

2014 Improvement Science Summit on Research Methods

Theme: Building Evidence to Impact Outcomes

(Note: Up to 14.7 CE)

Tuesday, August 5, 2014 – Presider: Jack Needleman, PhD, FAAN

7:00 AM-8:00 AM **Onsite Registration & Continental Breakfast**

8:00 AM-8:15 AM **Rapid, Relevant, Rigorous Improvement**

Kathleen R. Stevens, RN, EdD, ANEF, FAAN
Professor and Director
Improvement Science Research Network
Academic Center for Evidence-Based Practice
UT Health Science Center San Antonio

Dr. Stevens sets the stage by establishing a foundation for the need to conduct improvement research that is rapid, relevant, and rigorous.

8:15 AM-9:35 AM **Building Evidence to Impact Outcomes**

Don A. Goldman, MD
Chief Medical and Scientific Officer
Institute for Healthcare Improvement (IHI)

Speaking to the theme of the Summit, building evidence to impact outcomes, Dr. Goldman will present national trends in healthcare improvement and the impact it has on patients.

9:35 AM-9:50 AM **Breaks and Exhibits**

9:50 AM-11:00 AM **The Role of Theory and Explanation in Improvement Research**

Reuben R. McDaniel, Jr., EdD
Charles and Elizabeth Regents Chair
Department of Information, Risk and Operations Management
McCombs School of Business
The University of Texas at Austin

Complexity theory is a central framework for healthcare improvement research. Healthcare as a complex adaptive system requires unique approaches to research, study design, and data interpretation. In this presentation Dr. McDaniel will discuss the roles of complexity science and healthcare management in improvement research.

11:00 AM-12:00 PM **Patient Centered Improvement Research: Insights from PCORI**

Debra Barksdale, PhD, FNP-BC, ANP-BC, CNE, FAANP
Associate Professor, School of Nursing, University of North Carolina at Chapel Hill, NC Board of Governors for Patient – Centered Outcomes Research Institute (PCORI)

Dr. Barksdale will present on insights gleaned from national research initiatives focused on a patient centered outcomes. Current priorities and methodologies in patient centered outcomes in research will be presented.

12:00 PM-2:00 PM

Lunch On Own & Exhibits

2:00 PM-
3:00 PM

Advances Made in EDM for Producing Knowledge About Improvement

Margo Edmonds, PhD
Vice President
Evidence Generation and Knowledge Translation
AcademyHealth

Electronic data methods is the use of clinical data (i.e. EHR) for the conduct of comparative effectiveness research, patient centered outcomes research and improvement research. Learn how EDM can be used to advance patient outcomes and improve practices in healthcare.

3:00 PM-
4:00 PM

Analytical Methods and Quality Measures in Quality Improvement

Victoria Jordan, PhD
Director, Quality Measurement and Engineering
UT MD Anderson Cancer Center

Dr. Jordan's presentation will focus on the development of new metrics, inclusion of display data in methodology and analysis useful in improvement research.

4:00 PM-5:00 PM

Research Across the Nation: Attended Poster Presentations

5:00 PM-
6:30 PM

Student Roundtable with Summit Experts-Student Program

Chair: Vivian Low, MPH, RN-BC, FPCNA
Clinical Manager, Cardiac & Pulmonary Wellness Center
Norma Melchor Heart & Vascular Institute
ISRN Steering Council Member

This roundtable discussion is open to undergraduate and graduate students to interact with experts in the field of Improvement Science. Students will have the opportunity to speak with invited professionals from the healthcare industry and academia who are experts in the field of improvement science research. This is a great opportunity for students to meet other students, build collaborations, and learn from work that others are doing.

5:00 PM-6:30 PM

ISRN Network Study: STAR-2 Research Collaborative Meeting – *Invitational*

5:00 PM-6:30 PM

ISRN Network Study: Medication Errors Research Collaborative Meeting – *Invitational*

Wednesday, August 6, 2014 – Presider: Jack Needleman, PhD, FAAN

7:00 AM-8:00 AM **Pediatric Special Interest Group – Open Meeting**

7:00 AM-8:00 AM **Doctoral Education for Improvement Science Special Interest Group – Open Meeting**

7:00 AM-8:00 AM **Continental Breakfast & Exhibits**

8:00 AM-8:15 AM **Drawing Explanations from Clinical Data to Improve Outcomes**

Jack Needleman, PhD, FAAN

Professor, Department of Health Policy & Management
Director, Health Policy & Management PhD and MS Programs
Associate Director, UCLA Patient Safety Institute
UCLA Fielding School of Public Health
ISRN Steering Council Member

Dashboard data, run charts and control charts are all useful in evaluating improvement research. However, if investigators are not able to draw conclusions from this data, improvement projects cannot be fully evaluated.

