



In the Literature

KAISER PERMANENTE'S EXPERIENCE OF IMPLEMENTING AN ELECTRONIC MEDICAL RECORD: A QUALITATIVE STUDY

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Electronic health record (EHR) systems have great potential to improve health care quality. So far, however, real and perceived barriers—from high costs and decreased productivity to staff frustration—have prevented most providers from implementing them. In “[Kaiser Permanente’s Experience of Implementing an Electronic Medical Record: A Qualitative Study](#),” (*BMJ*, Dec. 3, 2005), researchers interviewed health plan staff members in the midst of an EHR implementation to identify critical junctures in the adoption process, assess the impact of organizational culture and leadership, and learn about the effects on clinical practice and patient care. Author J. Tim Scott, of the University of St. Andrews’ School of Management in Scotland, was supported through a Commonwealth Fund Harkness Fellowship; data collection was supported by the Garfield Foundation.

A research team headed by John Hsu of Kaiser Permanente’s Division of Research interviewed clinicians, managers, and project team members at Kaiser Permanente Hawaii during March and April 2003. The system studied—Clinical Information System (CIS)—was developed by Kaiser and IBM in 2001. In 2003, shortly before study interviews began, the company halted implementation of CIS for a competing system.

Selecting and Testing an EHR System

Many study participants reported frustration from the start, expressing dissatisfaction with the choice of system and a lack of “buy-in” from clinicians. The early testing process seemed to reinforce these feelings and fuel resistance. Twenty-three of the 26 respondents reported substantial software problems, partly resulting from designers’ misunderstanding of clinical processes and clinicians’ lack of a working prototype or adequate technical knowledge. “The problem for internal medicine is that they go through a more complex process to arrive at a diagnosis, but CIS isn’t really designed to do that,” said one team member. To remedy these early issues, the authors suggest establishing a participatory process that values

staff input. Such grassroots involvement can generate commitment from the beginning, they say.

Shifting Roles and Responsibilities

Some respondents noted that the EHR system reduced clinician productivity, an ongoing problem that affected patient care. One complaint made by doctors was that they felt they were becoming expensive order entry clerks. Effective implementation, most agreed, required a clear delineation of roles and as well as shifts in work responsibilities.

But other health plan staff welcomed the sense of greater accountability that the system provided. “No question in my mind, it’s forced me to be more organized, more accountable. It’s forced me to do what I should have been doing all along,” said one clinician. Respondents cited additional benefits to the changes in roles, such as nurses taking on more patient follow-up work and the ability to schedule telephone consultations in place of office appointments.

Organizational Culture

Respondents felt that while the EHR selection process should have been more participatory, a direct, hierarchical leadership style during implementation could help resolve problems quickly, and avoid unnecessary frustration. Overall, the organization’s culture—steeped in the Hawaiian tradition of civility and nonconfrontation—served to inhibit criticism, encouraging passive resistance to change and depriving decision-makers of important feedback. After experiencing a heightened climate of conflict, respondents expressed both relief and regret when CIS was withdrawn. They remained optimistic about implementing the new system, however, feeling that the hardest challenge—transitioning from paper to computer—was already behind them.

It is important to note that this was Kaiser’s experience with one EHR system in one region. The implementation of the replacement system, while not without difficulties, has gone well, with broad support among clinicians and managers.