

News from the Health Care Technical Group

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**58th Annual
Meeting
Chicago
Oct. 27-31, 2014**



Message from the Chair

It's that time again! The annual meeting is almost here and I hope you are excited!

The presence of Human Factors and Ergonomics (HFE) professionals in the healthcare profession is growing by the day. However, we have not made it to the place where there are HFE experts everywhere they are needed. There is still more work to be done. And that work continues in about a month when we meet in Chicago to discuss, critique, collaborate and encourage each other in our work as well as assist in preparing the next generation of researchers.

2014 saw HFE's profile raised with the release of national reports speaking to the role we can play in healthcare. Three examples include:

- National Institute of Standards & Technology (NIST) report 7988 - Integrating Electronic Health Records into Clinical Workflow: An Application of Human Factors Modeling Methods to Ambulatory Care. HCTG Authors included Emily S. Patterson, Ayse P. Gurses, Ant Ozok
- The President's Council of Advisors on Science and Technology (PCAST) Report on Better Health Care and Lower Costs: Accelerating Improvement through Systems Engineering. The report identifies a comprehensive set of recommendations to address cost and quality challenges, including through an

- interdisciplinary approach known as systems engineering.
- AHRQ TeamSTEPPS: Strategies and Tools to Enhance Performance and Patient Safety. It was developed in collaboration by the United States Department of Defense and AHRQ in order to support effective communication and teamwork in health care.

And this doesn't even begin to describe all the inroads made into healthcare systems.

We look forward to similar success at the 58th Annual Meeting in Chicago, IL. Once again, we will have the annual successful networking event with the Product Design TG. I have one request – please thank Stan Caplan for organizing it when you see him throughout the meeting. This year's event will be on October 28th at McCormick & Schmick's, a short walk from the conference hotel. In addition, I would like to thank Dr. -- Jennie J. Gallimore (Technical Program Chair) and Dr. Enid Montague (Newsletter Editor) for their leadership and efforts. Thanks to all those who submitted and reviewed materials for the annual meeting.

See you all in Chicago! Michelle

Michelle Rogers, PhD
Associate Professor



**2014 Annual Meeting
Conference Sessions**

HC1 - Consumer Health Care Information Systems

Kapil Chalil Madathil (Corresponding Author, Presenting Author), Joel S. Greenstein, Reshmi Chalil Koikkara

An Investigation of the Factors That Predict a Healthcare Consumer's Use of Anecdotal Healthcare Information Available on the Internet

Kailyn Cage (Corresponding Author, Presenting Author), Luis Santos, Carley Scott, Monifa Vaughn-Cooke

Personal Health Record Design Preferences for Minority Diabetic Patients

Jessica Taha (Corresponding Author, Presenting Author), Joseph Sharit, Sara J. Czaja

Usability of an Electronic Personal Health Record (PHR) Among a Diverse Group of Adults

Laura G. Militello (Corresponding Author, Presenting Author), Morgan R. Borders, Nicole B. Arbuckle, Mindy E.

Persuasive Health Education Materials for Colorectal Cancer Screening

HC2 - Managing Interruptions in Health Care: From Theory to Practice

Discussion Panel - Raj Ratwani (Corresponding Author, Presenting Author), Zachary Hettinger, Julian Brixey, A. Joy Rivera, Lacey

Managing Interruptions in Healthcare: From Theory to Practice

HC3 - Understanding Caregiver Tasks

Sarah E. Gregg (Corresponding Author, Presenting Author), Ashley N. Ferguson, Francis T. Durso

A Method for Aggregating Strategies Across Individuals: Managing a Lack of IV Access

Sara E. Bowman (Corresponding Author), Wendy A. Rogers (Presenting Author)

Understanding Contextual Decision Making by Assisted Living Caregivers: Implications for Training and Design

A. Leah Zulas (Corresponding Author, Presenting Author), Aaron S. Crandall, Maureen Schmitter-Edgecombe

Caregiver Needs From Elder Care Assistive Smart Homes: Children of Elder Adults Assessment

