IMPROVEMENT SCIENCE

RESEARCH NETWORK ... improving patient outcomes

A publication of the Improvement Science Research Network

Network News

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Expert Perspectives

Dismantling Silos

A major goal of the ISRN is to forge partnerships between academic and clinical researchers. Such partnerships can build the base of evidence for practices and ultimately improve care processes and patient outcomes.



"Professionals across the country are researching quality, but the results are too often scattered and not made available to others."

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SUZANNE BEYEA, RN, PHD, FAAN, ASSOCIATE PROFESSOR, FAMILY AND COMMUNITY MEDICINE, DARTMOUTH MEDICAL SCHOOL, AND ISRN STEERING COUNCIL MEMBER

But partnerships have not always come easily. "People who work in health care tend to work in silos," says Suzanne Beyea, RN, PhD, FAAN, associate professor, Family and Community Medicine, Dartmouth Medical School, and ISRN Steering Council member. "We tend to just stay within our organizations, within our fields, within our perspectives. This makes it challenging to offer the best quality of care to



TME to Network News!

by KATHLEEN R. STEVENS, EdD, MS, RN, ANEF, FAAN, ISRN principal investigator

It is my pleasure to welcome you to *Network News*, a quarterly newsletter designed to connect you to the emerging Improvement Science Research Network (ISRN)—the first nationwide collaboration of clinical and academic leaders devoted to generating a robust science to accelerate quality improvement in hospital patient care.

The summer of 2010 will be an exciting period of firsts for the network: conducting our first Improvement Science Summit, unveiling national research priorities, welcoming our first members, and launching several multisite studies and technical assistance activities.

For more about all these developments, please read on and consider joining us in this unprecedented collaborative effort to build a strong scientific foundation for achieving widespread gains in the quality and safety of patient care.

ISRN Basics

Why an ISRN? Although improving the quality and safety of patient care has been a national priority for more than a decade, too little progress has been made, particularly in hospitals.

How is the ISRN funded? By a 2-year, \$3.1 million grant from the National Institute of Nursing Research of the National Institutes of Health, with funds from the

American Recovery and Reinvestment Act of 2009.

What are the ISRN's major aims?

To select national improvement science research priorities, support multidisciplinary collaboration on improvement science projects, and build a large body of scientific findings to guide better patient care.

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Expert Perspectives

patients or even to know what constitutes the best quality of care. We really need a circle so that practice informs theory and vice versa, rather than only staying in our parallel worlds."



'Care providers often say that they are tired of being told what to do by academics who aren't in their

shoes. Research is a way for practitioners to have a say in framing research questions and terms. Their participation in research is also a way to ensure that research is relevant." MICHAEL L. PARCHMAN, MD, MPH, PROFESSOR, THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO

"A more participatory model of research allows academics to go to care providers and say, 'Here's the evidence we have so far on what constitutes the right treatment at the right time for the right patient," says Michael L. Parchman, MD, MPH, professor, the University of Texas Health Science Center at San Antonio. "How would this work in your setting? What would you need in order to do this?' Then design a research project together to track the results and adjust the theory."

Collaboration between theoreticians and practitioners on research makes sense, Parchman argues, quoting a colleague: "If we want more evidencebased practice, we need more practice-based evidence."

A Summit Preview

he first Improvement Science Summit will convene in San Antonio, Texas, on July 7, 2010.

Titled "The Way Forward," the summit will launch the ISRN's national research network, which is designed to transform patient care and improve patient outcomes.

"By developing an evidence base for quality improvement, the ISRN will identify the most effective tools, methodologies, and research designs that will lead to improvements in health outcomes, patient safety, and health care delivery across the nation," says Kathleen R. Stevens, EdD, MS, RN, ANEF, FAAN, professor and director, Academic Center for Evidence-Based Nursing, the University of Texas Health Science Center at San Antonio. Stevens is the principal investigator of the Improvement Science Research Network.

