TMF Health Quality Institute

QI Snapshot

September 2019

Project ECHO: Impacting Depression and Alcohol Use

In 2016, the Centers for Medicare & Medicaid Services (CMS) awarded a two-year Special Innovation Project to TMF Health Quality Institute in partnership with Arkansas, Oklahoma and Missouri subcontractors. The focus of the project was to improve the treatment of depression and alcohol use disorder and the integration of behavioral health into primary care through the Project Extension for Community Healthcare Outcomes (ECHO) and the Mental Health Integration (MHI) model. In partnership with Dell Medical School (DMS) at The University of Texas at Austin (UT Austin), behavioral health subject matter experts (SMEs) mentored clinicians and gave feedback on patient cases. This approach teaches primary care providers how to integrate behavioral health treatment into their practices beyond just screening patients for behavioral health needs. The project aims to help primary care providers achieve behavioral health integration by promoting essential primary practice changes. These changes include improving detection, monitoring, stratification and management of behavioral health conditions, reinforcing relations with patients and families and managing behavioral health treatment.

Project Overview

Intervention

In 2003, Project ECHO was developed by Sanjeev Arora, MD, while working in New Mexico to treat patients with the hepatitis C virus (HCV). To address the knowledge gap with treating HCV, Dr. Arora created Project ECHO to educate primary care clinicians about methods to screen for and treat HCV in rural New Mexico. After the project was proven successful through evidence, ECHO was expanded other U.S. and international academic hubs to address other diseases and disorders (Figure 1).

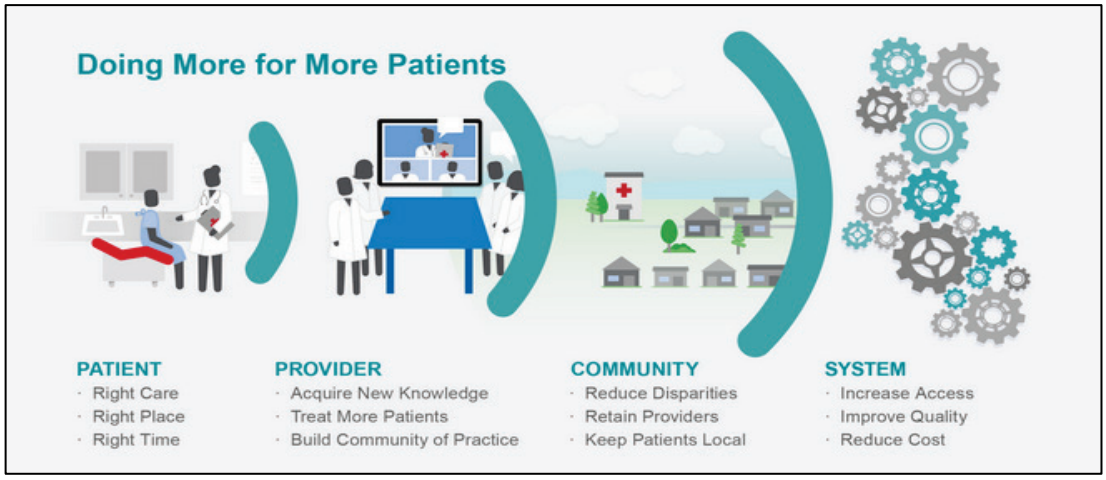

Figure 1. Project ECHO Process Impact

The ECHO model has four main principles: 1) Use technology to leverage scarce resources; 2) Share best practices to reduce disparities; 3) Use case-based learning to master complexity and 4) Use a web-based

database to monitor outcomes. TMF's Quality Improvement Network – Quality Improvement Organization (QIN-QIO) Project ECHO specific aims to impact depression and alcohol use include:

- Prevent onset of illness through management of health risk factors
- Engage in early detection
- Determine level of intervention or need for referral to specialty care
- Promote better management of chronic health conditions, including medication and non-medication options
- Manage total health care needs of patients through referral and coordination

The goal of TMF's QIN-QIO Project ECHO is to improve a series of operational areas within the primary care practices conducting behavioral health screening for depression and alcohol use disorder, such as the ability to work with difficult patients as a part of routine care. By developing primary care practitioner's expertise through increased access to specialists, the project builds local and community resources to increase capacity for treatment in the primary care practice setting and improve outcomes.

Methodology

TMF's QIN-QIO Project ECHO started in the spring of 2017, with 51 clinicians (including medical doctors (MDs), doctors of osteopathic medicine (DOs), nurse practitioners (NPs) and physician's assistants (PAs)) participating in four rolling cohorts throughout four states. The intervention took place from March 2017 to April of 2018.

