

Project ECHO: Hepatitis C Ambulatory Care Quality Improvement in New Mexico Through Health Information Technology

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Summary: This project builds on the work of [Project ECHO: Extension for Community Healthcare Outcomes](#), which was previously funded by the Agency for Healthcare Research and Quality. Providers require access to patient-specific information to consult on cases, track patient progress, and evaluate clinical outcomes. At Project ECHO's inception, community-based providers transmitted patient-specific information to specialists via a data management system. Data were entered and stored locally on a laptop, transmitted via a secure virtual private network (VPN), and maintained in a centralized Health Insurance Portability and Accountability Act-compliant structured query language database server to support both clinical and research activities. With Project ECHO's rapid expansion, this type of data management proved inadequate because it presented numerous insurmountable barriers to site maintenance, VPN problems, and critical datafeed and reporting inadequacies.

To address these issues, Project ECHO will use an Internet-based clinical management system for patients undergoing treatment for hepatitis C virus (HCV). This system will improve quality of care, and lead to greater knowledge sharing among health care providers for rural and underserved populations. The enhancements to the electronic disease management tool, iHealth, and the clinical management system will standardize data collection, provide practice support, create a central data repository, and allow authorized personnel to view individual patient records. The iHealth tool will be accessed as a Web portal, the central identity for the HCV program, providing a single-access point for its resources. The portal includes search tools that program personnel can use to extract data for monitoring data quality, profiling, quality improvement, and research. Laboratory data from TriCore Reference Laboratories (TriCore) will be uploaded automatically into patients' electronic health records.

The underlying iHealth architecture supports effective management of patient data across multiple provider organizations. Web portals for patients will provide educational links and allow patients to see their summary reports, facilitating better communication with their providers. The provider portal can provide tools for HCV treatment and coordinate training activities. Patient needs will be assessed and determined via patient focus groups.

Specific Aims:

- Develop a disease management tool that will standardize data collection, provide practice support, create a central data repository, and allow authorized personnel to view individual patient records. **(Achieved)**

- Develop a Web portal that creates a central identity for the HCV program and provides a single-access point for its resources. **(Ongoing)**
- Create search tools that program personnel can use to extract data for monitoring data quality, profiling, quality improvement, and research. **(Ongoing)**
- Develop a system that automatically uploads laboratory data from TriCore. **(Achieved)**
- Promote adoption of iHealth clinical management system. **(Ongoing)**

2011 Activities: Disease management tools were developed during the year. There are two safety reports. One is automatically-generated based on audit parameters that are established clinical criteria; the other is a safety report that can be generated by anyone with appropriate authorizations to query certain clinical parameters. The final iteration of the HCV summary report is in the software that tracks clinical data over time during the patient's course of HCV treatment.

The following practice support tool has been developed: An internal calendar that identifies future dates for clinical encounters and labs that must be obtained for compliance with best-practices protocols. Adverse-event identification is accounted for in the safety report.

The provider portal was completed and includes links to provider educational resources including clinical protocols, National Institute on Alcohol Abuse and Alcoholism guides for alcohol interventions, and ongoing clinical trials. Functions to strengthen learning and enhance clinical decisionmaking, including non-identified patient-mirrored cases to enhance learning loops, have been developed. An interface with the iECHO partner relations management tool is being developed for didactics, continuing medical education, and other training functions.

It is now possible to obtain a subset of data from the database to develop outcome studies. Concerns regarding institutional review board and confidentiality have led the team to believe that this should not be a Web-based functionality at this time, and have opted for a human interface.

The first extracted data set was used for research and the [results](#) were published in June in the *New England Journal of Medicine*. This functionality can be provided to any researcher meeting authorization requirements. The roll-out of iHealth clinical management system was initiated.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are mostly on track and project budget funds are somewhat underspent because of delays in staff hiring.

Preliminary Impact and Findings: The project has no findings to date.

Target Population: Adults, Chronic Care*, Hepatitis C

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation

* This target population is one of AHRQ's priority populations.