8:15 AM-9:35 AM **Evaluation Implementation and Outcomes of Improvement**

John Øvretveit, BSc (Hons), MPhil, PhD, CPsychol, CSci, MIHM

Director of Research
Professor of Health Innovation Implementation and Evaluation
Medical Management Centre
The Karolinska Institutet, Stockholm
ISRN Steering Council Member

Evaluation of improvement research is an essential part of any successful research program. Dr. Øvretveit, international expert in evaluation will present different methodologies for evaluating the implementation of improvement research and the outcomes of improvement.

9:35 AM- 9:50 AM **Break and Exhibits**

9:50 AM-11:00 AM **Methodologies for Improvement Using Hospital EMR: The World of Big Data**

Wilson Pace, MD, FAAFP

Professor, Family Medicine, University of Colorado, Denver
ISRN Steering Council Member

The world of Big Data presents many opportunities for researchers to study clinical outcomes of improvement research. With an increase in funding agencies wanting studies using Big Data, investigators need to boost their capacity to use methodologies for improvement using hospital EMR.

11:00 AM-12:00 PM **Applying Engineering Principles in Interventions to Improve Hospital Operations**

Anita L. Tucker, MA, DBA

Associate Professor of Business Administration
Harvard Business School
ISRN Steering Council Member

Workflow disruptions (operational failures), performance gaps, and organizational factors impact healthcare delivery. Engineering principles offer the opportunity to improve hospital operations and dramatically improve patient outcomes.

12:00 PM-12:30 PM **Networking Lunch (Lunch served)**

12:30 PM-
1:30 PM

Panel: ISRN Network Study Updates:

Moderator: **Frank Puga, PhD**
Assistant Professor/Research
Academic Center for Evidence-Based Practice
Department of Health Restoration and Care
Systems Management
UT Health Science Center San Antonio

a. ISRN Network Study: STAR 2 – Small Troubles Adaptive Responses

Network Study PI: **Kathleen R. Stevens, RN, EdD, ANEF, FAAN**
Professor and Director
Improvement Science Research Network
Academic Center for Evidence-Based Practice
UT Health Science Center San Antonio

b. ISRN Network Study: Cognitive Load Interruptions and Distractions on Medication Administration Errors

Network Study PI: **Lily Thomas, PhD, RN, FAAN**
Vice President of System Nursing Research
North Shore-LIJ Health System

Network study principal investigators report back on the results on two ISRN landmark studies.

1:30 PM-2:30 PM

Research Across the Nation: Attended Poster Presentations

2:30 PM-
3:30 PM

Panel: ISRN Network Study Pipeline:

a. ISRN Network Study Pipeline and Call for PIs

Moderator: **Darpan Patel, PhD**
Assistant Professor/Research
Academic Center for Evidence-Based Practice
Department of Health Restoration and Care
Systems Management
UT Health Science Center San Antonio

b. Stress and Fatigue in the Workforce

Network Study PI: **Frank Puga, PhD**
Assistant Professor/Research
Academic Center for Evidence-Based Practice
Department of Health Restoration and Care
Systems Management
UT Health Science Center San Antonio

c. CAPTURE Falls

Network Study PI: **Katherine J. Jones, PT, PhD**
Associate Professor
Division of Physical Therapy Education
School of Allied Health
University of Nebraska Medical Center

d. What to do Next?

***Moderator:* Darpan Patel, PhD**

Assistant Professor/Research
Academic Center for Evidence-Based Practice
Department of Health Restoration and Care
Systems Management
UT Health Science Center San Antonio

Network study PIs are ready to launch multisite studies and will present their projects and how hospitals can engage in these projects. Each of these projects count towards Magnet and other accreditation programs and offer opportunities for publications and presentations for participating sites.

3:30 PM-3:45 PM

Break and Exhibits

3:45 PM-
4:45 PM

SEM, SSCM, and Statistics Reform in Improvement Research

Rex Kline, PhD

Professor, Department of Psychology
Wayne State University
Professor Concordia University
Montreal, Quebec, Canada

Dr. Kline will present on the balance between the technical and practical aspects of structural equation modeling and its application in healthcare improvement.

4:45 PM-
5:00 PM

Summary and Closing

Kathleen R. Stevens, RN, EdD, ANEF, FAAN

Professor and Director
Improvement Science Research Network
Academic Center for Evidence-Based Practice
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****The conference hosts reserve the right to substitute speakers or cancel and reschedule sessions****