

Synthesizing Lessons Learned Using Health Information Technology

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Summary: Over the past decade, the Practice Partner Research Network (PPRNet), a practice-based research network consisting of more than 224 physician practices, has established a theoretically informed framework for translating research into practice (TRIP) in small-to-medium-sized primary care practices that use the Practice Partner® electronic medical record (EMR). The PPRNet-TRIP Quality Improvement (QI) model has three components— intervention, improvement, and practice development—that assist practices with implementation of QI measures.

This project conducted an evaluation of the mixed-methods data and lessons learned from a decade of PPRNet-TRIP research. The experience of PPRNet research participants and researchers enhanced the understanding of the PPRNet-TRIP components and how they improved primary care quality. The cross-case analyses conducted through this research generated important themes, provided new insights, and generated new hypotheses about factors that improve the quality of care through the use of EMRs.

Each of seven nationally funded PPRNet initiatives was reviewed for new interpretations and previously unidentified concepts. All source data for each project was embedded into NVivo 8.0 qualitative data analysis software for analyses. The research team read, re-read, and coded the full set of data using each whole project document or component.

Using the insight gleaned from the secondary analysis across all the studies and in collaboration with the PPRNet research team and the expert advisory panel, the research team developed a semi-structured interview guide to examine the perspectives of practice participants who have been engaged in previous PPRNet research. This interview guide was cognitively pre-tested with a small sample of practice participants to ensure that participants understood and could articulate the meaning of each question. Participants for the interviews on sustainability, maintenance, and team development were recruited from PPRNet practices that have participated in past studies.

Finally, by identifying the patterns transcending the individual projects, the project team refined and validated the PPRNet-TRIP QI model and its three components. This project combined observation data from site visits; group and individual interviews with practice participants; interactions of practice liaisons at best-practice network meetings; and ongoing correspondence in conjunction with quantitative practice performance data on the specific measures related to each particular study to identify strategies implemented and barriers and facilitators of QI efforts by practices using EMRs. The secondary analyses of the primary findings in a context separate from the individual study, using “immersion and crystallization,” allowed

new interpretations and learning about how the research team and the primary care practices within the research network have evolved to improve quality while implementing health information technology.

Specific Aims:

- Complete a mixed-methods secondary analysis to synthesize findings related to improving quality using health information technology in primary care across seven nationally funded PPRNet initiatives. **(Achieved)**
- Examine current perspectives of PPRNet-TRIP study practice participants related to developing and sustaining QI efforts and team development for an increasingly active health care delivery role through robust EMR implementation. **(Achieved)**
- Integrate findings from PPRNet's previous studies with the current perspectives of practice representatives to refine the overarching theory-based PPRNet-TRIP QI model. **(Achieved)**

2012 Activities: Dr. Nemeth completed all major activities, analyzed data, and began developing a manuscript. The current perspectives of PPRNet participants related to developing and sustaining QI and team development were explored at the PPRNet meeting. The interview tool was pre-tested with providers at four practices, who demonstrated that they understood the questions and were able to inform them. In the meeting, practice members offered perspectives related to the new model, including development for QI using health information technology (IT), role redesign, and staff development.

Followup with selected participants explored themes to search for specific examples that were not previously found within other data sources. Several telephone interviews with PPRNet members provided insight on how practices develop their teams, activate patients, and adapt and use health IT tools.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are mostly on track and the budget spending is on target. The project is using a 1-year no-cost extension period for additional review of data analysis and manuscript development.

Preliminary Impact and Findings: The 134 primary care practices participating in PPRNet research studies established a collaborative learning community where practices demonstrated new ways to use health IT and their staff. Four main concepts were noted: 1) develop a team care practice; 2) adapt and use health IT tools; 3) transform practice culture and quality; and 4) activate patients.

Target Population: General

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Synthesis and Dissemination