Title: Utilization of the ECHO Model to Improve Primary Care Provider Diagnosis and Management of Autism Spectrum Disorder

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Background:
The prevalence of children diagnosed with autism spectrum disorder (ASD) each year is increasing despite a continued deficit of providers available for an initial diagnostic evaluation. This provider shortage often leads to delays in diagnosis and management for these children, especially in underserved areas. Recently, telehealth models including the Extension for Community Healthcare Outcomes (ECHO), have been utilized and evaluated for numerous medical specialties to address shortages of subspecialty support to primary care providers across rural and underserved areas.

Objectives:
1.) Assess the provider's initial mastery of autism diagnosis and management strategies taught during each session through pre and post questions answered over the course of 6 training sessions.
2.) Assess provider satisfaction and perceived outcomes of ECHO training through surveys
3.) Analyze a Medicaid database of provider diagnostic codes to:
>   a.) Assess frequency of provider use of ASD as a diagnostic code before and after ECHO training
>   b.) Assess provider use of diagnostic codes for comorbidities of ASD before and after ECHO training
>   c.) Assess the frequency that providers prescribed medications or made referrals for therapies related to a diagnosis of ASD before and after ECHO training

Methods:
Primary care providers in Colorado will participate in a 6-week ECHO autism training course to learn diagnostic and management strategies for children with ASD. During the course, providers will participate in answering de-identified questions before and after each training session to assess their initial mastery of the curriculum. Providers will also complete a survey at the completion of training sessions to share their perceived satisfaction and knowledge gained. Diagnostic codes from a Medicaid database will be analyzed for one year before and after providers participate in ECHO training. The frequency that these providers use ASD as well as diagnostic codes for comorbidities of ASD will be compared before and after training. The frequency that these providers make referrals for therapies or prescribed medications related to these diagnoses will also be compared before and after ECHO training.

Results and Conclusions:
Data collection is currently being prepared.