



Applying ECHO to Rural Dermatology Through the Use of Digital Primary Care Training

LaKitha Hughes¹, Deangela M. Ivory¹, Hannah C. Badon², Chelsea S. Mockbee², Josh T. Clark², Stephen E. Helms², Robert T. Brodell², Saurabh Chandra¹, & Vinayak K. Nahar²

University of Mississippi Medical Center Telehealth Center for Excellence¹
Department of Dermatology, University of Mississippi Medical Center ²



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INTRODUCTION

The Extension for Community Healthcare Outcomes (ECHO) strategy was initially developed by Sanjeev Arora, MD, to address the issue of rural primary care physician training. [1] Patients in rural New Mexico were passing away from hepatitis C because their doctors were ignorant of recent, highly effective treatments. A follow-up study found that the treatment gap between patients treated at the University of New Mexico Hepatitis C Clinic and primary care doctors in ECHO locations had been closed. [2] Since then, Project ECHO, which started in the state of Missouri, has been adjusted for the practice of dermatology.

PROGRAM DESCRIPTION

Primary care practitioners that take part in Project ECHO for Dermatology at the University of Mississippi Medical Center (UMMC) use video-based technology to show recent cases from their own clinics. A lead Project ECHO faculty dermatologist and additional volunteer faculty members are shown cases. Primary care doctors provide photo-based patient case discussions after a dermatology faculty member gives a five minute "chalk-talk" about a dermatologic disorder. There is discussion of the various diagnosis and recommendations. Rapid-access appointments could be used in management when a physical consultation or operation is urgently needed. Project ECHO is presented once a month at UMMC. With the exception of 8 hours of administrative support each month, the program is free because teaching is done by volunteer faculty at midday.

Faculty from UMMC Dermatology first approached rural primary care physician groups to find participants. However, the program gained popularity as UMMC encouraged medical students to use Project ECHO to find participants during their obligatory month-long rural primary care rotation (see Table 1).

Table 1: Primary Care Physician Participants in UMMC Project ECHO: Dermatology

Year	Primary Care Physician Participants/year
2020	86
2021	66
2022	153 in 1 st 6 months, (306 when annualized)

Table 2: Project ECHO Primary Care Physician Survey (n=29) Results (Likert 0-10 scale: 0 = not at all true; 10 = absolutely true)

Survey Question	Average score (0-10)
Use what I've learned to treat skin conditions	6.45
Perform skin exams as a routine part of my physical exam	7.07
Detect and make referrals related to skin conditions	7.00
Counsel patients on sun protection	7.61
Counsel patients on sensitive skin and moisturizers	7.55

DISCUSSION

After the presentations about Project ECHO, audience members are requested to take a voluntary survey. Results from the June and December 2021 questionnaires (n=29) showed that respondents gave the program a 6.45/10 in terms of how confident they were in using new information about treatments. Participants also gave Project ECHO a 4.26/5 rating for satisfaction. Some poll items revealed extremely high program satisfaction (see Table 2).

Generally, Mississippi's primary care doctors in underprivileged communities have quickly embraced and used the Project ECHO for Dermatology program. According to survey results, the initiative has been successful in educating non-dermatologists—many of whom treat patients with dermatological problems in their practices—about skin diseases. According to anecdotal evidence, doctors who were acquainted with UMMC Dermatology faculty through Project ECHO are referring more patients to the institution. This kind of specialist-primary care physician cooperation is an effective way to address the access-to-care gap in Rural America.

REFERENCES

1. Project Echo - moving knowledge, not people. <https://hsc.unm.edu/echo/>. Accessed August 8, 2022.
2. Arora S, Thornton K, Murata G. et al. Outcomes of treatment for hepatitis c virus infection by primary care providers. *N Engl J Med.* 2011; 364:2199-2207. <https://doi.org/10.1056/NEJMoa1009370>

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