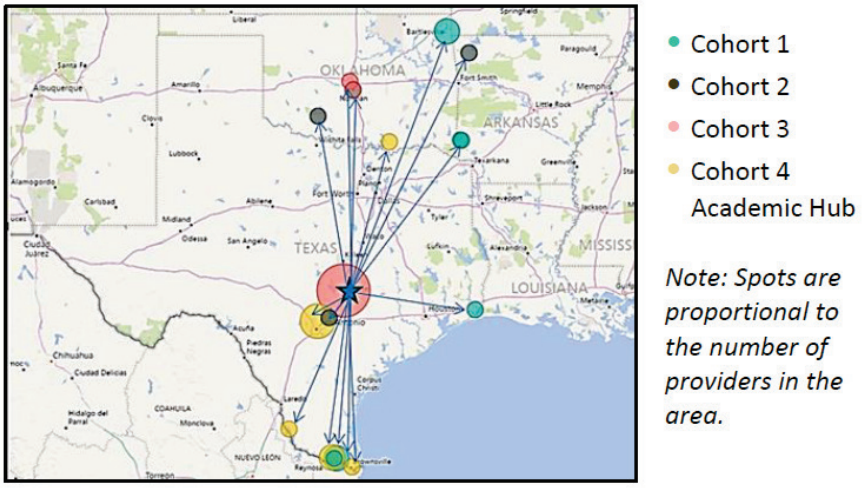

Figure 2: Project ECHO Impact Map and Geographic Reach

TMF and DMS conducted weekly, 60-minute TeleECHO (telehealth), clinics with each cohort ranging from eight to 14 clinicians. Participation was expanded to include social workers, care coordinators, nurses and students from the University of Texas Integrated Behavioral Health Scholars Program. Each cohort had the same curriculum to enhance consistent knowledge throughout the 51 primary care practices. The TeleECHO clinics were broken into 45 minutes of case-based learning and 15 minutes of didactic learning. TeleECHO clinic sessions were held once a week for 12 consecutive weeks, and used ZOOM technology to videoconference with clinics in diverse geographic areas. Participating clinicians were offered one Continuing Medical Education (CME) credit hour for each of the 12 sessions completed. Three psychiatrists and one pharmacist from Dell Medical School at UT Austin provided subject matter expertise at the weekly sessions.

Outcomes

Outcomes tracked for this intervention focused on: a) increasing the rate of patients with a positive screen for alcohol use disorder (AUD)/depression who receive treatment at the primary care office, and b) increasing provider confidence in their ability to treat patients with depression/AUD. The following explains outcomes for the first three cohorts.

Outcome 1: Increasing the number of patients with a positive screen for alcohol use disorder (AUD)
The team compared the number of patient claims that confirmed diagnosis of alcohol use disorder before and after provider participation in Project ECHO. Comparing this outcome for the same six months of the year prior to participation and the same six calendar months after participation, the number of patient claims indicating patient diagnosis of alcohol use disorder increased 151% across the three cohorts. Cohorts 1 and 3 increased 160% and 759%, respectively. Relative improvement rates for Cohort 2 decreased 22%. Over the same time period, there was a 2% increase in non-participating providers submitting claims for alcohol use disorder. Non-participating providers included all other providers billing these same claims to CMS.

The Project ECHO team believed the percentage difference in Cohort 2 was because of low recruitment for this cohort. The cohort ran throughout the summer months, which more challenging to recruit providers. Keeping summer cohort participants engaged for the entire 12-week program was also challenging. Many providers recruited for Cohort 2 chose to participate in the fall when Cohort 3 began.

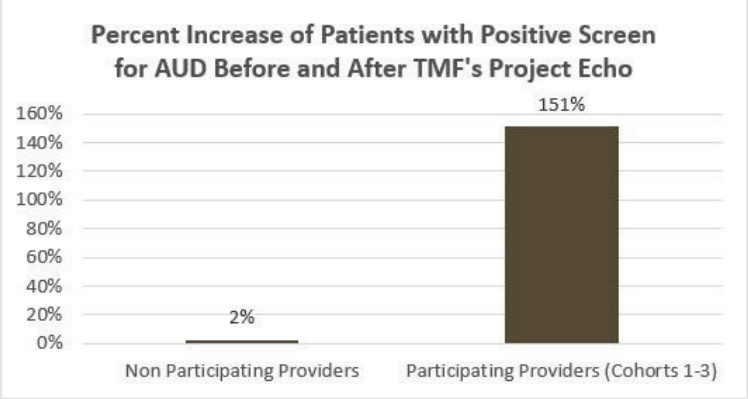

Figure 3. Percent Increase in Patients with Positive Screen for AUD (November – April) pre/post ECHO participation

Cohort	Before ECHO participation (2016-2017)	After ECHO participation (2017-2018)	% increase
1	729	1,896	160%
2	98	77	-21%
3	17	146	759%

Total	**844**	**2,119**	**151%**
Non-participating providers	362,514	371,176	2%

Table 1. Number of patient claims for AUD (November –April) pre/post ECHO participation.