Denny Yu (Corresponding Author, Presenting Author), Jackie S. Cha, Steven J. Kasten, Thomas J. Armstrong

Gaze and Viewing Patterns in Microsurgery: Task Analysis in the Operating Room

Abigail Terhaar (Corresponding Author, Presenting Author), Ju-Whei Lee, Amye Tevaarwerk, Mary Sesto, Douglas Wiegmann, Michael Fisch

Work Status of Individuals With Advanced Cancer

HC4 - Medical Team Handoffs: Current and Future Directions

Discussion Panel - Keaton A. Fletcher, Wendy L. Bedwell (Presenting Author), Michael Rosen (Presenting Author), Ken Catchpole (Presenting Author), Elizabeth Lazzara (Presenting Author)

Medical Team Handoffs: Current and Future Directions

HC5 - Design of Health-Care Products and Systems

Ahmed Radwan (Corresponding Author, Presenting Author), Dale Scalise-Smith (Presenting Author)

Mechanical and Cardiopulmonary Responses to the Use of a Newly Designed Leg Simulator

Luis Samai Santos (Corresponding Author, Presenting Author), Obhafuoso Olumese, Monifa Vaughn-Cooke

Glucometer Design for Patients With Vision and Mobility Impairments

Mia McLanders (Corresponding Author, Presenting Author), Chiara Santomauro, Jimmy Tran, Penelope Sanderson

Tactile Displays of Pulse Oximetry in Integrated and Separated Configurations

Kevin D. Cluff (Corresponding Author, Presenting Author), Mary Mathieu, Anke Schreiber, Denise Schulz, Amanda Weller, Ji Zhou

Usability Testing of Medication Packaging in a Pharmacy Environment

Amanda J. Ashdown (Presenting Author), Mark W. Scerbo (Corresponding Author), Brittany L. Anderson-Montoya, Lee A Belfore II, Alfred Z. Abuhamad, Stephen S. Davis

User Placement of a Visual Aid for Detecting Critical Signals in Fetal-Heart Rate Tracings: A Yoke-Control Study

HC6 - Surgical Performance and Simulation Training

Raghu Prasad (Corresponding Author, Presenting Author), M. Manivannan

Comparison of Force-Matching Performance in Conventional and Laparoscopic Force-Based Task

Karen B. Chen (Presenting Author), Kevin Ponto, Mary E. Sesto, Robert G. Radwin (Corresponding Author)

Influence of Altered Visual Feedback on Neck Movement for a Virtual Reality Rehabilitative System

Katherine E. Law (Presenting Author), Emily Hildebrand, Joao Oliveira-Gomes, Susan Hallbeck, Renaldo C. Blocker (Corresponding Author, Presenting Author)

A Comprehensive Methodology for Examining the Impact of Surgical Team Briefings and Debriefings on Teamwork

Yiman Lou (Corresponding Author, Presenting Author), Jeff T. Flinn, Subhashini Ganapathy, Peter Weyhrauch, James Niehaus, Bishop Myers, Caroline G. L. Cao

Supporting Procedural and Perceptual Learning in Laparoscopic Surgery

Xiaopeng Yang (Presenting Author), Hee Chul Yu, Younggeun Choi, Wonsup Lee, Jaedo Yang, Hongpil Hwang, Ji Hyun Kim, Baik Hwan Cho, Heecheon You (Corresponding Author)

Development and Usability Testing of Dr. Liver™: A User-Centered 3D Virtual Liver Surgery Planning System

HC7 - The Work and Work Systems of Patients: A New Frontier for Macroergonomics

Discussion Panel - Rupa S. Valdez (Corresponding Author, Presenting Author), Richard J. Holden (Presenting Author), Ann S. Hundt (Presenting Author), Jenna L. Marquard (Presenting Author), Enid Montague (Presenting Author), Daniel Nathan-Roberts (Presenting Author), Calvin K. Or (Presenting Author)

