

Hundreds of thousands of patients worldwide are inadvertently harmed every year while undergoing medical care. The majority of these adverse outcomes are caused by failures of communication on many levels. Data from The Joint Commission, the Veterans Health Administration (VA), and many other sources show that communication failure contributes to approximately 70% of adverse events. Many techniques and approaches, often adapted from other domains, have been employed in the hope of mitigating communication related harm to patients. The Joint Commission instituted National Patient Safety goals that were intended to mitigate communication based hazards beginning in 2002. In addition to these efforts, additional focus has been given to improving communication and, more broadly, teamwork in the operating room environment. Despite the promising results associated with this work that describe operating room related improvements in teamwork, patient safety culture, communication, workforce satisfaction and reductions in patient mortality, widespread application of these techniques has not occurred. As with change in any field, identifying the unmet need and potential solution is a necessary first step but the step that is often far more challenging is understanding how to implement the desired change in an effective manner so that it is sustainable. This presentation will describe the contextual background, assessment of professional and cultural "readiness" to change, and offer a more granular description of how the planning and implementation of Medical Team Training was accomplished in over 100 medical facilities of the Veterans Health Administration (VA) system that resulted in an observed 18% reduction in surgical mortality as well as the current efforts to implement these techniques in the University of Michigan Health System.

Dr. James P. Bagian has extensive experience in the fields of human factors, aviation, and patient safety. Dr. 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 and founding director of the VA National Center for Patient Safety and as the VA's first Chief Patient Safety Officer where he developed numerous patient safety related tools and programs that have been adopted nationally and internationally. A NASA astronaut for over 15 years, he is a veteran of two Space Shuttle missions including as the lead mission specialist for the first dedicated Life Sciences Spacelab mission. Following the 1986 Challenger space-shuttle explosion he dove and supervised the capsule's recovery from the ocean floor and was one of the leaders of the development of the Space Shuttle Escape System. He also served as the Chief Flight Surgeon and Medical Consultant for the Space Shuttle Columbia Accident Investigation Board. Dr. Bagian holds a B.S. degree in mechanical engineering from Drexel University and a doctorate in medicine from 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.

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