The rise in monthly claims in the primary care office associated with alcohol use disorder diagnoses showed quantitative evidence that providers are confident in screening and managing alcohol use disorders. This is also consistent with the qualitative self-efficacy data feedback from participating Project ECHO providers.

Outcome 2: Increasing the rate of patients with depression who receive treatment at the primary care office.
The number of patients diagnosed with depression and who received treatment at the primary care office increased throughout all cohorts by 51%, according to claims-based data from CMS. Relative improvement rates for Cohorts 1 and 3 increased between 33% and 286%. Rates for Cohort 2 decreased 92%. Over the same time period, treatment rates for providers not participating in the TMF QIN-QIO Project ECHO SIP decreased by 14%. Non-participating providers include all other providers billing these same claims to CMS. Similar to Outcome 1, the TMF Project ECHO team believes the difference in percentage is because of low enrollment and engagement in Cohort 2.

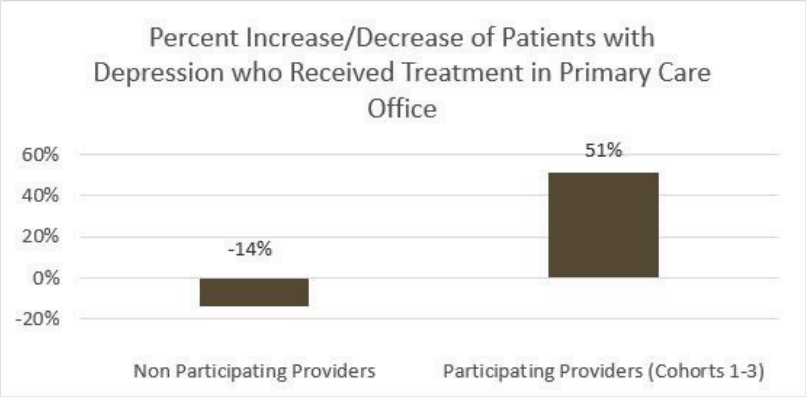

Figure 4. Percent Increase in Rate of Patients with Depression who Received Treatment in Primary Care Office pre/post TMF's Project Echo.

Cohort	Before participation (2016-2017)	After participation (2017-2018)	% increase
1	305	407	33%
2	60	5	-92%
3	59	228	286%
Total	**424**	**640**	**51%**
Non-recruited providers	1,010,213	870,598	-14%

Table 2. Number of patient claims for depression (November – April) pre/post ECHO participation.

Outcome 3: Increasing provider confidence in their ability to treat patients with AUD and depression.

Providers indicated various changes they planned to make to their professional practice after the TMF Project ECHO using a qualitative feedback tool. Thirty seven percent of providers indicated they would use more screenings or change how screenings are used. Twenty four percent indicated they would use motivational interviewing and 19% indicated they would make pharmacological changes. Pharmacological changes included plans to increase knowledge of what to prescribe, how to prescribe medications for depression/alcohol use disorder and implementing strategies to increase confidence in prescribing medications in their offices.

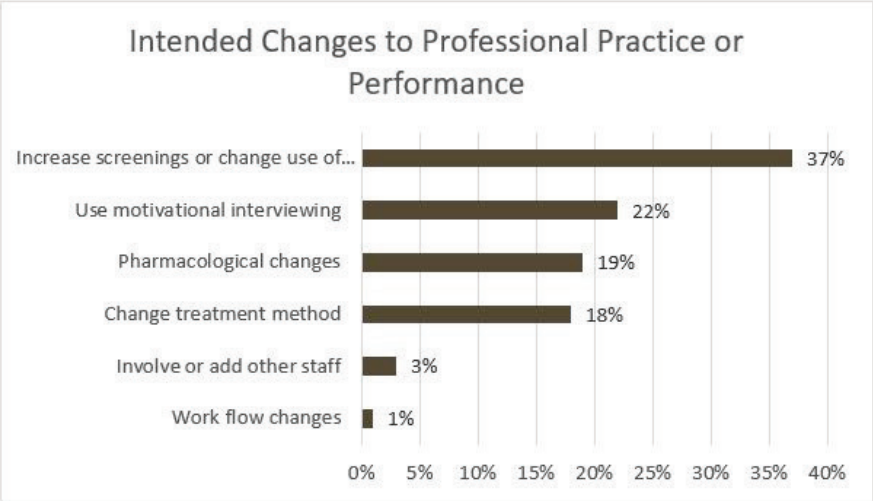

Figure 5. Changes to Professional Practice or Performance

Additionally, feedback from providers included the following comments related to making changes to professional practice/performance:

