be a turn-off for a primary care provider in a remote area. The team encouraged the hub team presenters to present simpler cases relevant to providers in remote areas. The ECHO teams often shared the workload by co-hosting the sessions with other SickKids ECHO programs and benefited from having different audiences. Vadeboncoeur noted, “We have had in the last two or three years, concurrent sessions with other paediatric ECHO groups like pain and complex care. One of us does the didactic, and one of us does the case presentation, so that shares the burden of the case presentation finding, but it also gives us a different audience, and sometimes when that audience is invited to send in cases to different ECHOs, that's very helpful.”

Factors Influencing Implementation

Studies of program implementation identify context factors that can shape how a program was implemented. Such factors include leaders or champions, state and federal policies, funding, partnerships or collaborations, staffing, internal structures and processes, and monitoring for quality and fidelity. Not all of these factors play a role in how ECHO was implemented here or elsewhere, and some factors are more important than others.

Below, we identify factors that emerged during interviews that appear to influence the implementation of SickKids’ Palliative Care and Obesity Management ECHOs.

Funding

The only source of funding for SickKids' Paediatric Palliative Care and Obesity Management ECHO programs was from the Ontario Ministry of Health. The ministry had considerable influence on the choice of topics and the content of different ECHO programs. As long as the ECHO programs met ministry requirements, funding was continued. However, while the ministry funding was significant, the increased expenses related to the growth of the program (e.g., adding in team members, cost of living increases) was not funded by the ministry. SickKids had continually explored revenue generation opportunities to bridge these gap expenses.

Staffing

SickKids had a robust team working on their Project ECHO programs. They were supported by an operations team that engaged the Learning Institute leadership, program manager, education coordinator, communications advisor, digital asset specialist, and two interprofessional education specialists. They were also supported by a research team that included a research lead and research coordinator. Access to these team members promoted high-quality programs with clear guidelines to address challenges participants faced in their communities. This diverse team allowed the operational and research staff to focus on the logistics and evaluation of the ECHO programs, so the clinical experts could focus on facilitation and session content.

ECHO Vision and Sustainability

When asked about the vision for this SickKids ECHO hub in the next several years, interviewees said that there was momentum to add or to improve existing ECHO programs. Some of the upcoming SickKids' Paediatric ECHO initiatives would include implementing E-learning modules, building a stronger research team, and integrating diversity, equity, and inclusion in all their programs. These and existing initiatives must be prioritized to align with SickKids' new five-year strategic plan. SickKids also faced challenges with Ontario Ministry of Health funding not matching increased expenses in running ECHO programs. This led the ECHO hub team to find creative means to generate revenue, like offering consulting services to external ECHO programs. SickKids was exploring offering ECHO programs to diverse participants, including Indigenous populations in Northern Ontario.

The Palliative Care ECHO team was planning to continue. A means to continuation was to partner with more palliative programs within in the province and to build partnerships among palliative programs across provinces to share resources and expertise in offering ECHO programs. Rapoport noted, "There are other strong palliative care programs in our conference that should be leading these and should be considered part of the hub. We've been lucky enough to start moving in that direction. Another major center in Hamilton here in Ontario has participated as a hub previously and continues to do so, and that's been a huge success." Additionally, the Palliative Care ECHO was rolling out basic palliative care education modules to their participants and repurposing those sessions for more advanced education. A challenge that the program faced was the continued difficulties in sourcing cases from the participants. The ideal situation would be to have a repository of cases to reflect the quality of the program and the impact it could have.

The Obesity Management ECHO team planned to continue and wanted to be run more by participants, with speakers coming to the hub team with topic ideas and cases. To accomplish that, the team said they needed to broaden their audience. A consistent challenge was engaging the "right" target audience of family physicians to ensure they were getting the education needed to properly support their

communities. The team also faced the challenge of keeping all participants engaged during the discussions when the material discussed did not pertain to them.

The Palliative Care ECHO and the Obesity Management ECHO shared a common interest in continuing their programs. Both recognized the need to grow their participant base and recruit participants of diverse backgrounds. Further, procuring cases was challenging for both teams and would be a future focus for them.

Respondents

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The Hospital for Sick Children

Kate Hamilton
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The Hospital for Sick Children

Annie Jiwan
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Suggested Citation

Morrison, A., Jiwan, A. & Rao, N. (2022). *The Hospital for Sick Children Paediatric ECHO Implementation Profile*. Diffusion Associates. <http://www.diffusionassociates.com/echo>.