The opening sessions of the summit will articulate a vision for improvement science research. Carolyn Clancy, MD, director, Agency for Healthcare Research and Quality, will speak on The Promise of Improvement Science, and Kathleen Stevens will speak on The Improvement Science Research Network: Launching the Future Today.

Speakers Jack Needleman, PhD, FAAN, and Marybeth Farquhar, PhD, RN, MSN, will offer insights into groundbreaking research on improvement. Needleman is professor and director of the doctoral and master's





JACK NEEDLEMAN

CAROLYN CLANCY

Jack Needleman and Carolyn Clancy are among the groundbreaking researchers who will launch the first Improvement Science Summit in San Antonio, Texas, this July.

The Summit will set the course for the ISRN by exploring the overlapping paradigms of improvement, translational, and implementation science.

Health Services programs at the University of California, Los Angeles, School of Public Health. He will focus on Improvement Science: Theories, Research Design, and Statistics. Farquhar will discuss Using Quality Indicators in Improvement Science. Farquhar is the managing director of performance measures at the National Quality Forum.

Participants will learn about best practices in networking to advance research. They will also have the opportunity to join one of three multisite research teams: frontline engagement in quality improvement, preventing medication errors, and team performance for patient safety.

Visit www.isrn.net

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ISRN Basics

Who Governs the ISRN? A Steering Council composed of 16 health care experts from both public and private organizations together with the ISRN Coordinating Center, housed in the Academic Center for Evidence-Based Practice at the University of Texas Health Science Center at San Antonio. Westat, Rockville, MD, is providing communications, research, infrastructure, and technology assistance to the ISRN.

What Kind of Studies Are Likely?

Improvement studies typically focus on strategies to build safer work cultures, engage frontline staff in improvement, and find effective ways to spread evidence-based practice in an institution. Because ISRN infrastructure can support large, rigorous multisite studies, rapid determination and wide dissemination of the most effective strategies will be enhanced.

ISRN Infrastructure Benefits

Ithough some groundbreaking research has been done on patient safety and quality improvement, such efforts have often been confined to localized sites, and there has been little opportunity to test findings, collect data from very broad populations, or share what has been learned.

"Traditionally, medical research has gone from the laboratory bench to trials to medical journals to never being heard from again," says Michael L. Parchman, MD, MPH. "We need to take medical research from the bench to the bedside to the medical community so that it can inform practice."

The ISRN will make it easier for medical professionals

to design, implement, and share research by coordinating and facilitating interprofessional research on improvement and implementation science. Such collaborations among clinical and academic researchers and among multiple sites can allow researchers to gather larger samples under rigorous standards to yield powerful and generalizable conclusions.

At the heart of this mission is an ISRN infrastructure that will support members' robust, multidisciplinary improvement science research.

This technology infrastructure will make it easier for clinical and academic researchers to collaborate and to collect, process, analyze, and communicate data. The ISRN's hub will include these useful features for members:

- A **web portal** providing secure communication, storage, and sharing of documents and data;
- A technical support line offering access to expert guidance in conducting research and using statistics;
- A **collection of research instruments** available online;
- Web events providing opportunities to collaborate and learn.

See "Web Events Update" (right) for details about upcoming opportunities.

Featured Research: Team STEPPS

A research and practice initiative that has been tested in both military and civilian hospitals illustrates how technology infrastructure can advance research to improve patient care. The project is called Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS).

"Patient safety is a team activity," says Mary

Salisbury, RN, MSN, ISRN Steering Council

TeamSTEPPS training and evaluation meth-

executive leaders in health care to frontline

leaders to providers of care." Rather than

simply having safety as a goal, TeamSTEPPS

relies on evidence-based actions, tools, and

strategies that deliver safety. Structured

communication between team members

member and one of the designers of the

odologies."Everyone is responsible, from

"Patients and caregivers should not be at risk in the ways they often are now. We are working to radically change health care culture and plot a course to zero tolerance for causal factors of error."