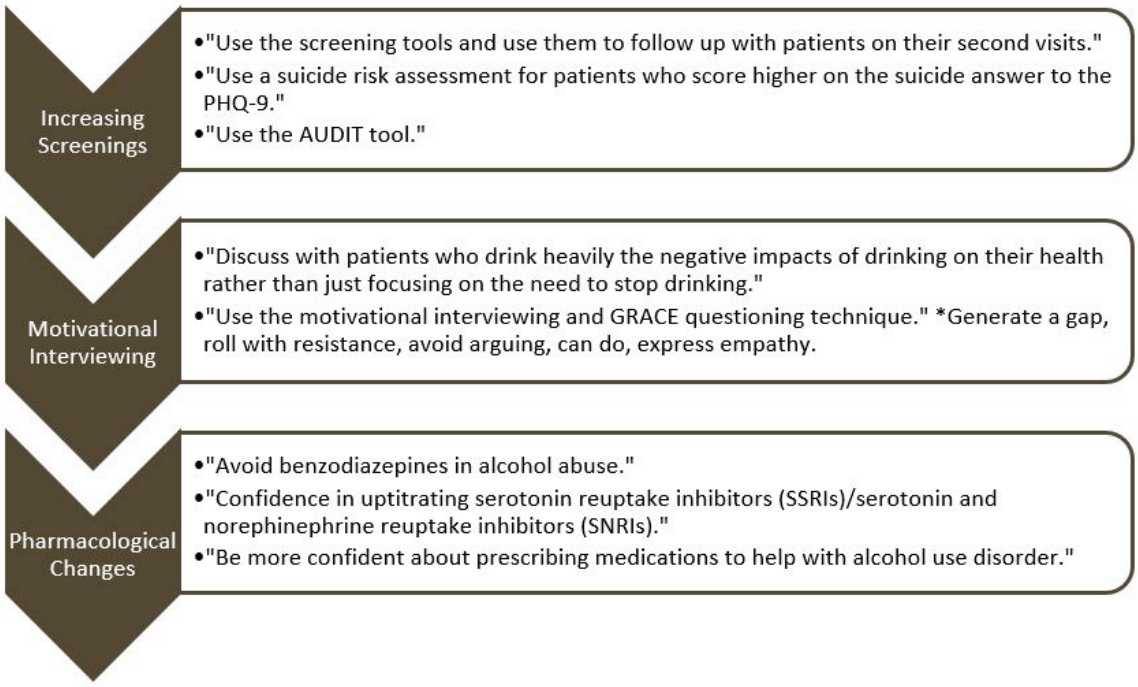

Figure 6: Comments from providers indicating changes in screening patterns, use of motivational interviewing, and pharmacological changes.

Discussion and Recommendations

With limited patient access to behavioral health care and the need to treat the whole patient, (i.e. physical and behavioral health needs) behavioral health integration into primary care has gained strong momentum. Additional research has brought the rural primary care staff needs to the forefront, and the Project ECHO initiative is especially designed to cater to rural providers. When comparing the results from the three Project ECHO cohorts to non-participating providers in the region, we see the need for Project ECHO to continue to teach providers about behavioral health integration. While reviewing the outcomes, it is integral to increase provider confidence to work with patients and potential patients diagnosed with depression and alcohol use disorder. The program also allows providers to expand their knowledge and understand what to look for and how to feel more comfortable identifying and helping patients with depression and alcohol use disorder. Behavioral health conditions are often still stigmatized in the health care delivery system, and this program has helped to bring more discussion about the topic.

If replicating this project in the future, TMF would shorten the cohorts from 12 weeks to eight weeks. The team found that focusing solely on screening tools was too basic for providers participating because they were more interested in application strategies and/or pharmacological strategies for the treatment of behavioral health conditions. Additionally, provider participants may be more easily engaged with a shorter time commitment. The TMF Project ECHO team also identified strategies to reduce provider burden by requesting all patient cases at the beginning of the cohort rather than on a weekly basis. This would also give SMEs more time to review cases and select cases more effectively that coincide with the didactics. Finally, the TMF Project ECHO team also recommended making each of the sessions as interactive as possible by using polling to test knowledge before and after each clinic. SMEs could use responses to generate conversation and guide discussion on clinical care

guidelines and strategies. This data would also allow the team to quantitatively measure knowledge gained by participants.

The TMF Project ECHO initiative empowers primary care providers to be more knowledgeable, confident and sensitive in the treatment of behavioral health disorders. With depression screening now included as a Merit-based Incentive Payment System (MIPS) measure, providers and clinical leadership are quickly shifting their attention to this measure.