The Work and Work Systems of Patients: A New Frontier for Macroergonomics in Health Care

HC8 - Electronic Health-Care Systems

Nadine Moacdieh (Corresponding Author, Presenting Author), Travis Ganje, Nadine Sarter
Electronic Health Records: Effects of Clutter and Stress on Physicians' Information Search and Noticing Performance

Allan Fong (Corresponding Author, Presenting Author), Seth Krevat, David Bauer, Gabriel Spencer, Raj Ratwani

Making Sense of Patient Safety Event Data: Leveraging the Power of Visualization

Stephen Harrell (Corresponding Author), Jennie Gallimore (Presenting Author), Brian Zoll, Corinne Mowrey, Pratik Parikh, Steed Benson, Brian Burke

Challenges in the Electronic Consult Process for Diabetes Treatment: A Systems Approach

HC9 - Health-Care Collaborations: Improving Patient Quality and Safety Using Team and Systems Engineering

Discussion Panel - Tosha Wetterneck (Corresponding Author), Michelle M. Kelly (Presenting Author), Pascale Carayon

(Presenting Author), Mary Sesto (Presenting Author), Amye Tevaarwerk (Presenting Author), Michelle Chui (Presenting Author), Jamie Stone, Peter Hoonakker (Presenting Author), Al Musa, G. Talley Holman (Presenting Author), John Beasley

Improving Quality and Safety Through Human Factors Collaborations With Healthcare: The System Engineering

HC10 - Interruptions and Teams

Tara McCurdie (Corresponding Author, Presenting Author), Varuna Prakash, Patricia Trbovich

The Use of Multiple Methods to Explore the Impact of Interruptions on Intravenous (IV) Push Delivery

Nicole E. Werner (Corresponding Author, Presenting Author), Richard J. Holden

Exploring Interruptions in the Wild: How Are Interruptions Experienced in Dynamic Action Teams?

Yan Xiao (Corresponding Author, Presenting Author), Susan Hallbeck, Renaldo Block, Sarah Parker

Building High Performance Surgical Teams: Theoretical and Practical Considerations for Team Consistency

Emily A. Hildebrand (Corresponding Author, Presenting Author), Russell J. Branaghan, M. Susan Hallbeck, Renaldo C. Blocker

Team Briefings in the Gynecological Operating Room: A Cognitive Task Analysis

Allan Fong (Corresponding Author, Presenting Author), Margaret Meadors, Neil Batta, Mike Nitzberg, A. Zachary

Identifying Interruption Clusters in the Emergency Department

HC11 - Tailoring Cognitive Task Analysis Methods for Use in Healthcare

Discussion Panel – Laura Militello (Corresponding Author, Presenting Author), Cindy Dominguez, Patricia Ebright, Brian Moon, Alissa Russ (Presenting Author), Charlene Weir

Tailoring Cognitive Task Analysis (CTA) Methods for Use in Healthcare

HC12 - Clinician Workload Concerns: Physical and Cognitive

Tobias Grundgeiger (Corresponding Author, Presenting Author), Oliver Happel, Jan Grundgeiger, Norbert Roewer

Body Posture During Simulated Tracheal Intubation: Comparison of the Effects of Video Laryngoscopy and Direct Laryngoscopy

Linsey M. Steege (Corresponding Author, Presenting Author), Kalyan S. Pasupathy, Diane Drake

Relationships Between Wellness, Fatigue, and Intershift Recovery in Hospital Nurses

Alan Hedge (Corresponding Author, Presenting Author), Tamara James

Detrimental Effects of an Electronic Health Records System on Musculoskeletal Symptoms Among Health

Xinhui Zhu (Corresponding Author, Presenting Author), Ladin A. Yurteri-Kaplan, Robert E. Gutman, Andrew I. Sokol, Cheryl B. Iglesia, Amy J. Park, Victor Paquet

