Improvement Science Research Network
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SciTS Topic: Team Science/Interdisciplinary Research Training, Multi-team Team Science

Keywords: Collaboratives, Academic-Practice Partnerships, Interdisciplinary Teams

Background:
Quality improvement and patient safety in healthcare are high priorities held by the federal government, accrediting bodies, regulatory agencies, and patient-advocacy groups; yet insufficient progress has been made in quality improvement science, particularly focusing on care processes in the clinical setting.

Objectives:
The broad goal of this project is to create a new large-scale coordinating center to support this unique practice-based improvement science research network (ISRN) for the purpose of accelerating inter-professional improvement science through collaborations and developing academic-practice partnerships.

Specific Aims
Our specific aims are as follows:
1. Design an ISRN that uses best practices from PBRNs and capitalizes on synergies between the ISRN coordinating center team, Steering Council and the local Institute for Integration of Medicine and Science (IIMS), to achieve economies of scale and shared learning.
2. Recruit and engage key members from leading clinical and academic settings to be members of an effective national research network that collaborates to generate improvement science to guide practice.
3. Launch a relevant, rigorous, and robust ISRN program of research studies to improve patient care within microsystem and system contexts and across multiple hospital sites.
4. Establish ISRN coordinating center resources and structures that enhance ability of clinical and academic researcher partners to conduct and disseminate rigorous improvement research studies across multiple settings.
5. Design a web based electronic technology infrastructure that supports the conduct of improvement research studies and affords efficiency and accuracy for collecting, storing, processing, using, and communicating data and information.
6. Evaluate the essential network features, including governance and policies, staff support, communication, and effectiveness of multi-site study support

Impact:
The ISRN will fill a national gap by creating an infrastructure hub for interprofessional, interdisciplinary improvement science. The evidence produced through the ISRN can shed light on effective care delivery in a clinical setting, with the potential of making major impact on care processes, patient safety and patient outcomes. In addition, the resulting improvement science could create direct savings by protecting the estimated 98,000 lives lost to health care errors each year and the estimated $17 billion per year associated with preventable errors (IOM, 2001).

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