

**Grant Program to Expand the Use of Electronic Health Records
In New Mexico**

**Summary Report
June 2008**

Introduction

This report summarizes the experiences in the adoption of electronic health record (EHR) systems by 11 medical practice organizations in 17 sites located in 12 New Mexico communities. These were mainly primary care practices participating voluntarily in the New Mexico Medical Review Association's (NMMRA's) Doctor's Office Quality – Information Technology (DOQ-IT) project to implement EHR systems supported by the U.S. Department of Health and Human Services Centers for Medicare & Medicaid Services (CMS). Practices participating in the DOQ-IT project received technical assistance and consultation from NMMRA regarding selection, office assessment and redesign, and implementation and assistance was provided by NMMRA to these practices as a component of their participation. CMS did not provide financial assistance to practices participating in the DOQ-IT project.

The New Mexico Department of Health introduced a grant program to disburse \$166,250 appropriated by the 2007 New Mexico Legislature to expand the use of EHRs in the state provided partial support to these practices. These funds provided a grant equivalent to 50 percent of the cost of software licenses for the systems selected by these practices. This involved a total of 42 billing practitioner licenses and an additional 40 concurrent log-on system licenses distributed across the 11 practice organizations. Participant practices were required to provide documentation of expended or encumbered funds in support of their EHR system acquisition and implementation matching their state grant allocation.

Of the 11 practice organizations, as of July 2008 five have implemented EHR systems from three vendors. Of these organizations, three have implemented eClinicalWorks, one iMedica, and one Amazing Charts. The solo practitioner who implemented Amazing Charts, a relatively inexpensive electronic medical record (EMR) product, has ultimately decided the software does not provide the flexibility to ideally structure EHRs, and has concerns about the viability of future health information exchange and reporting activities with this system. He is currently exploring other EHR systems.

Three organizations, two community health center systems implementing eClinicalWorks and a family medicine practice implementing iMedica, have fairly successfully adopted their EHR systems into their practices. Each practice experienced and solved a variety of challenges and problems in this process related to software, computing environment, clinical practice and staff adoption issues.

One practice (two practitioners in a family medicine practice) continues to experience serious challenges in the adoption of their EHR system. A number of issues have combined to complicate this practices difficulties in system adoption, including high staff turnover in key positions and

unique but devastating vendor support issues. This practice is attempting to work with their vendor to remediate their software and its implementation problems.

Additionally, two practices (a solo family practitioner in a rural community and a hospital-owned and -based teaching family practice) are implementing the microMD and the General Electric Centricity systems, respectively. These practices have coordinated their planning with their EHR software vendors and are well poised for system implementation.

The last four practice systems are part of the health care structure in rural southwest New Mexico. These practices, working with their local independent practice association and the county-owned regional hospital, are collaborating to develop a community-based health record system to ultimately provide area health information exchange. As the project is approaching its third anniversary, these practices and community stakeholders, after considering a half-dozen EHR products, have chosen eClinicalWorks as their vendor, evolved a shared community support structure for the ongoing financial cost of their EHR systems, selected a remote software-as-a-service (SaaS) hosting solution, and begun contracting with their vendors. Implementation of eClinicalWorks is expected in late 2008 or early 2009.

Lessons Learned, Barriers Observed and Recommendations

If the goal is up-to-date electronic health information that can be made portable, assessable, appropriately confidential and secure for each New Mexican, the implementation of interoperable EHRs at the physician practice level is a necessary step in attaining that goal. This goal will not be reached without coordinated effort and consultation to assist practices in navigating the process of adopting electronic health information systems.

The capital costs associated with EHRs is the most frequently cited barrier to their adoption (66 percent) according to a recent national survey referenced in a July 2008 article in the *New England Journal of Medicine*. Cost is a major concern expressed by many New Mexico practitioners as part of their reluctance to implement EHR systems. Other barriers noted by respondents in the national study are noted by New Mexico practices as well, including concern that systems are inadequate and uneasiness over the technical demands of managing EHR systems. These concerns validate the need for the State of New Mexico and involved stakeholders in the health care community to begin a coordinated effort to reduce the barriers to physician practices adopting EHRs in New Mexico.

NMMRA's experience in working with the practices adopting EHRs has resulted in a number of insights and lessons learned, including:

- Particularly in isolated rural communities, the core high-speed network connections needed to maintain commercial EHR systems, given the current remote management models of most vendors, pose a barrier to smooth adoption.
- The process of adopting EHRs in existing medical practices can be challenging on various levels. EHR implementation can amplify weaknesses in practices' organization, staffing and operations so that practices that seemed to function prior to implementation are very threatened when attempting to implement and operate the EHR system. It is critical that

practice weaknesses are addressed through prospective workflow analysis and operational redesign in concert with EHR adoption.

- The technical demands of maintaining dedicated EHR system servers in small physician offices with sufficient remote access for vendor support may not be as major a barrier to successful EHR adoption as some IT experts assume. However, IT support to maintain servers, workstations, software configuration and network components remains a challenge, regardless of the design of EHR software hosting, for some practices.
- Insufficient vendor relations, vendor competency, ongoing software functionality and support issues have plagued some EHR implementations. It is unclear if the EHR vendor community is consistently able to provide the needed technical follow-through required by some practices within the financial constraints of all parties.
- Interoperability and cooperation in integrating various commercial and governmental elements in electronic health information interactions is not currently attainable in all areas where it is represented as being available (e.g., e-prescribing, laboratory interfaces, reporting capabilities). Too frequently, this is an uncontrollable limiting factor on small practices' ability to integrate their EHR systems. However, in New Mexico some key players, notably TriCore Reference Labs, seem to have become effective e-partners for a number of the grantees.
- Many of the problems encountered and ultimately overcome by practices in implementing EHRs were not necessarily those anticipated prior to implementation. Capturing and providing some best practices within the state would be extremely helpful to those beginning the implementation process.
- A well-implemented plan for staff cross-training and retraining of EHR skills in small practices seems essential to avoid problems following staff turnover.
- Most practice energy in adopting EHRs in the initial year(s) is heavily directed toward practice operational issues. If the gains expected from EHRs are to be achieved, it will be necessary to focus specific resources to facilitate practices attending to the patient-centric features of EHRs, and not only to the operational basics of the system (i.e., billing and charting).
- Practices vary substantially in their rate of achieving success in implementing EHRs.

Conclusions

Experience has shown that when sufficiently prepared to adopt EHRs practices of many sizes, specialties and characters can successfully transition to this technology. However, EHRs are integral practice information and management systems that profoundly impact the nature of physician offices' clinical and business operations. Unless practices make the operational adaptations necessary to integrate EHRs into their practices and select EHRs with sufficient flexibility and capability to meet the needs of their operational needs, this process is likely to fail. As in all complex endeavors, the chance of good outcomes favors those who carefully plan for success, and in the adoption of EHR systems this is no exception.

For more information on this activity or to discuss interest in EHR implementation, contact Mark Gottlieb, PhD, NMMRA epidemiologist and health informaticist, at mgottlieb@nmmra.org or (505) 998-9742.