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**MATHEMATICA  
Policy Research**

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Dr. Miriam Komaromy  
Associate Director of Project ECHO  
Medical Director, Integrated Addictions & Psychiatry TeleECHO Clinic  
University of New Mexico Health Sciences Center  
Albuquerque, NM 87131

Dear Dr. Komaromy:

The Project ECHO (Extension for Community Healthcare Outcomes) model of collaborative medical education and care management is an important approach to addressing disparities in health care delivery. Mathematica is excited by the potential opportunity to work with you and your colleagues on an evaluation of the ECHO Access program in New Mexico. The brief proposal included with this letter describes at a high level four potential components of an evaluation that we could conduct and provides an estimate of the likely costs for each component. Mathematica's proposed project director for this effort, Dr. Dominick Esposito, has extensive experience leading evaluations of this type in the past decade and is available to discuss the details of these potential evaluation activities.

We look forward to working with you on this important project. If you have any questions regarding our submission, please email [rfpcenter@mathematica-mpr.com](mailto:rfpcenter@mathematica-mpr.com) or, if you need to speak to someone directly, call Pamela Tapscott, Mathematica's vice president of contract operations, at (202) 484-3294. Alternatively, you can contact Dr. Esposito directly at (609) 275-2358 about this submission.

Sincerely,



To conduct a comprehensive evaluation of the Extension for Community Healthcare Outcomes (ECHO) Access Expansion Project, Mathematica Policy Research recommends conducting multiple activities to examine how the initiative affects access to treatment for mental health and substance use disorders at New Mexico community health centers (CHCs). Evaluation activities will take advantage of a diverse set of quantitative and qualitative data sources, including Medicaid claims, site visits and key informant interviews, and surveys of providers and patients. These sources will help to measure the impact of ECHO Access on (1) access to and quality of care for people with mental health and substance use disorders; (2) providers' and other CHC staff knowledge, awareness, and skills; and (3) patients' quality of life and care (Table 1). The evaluation will also identify facilitators and barriers to implementation and assess sustainability. Program status reports will include detailed information on the methods, analysis, and findings of the evaluation, including a design report, issue briefs, a summary of findings with accompanying data appendices, and a PowerPoint presentation. Next, we provide a brief description and budget estimates for potential evaluation activities.

### **Outcomes and return on investment analyses**

Outcomes and return on investment (ROI) analyses will examine whether the intervention improves quality of and access to care for people with mental health and substance use disorders, and whether the intervention provides an ROI. Using a time-series design and taking advantage of the project's plans to roll out the intervention at additional CHCs each year to identify a comparison group, we will evaluate beneficiary-level service access and use, such as patients' access to screening; receipt of a diagnostic assessment; use of treatment services at participating CHCs; and patients' use of other health care services, such as outpatient, inpatient, emergency room, and prescription medication use. We will construct a research sample of Medicaid beneficiaries using state Medicaid claims data and information provided by CHCs. To identify prior health care utilization trends, we will use data from up to three years before the project began. To examine ROI, we will collect information on program implementation costs and compare them to financial benefits of ECHO Access from the perspective of the state of New Mexico.

We could use a number of quality measures to assess the effectiveness of ECHO Access, including National Quality Forum-endorsed claims-based care process and patients' outcome measures for mental health and substance use disorders. Other potential metrics include National Committee for Quality Assurance Healthcare Effectiveness Data and Information Set behavioral health measures, such as antidepressant management, follow-up after hospitalization for mental illness, diabetes monitoring and screening for people with diabetes and schizophrenia or bipolar disorder, cardiovascular monitoring for people with cardiovascular disease and schizophrenia, adherence to antipsychotic medications for people with schizophrenia, and initiation and engagement of alcohol and other drug dependence treatment. We might also generate behavioral health measures created by the Center for Quality Assessment and Improvement in Mental Health, such as use and dosing of antidepressant and antipsychotic medications for patients with schizophrenia, and access, initiation, continuation, and follow-up of substance abuse treatment.

## **Implementation analysis**

The evaluation could include an implementation analysis that examines implementation of ECHO Access, including factors influencing sustainability. To examine the implementation, we propose to conduct (1) two site visits to observe model implementation at a subset of the CHCs; and (2) three rounds of key informant telephone interviews with clinicians, ECHO staff, and other stakeholders. We will use the first site visit to collect information on implementation barriers and facilitators and to enable staff to observe training activities by attending an integrated addictions and psychiatry teleECHO clinic. The second site visit will focus on centers that had implemented ECHO Access for at least one year, enabling us to explore factors that influence sustainability. During each round of telephone interviews, we will speak with 15 to 20 primary care providers and ECHO staff to identify implementation challenges and facilitators. In the second and third rounds, we will speak with a mix of early and late adopters.

