

Many organizations repeatedly experience undesired outcomes in spite of previous efforts where actions were implemented whose express purpose was to prevent these events. There are multiple reasons that mitigating interventions fail to achieve sustained or even fleeting success. These obstacles to success include such factors as: failure to appropriately and transparently prioritize the issues and interventions under consideration; lack of a thorough systems-based investigation that identifies the variety of contributing factors as opposed to just the proximate cause; interventions that don't strategically or tactically address the critical underlying contributing factors; lack of clarity and accountability for the implementation of countermeasures; and failure to accurately monitor the proposed interventions to determine if they were successful or how they may need to be modified.

This presentation will discuss approaches to deal with these common obstacles through the use of case studies.

**Dr. James P. Bagian** is the Director of the Center for Healthcare Engineering and Patient Safety and is a Professor in the Department of Anesthesiology in the Medical School and in the Department of Industrial and Operations Engineering in the College of Engineering at the University of Michigan. Previously, he served as the first Director of the VA National Center for Patient Safety (NCPS) and the first Chief Patient Safety Officer for the Department of Veterans Affairs from 1999 to 2010 where he developed numerous patient safety related tools and programs that have been adopted nationally and internationally. Dr. Bagian served as a NASA astronaut and is a veteran of two Space Shuttle missions and was an investigator of both the Challenger and Columbia Space Shuttle mishaps. Presently, he is applying systems engineering approaches to the analysis of medical adverse events and the development and implementation of systems-based corrective actions that will enhance patient safety primarily through preventive means. He received his B.S. in mechanical engineering from Drexel University and his M.D. from Jefferson Medical College at Thomas Jefferson University. He is a Fellow of the Aerospace Medical Association, a member of the National Academy of Engineering, the Institute of Medicine, and has received numerous awards for his work in the field of patient safety and aerospace medicine.

The seminar series "Providing Better Healthcare through Systems Engineering" is presented by the U-M Center for Healthcare Engineering and Patient Safety: Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach. For additional information and to be added to the weekly e-mail for the series, please contact <u>genehkim@umich.edu</u>

**Please note on location: 1123 LBME** is room 1123 in the Ann & Robert H. Lurie Biomedical Engineering Building (LBME). Street address is 1101 Beal Avenue, link to map and directions: http://www.bme.umich.edu/about/directions.php.