Postural Stress Experienced by Vaginal Surgeons

HC13 - Methodologies for Evaluating Health-Care Performance

Meera Ramachandran (Corresponding Author, Presenting Author), Joel S. Greenstein, Michael McEvoy, Matthew D. McEvoy

Using a Context-Sensitive Ranking Method to Organize Reversible Causes of Cardiac Arrest in a Digital Cognitive Aid

Joanna Abraham (Corresponding Author, Presenting Author), Thomas G. Kannampallil

Quantifying Physician Activities in Emergency Care: An Exploratory Study

Izhak Nadler (Corresponding Author, Presenting Author), Omer Globus, Liat Pessach-Gelblum, Zipora Strauss, Amitai Ziv

Using Video Recorded Neonatal Intensive Care Unit Scenarios to Test Agreement Between Clinicians' Assessments

Sudeep Hegde (Corresponding Author, Presenting Author), John Wreathall, A. Zach Hettinger, Rollin J. Fairbanks, Robert L. Wears, Ann M. Bisantz

Toward the Development of a Resilience Engineering Tool to Improve Patient Safety: The RETIPS Approach

David P. Azari (Presenting Author), Carla M. Pugh, Shlomi Laufer, Elaine Cohen, Calvin Kwan, Chia-Hsiung (Eric) Chen, Thomas Y. Yen, Yu Hen Hu, Rebecca D. Ray, Robert G. Radwin (Corresponding Author)

Evaluation of Hands-On Clinical Exam Performance Using Marker-Less Video Tracking

Jointly Sponsored Sessions

A3 - Managing Illness: Individual and System-Level Factors

Sarah Kianfar, Pascale Carayon, Ann Schoofs Hund), Peter Hoonakker

Understanding Care Coordination for Chronically Ill Patients

Jamie Ng, Seung Ki Moon, Tazoon Park, Wah-Pheow Tan

Intentional and Unintentional Medication Nonadherence – Comparing Older and Younger Adults

T. Armstrong, C. Cao, S. Hallbeck, R. Radwin, D. Rempel

Ergonomic Aspects of Clinical and Surgical Procedures

General Session about Health Care - Discussion Panel

Poornima Madhavan, Nancy Cooke, Pascale Carayon, Sara Czaja, Bill Marras, Kate McPhaul

National Research Council Board on Human-Systems Integration: Applying Human-Systems Integration to Safe Patient Handling and Mobility

Announcements and Member News

Reports relevant to HFES

Abstract and Submission deadlines

2015 Symposium on Human Factors and Ergonomics in Health Care: Improving the Outcomes

Baltimore, Maryland

April 26–29, 2015

Important dates

Lecture presentations deadline - Monday, October 20, 2014

Poster presentations deadline - Monday, November 17, 2014

<https://www.hfes.org/Web/HFESMeetings/2015/Hscallforproposals.html>

9th International Conference on Pervasive Computing Technologies for Healthcare

Istanbul, Turkey

May 20–23, 2015

Important dates

Workshops proposal deadline

19 December 2014

Full Paper Submission deadline

19 December 2014

<http://pervasivehealth.org/2015/show/home>

Upcoming Conferences

AMIA 2014 Annual Symposium Chicago, Illinois

November 15 - 19, 2014

<http://www.amia.org/amia2014>

The AMIA Annual Symposium is the world's most comprehensive annual meeting on biomedical and health informatics. The Annual Symposium provides a wide range of formats for education and discussion. Papers and posters present peer-reviewed state-of-the-art scientific and technical work.

Workshop on Interactive Systems in Healthcare (WISH) 2014

Co-located with the American Medical Informatics Association (AMIA) Annual Symposium on November 15, 2014 in Washington, DC.

At WISH 2014, researchers and practitioners with interests in health information technology will come together to promote deeper and more profound connections among the biomedical informatics, human-computer interaction, medical sociology and anthropology communities.

**This is a publication of the Health Care
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Ergonomics Society.**