## **Provider survey**

Our proposed provider survey will assess whether and how the project affected providers' awareness and knowledge of mental health and substance use disorders and the project's impact on providers' professional skills related to screening, diagnosis, and treatment of these disorders. To collect information from providers on their experiences with ECHO Access, we will develop a brief, web-based survey to administer to ECHO team providers (physicians, nurse practitioners or physician assistants, and community health workers) at all participating CHCs. To develop the survey, we will review ECHO materials and work with University of New Mexico project administrators to identify appropriate questions and contact information. We will administer the survey at baseline and approximately 6 to 12 months and 18 to 24 months after baseline. We plan to collect information from approximately 100 providers at each point in time.

## **Patient survey**

We could also conduct a brief patient survey among a sample of 750 to 1,000 patients at 10 CHCs. We will conduct the survey at two different times (baseline and 6 to 12 months after baseline). This activity will provide information to assess the potential effects of ECHO Access patients' perceptions of their quality of life and the quality of care they received for the treatment of mental health and substance use disorders. We recognize that patient surveys are challenging to implement for many reasons, including inaccurate or outdated contact information. When working with patients experiencing mental health or substance use disorders, many of whom lack stable housing situations or have inconsistent telephone access, these barriers could be exacerbated. To reduce these survey implementation barriers, we will provide the selected CHCs with survey packets that include a brief paper survey to distribute to patients who meet study criteria. The packet will include information on where patients can return the survey. We will administer the follow-up survey and provide patients with financial incentives for completing surveys to maximize the response rate.

**Table 1. Evaluation design summary**

Evaluation components	Sample research questions	Data sources	Analysis plan
Outcomes and ROI analyses	<p>Has the intervention improved access to treatment and health care outcomes for people with mental health and substance use disorders?</p> <p>Is the intervention cost-effective?</p>	Medicaid claims data	<p>Estimate the proportion of patients who:</p> <ul style="list-style-type: none"> <li>Were screened for a mental health and/or substance use disorder</li> <li>Were diagnosed with a mental health and/or substance use disorder</li> <li>Among those who screened positive, received a diagnostic evaluation and for whom a treatment plan was established</li> <li>Among those who screened positive for opioid use disorder, were treated with buprenorphine/naloxone</li> </ul> <p>Assess the change in the number of new and follow-up visits for mental health and substance use disorders among the target population</p> <p>Assess the change in the use of other health care services (emergency room visits, inpatient admissions, and prescription drug use)</p>
Implementation analysis	What are the barriers and facilitators to implementation and sustainability?	Site visits (two rounds) Telephone interviews (three rounds)	Conduct in-person and telephone interviews with CHC providers and ECHO Access program leadership
Provider survey	<p>Have providers' awareness and knowledge of mental health and substance use disorders increased?</p> <p>Have providers' skills in screening, diagnosing, and treating mental health and substance use disorders improved?</p>	Web-based provider survey	<p>Conduct three rounds of a brief provider survey among providers at CHCs that launch the intervention in the first three years</p> <p>Identify themes through qualitative analysis of barriers/facilitators and providers' awareness, knowledge, and skills</p>
Patient survey	<p>To what extent has the intervention changed patients' self-reported quality of life?</p> <p>To what extent has the intervention affected patients' perceived quality of care for mental health and substance use disorders?</p>	Multiple rounds of patient surveys	Conduct a brief baseline patient survey and two rounds of follow-up surveys to assess the potential impact of ECHO Access on patients' quality of life and perceived quality of care

## Budget estimates

The estimates presented here represent the cost of each of the four evaluation components described earlier, but do not represent firm cost estimates for the work. If the state of New Mexico is interested in some or all of these evaluation activities, Mathematica can provide cost estimates after confirming the elements of the evaluation desired by the state. We would be pleased to discuss the details of a potential evaluation at a time convenient to New Mexico.

**Table 2. Budget estimates**

<b>Evaluation component</b>	<b>Cost estimate for component</b>
Outcomes and ROI analyses	\$389,192
Implementation analysis	\$256,628
Provider survey	\$248,087
Patient survey	\$464,330

