



Maryland Patient Safety Center presents:
Re-engineering Patient Safety – Application of human factors and safety systems principles

Thursday, November 7, 2019 • 8:30 am – 12:00 pm

Light breakfast and refreshments will be available.

Maryland Patient Safety Center
Building I,
6820 Deerpath Road, Elkridge, Maryland 21075
Registration and Continental Breakfast begin at 8:00 am.
Training will begin at 8:30 am.

Program Overview

Despite considerable investment and advances in patient safety, there are still hundreds of thousands of patients being harmed by medical error each year. A different way of thinking is required to ‘move the needle’ on patient safety. Human factors approaches underpin current patient safety and quality improvement science, offering an integrated, evidenced, and coherent approach to patient safety, quality improvement, and clinical excellence. Human factors rests on a systems approach—one must examine the human interactions and inter-dependencies within a larger system in order to optimize performance. The system-wide adoption of these concepts offers a unique opportunity to support cultural change and empower clinicians to put patient safety and clinical excellence at the center of their work.

Human factors and systems safety focus on re-designing work as opposed to re-designing the human who does the work. Incorporating a human factors and systems safety approach allows for the development and integration of knowledge, skills and attitudes that facilitate successful performance at the front lines of care. This approach will help identify safe, sustainable and resilient solutions.

The application of innovative human factors approaches supports the much needed transformation of healthcare from reactive and less effective or non-sustainable solutions to proactive, evidence-based, effective and sustainable person-centered safety mitigations. Effective solutions must satisfy a number of constraints arising from clinical needs, social interactions, cognitive limitations, and healthcare policy. Such solutions require multidisciplinary teams to accelerate discovery, address the complexity of challenging health problems, improve patient outcomes, and decrease costs. The solutions must be designed with appropriate

consideration of the actual work environment, and must compensate for known human abilities, limitations, and baseline human error rates while considering the demands of the complex healthcare environment.

At this workshop, healthcare leaders will learn how to apply human factors and systems safety concepts to understand true hazards in their organizations while fostering a culture of safety. The faculty includes a human factors engineer and a healthcare safety leader who have vast experience studying risk and implementing innovative change within healthcare organizations.

Learning Objectives

- Describe how the work-system elements (e.g. people, organization, equipment) interact to create safe/unsafe conditions.
- Define system-engineering approaches and describe how these concepts integrate into applied safety efforts.
- Apply human factors engineering concepts to identify system hazards and design/develop solutions for safer care delivery systems.
- Describe the importance of usable technology and devices, and apply device usability into safety programs to select and safely implement technology and devices in your healthcare environment.
- Design system solutions to support the way humans work, minimize the opportunity for error, and mitigate the impact of error once it occurs.

About the Speakers

Melanie Powell, MD, MPH

Associate Medical Director for Quality & Safety,
MedStar Health

Zoe Pruitt, MA

Human Factors Specialist,
MedStar Health National Center for Human Factors in Healthcare

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Melanie Powell, MD/MPH, is an Associate Medical Director for Quality and Safety at MedStar Health and she recently completed a Quality and Safety Fellowship at the MedStar Institute for Quality and Safety. During this time, Dr. Powell focused on transforming the culture

of patient safety event reporting among medical residents, standardizing inpatient education provided to patients with diabetes to reduce readmissions, and improving risk stratification for surgical prophylaxis to prevent venous thromboembolism. In addition, Dr. Powell holds a Master of Public Health degree with a concentration in health policy and management from Drexel University School of Public Health. Her interests include harm reduction through patient safety initiatives, improving diagnosis through patient and family engagement, primary care practice transformation, and resident education in quality and safety.



Zoe Pruitt, MA is a human factors specialist at the MedStar Health National Center for Human Factors in Healthcare. In this role, Zoe investigates the interaction of humans and technology through applied research. She participates as a human factors and usability expert in research

that aims to predict human errors that lead to patient harm and design systems to mitigate these risks and improve patient safety.

Her expertise in human factors is also leveraged for safety event reviews where she applies her understanding of human cognition to investigate why errors occur in healthcare. She received her bachelor's in Brain & Cognitive Science at the University of Rochester and she earned her master's in Human Factors and Applied Cognition at George Mason University.

Program Fee

Non-members: \$99

Maryland Patient Safety Center members: Free

To register: www.MarylandPatientSafety.org

Questions regarding this program: Contact Lorie Catsos at 410-540-9210 or at lcatsos@marylandpatientsafety.org

For any questions regarding the Maryland Patient Safety Center, please call 410-540-9210