MARY SALISBURY, RN, MSN, PRESIDENT, THE CEDAR INSTITUTE, INC., AND ISRN STEERING COUNCIL MEMBER

> ensures that everyone reviews the risk for each patient and plans accordingly. Nine sites are now piloting an online reporting mechanism within the Military Health System that allows teams to grasp the big picture and determine needs accurately.

At the Improvement Science Summit, Salisbury and Heidi King, MS, FACHE, will present features of TeamSTEPPS, which some participants may choose to test at their sites. To learn more about this approach, see "Research Resources" on page 4.



The Way Forward: An Introduction to Improvement Science

A primer on improvement science and on how the Improvement Science Research Network can be a catalyst for change. June 2010

Hitting Moving Targets from Moving Platforms

Key areas of interest in improvement science and an introduction to the tools and techniques available to clinicians and researchers to assist them with conducting improvement research. **October 2010**

Rigor and Rapid Testing

Examples of improvement research and the methods used to rapidly test improvements that produce rigorous, scientifically compelling results.

December 2010

Science to Service

Strategies for applying improvement science in the context of organizational culture to embed sustainable practice improvement and achieve the advancement of bedside care.

March 2011

For details and registration, visit the ISRN web site: www.isrn.net. @



Selecting ISRN Research Priorities



"The research priorities will help us zero in on those practices at the systems level over which nursing has the greatest influence."

CATHY RICK, RN, NEA-BC, FACHE, CHIEF NURSING OFFICER, DEPARTMENT OF VETERANS AFFAIRS (VA), AND ISRN STEERING COUNCIL MEMBER

The ISRN is proposing a national program of research to identify and advance the most effective improvement strategies. To lend focus to the program, the ISRN Steering Council has selected a group of research priorities (to be unveiled at the first Improvement Science Summit).

"The research priorities will help us zero in on those practices at the systems level over which nursing has the greatest influence," says Cathy Rick, RN, NEA-BC, FACHE, chief nursing officer, Department of Veterans Affairs (VA), and ISRN Steering Council member. "Working with colleagues from other disciplines like engineering and human factors will help nursing be in the right position to act as a catalyst for change."

The priorities were drawn from environmental scans, literature reviews, the priorities of major health care organizations, and an online survey sent to 2,777 stakeholders.

"ISRN leadership cast a very wide net to tap a variety of subject matter experts from across many disciplines in both the practice and academic communities," says Rick. "And the Steering Council—which helped vet the priorities—is also interdisciplinary."

IMPROVEMENT SCIENCE RESEARCH NETWORK

Joining the Network

Membership in this emerging national research network is open to quality improvement directors, other health care providers engaged in quality and safety improvement, and academic and practice scientists committed to building a rigorous scientific basis for improving care and patient outcomes.

The ISRN Steering Council will finalize membership benefit levels and participation fees in July 2010. Agency and individual memberships will be available.

Complete information on becoming a network member will be posted on the ISRN web site during the summer of 2010.

Visit www.isrn.net. 🦈

CREDITS

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Research Resources

To learn more about the TeamSTEPPS work of Mary Salisbury and Heidi King featured on page 3 of this issue, consult the following references:

Reading for executive leadership: Clancy, Carolyn M., and David N. Tornberg. 2006. TeamSTEPPS: Integrating teamwork principles into healthcare practice. *Patient Safety & Quality Healthcare* (Nov/Dec): 16–20.

Reading for educators: Salas, Eduardo, Michael A. Rosen, and Heidi B. King. 2009. Integrating teamwork into the "DNA" of graduate medical education: Principles for simulation-based training. *Journal of Graduate Medical Education* 1 (2): 243–244.

Reading for executive and frontline leaders, steering committees, and change teams: Salas, Eduardo, Sandra A. Almeida, Mary Salisbury, Heidi King, Elizabeth H. Lazzara, Rebecca Lyons, Katherine A. Wilson, Paula A. Almeida, Robert McQuillan. 2009. What are the critical success factors for team training in health care? *The Joint Commission Journal on Quality and Patient Safety* 35 (8): 398–405.

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