



Case Study: Project ER One - Washington, DC - Emergency Preparedness

Visualizing the Problem:

Project ER One (www.er1.org) is a federally-funded initiative, developed in conjunction with Washington Hospital Center in Washington, DC to design an emergency department facility and the necessary processes capable of handling sudden patient volume increases due to terrorist attack or natural disaster. Through active guidance from Hospital Center Physicians Mark Smith MD, FACEP, Craig F. Feied MD, FACEP, FAAEM, and Michael P. Pietrzak MD, FACEP, and the work of architects, Pickard Chilton, Frank Zilm, and HKS Inc., a unique spatial design was developed. ProModel Healthcare Solutions was retained to develop and assess the required processes to make the facility productive, and to validate the overall functionality of the design.

Analyzing the Situation:

Using our extensive expertise in hospital emergency services process review, ProModel Healthcare Solutions analyzed the efficacy of the facility design, developed optimal processes and staff utilization patterns to enhance patient safety and increase patient flow well beyond initial expectations. Using the ER One model, ProModel and ER One staff were able to test various disaster and patient care process scenarios showing an extensive variety of patient types and volumes, demonstrate throughput and bottlenecks, staffing requirements, wait times and possible morbidity rates, and test alternative processes and procedures for patient flow and processing.

"I was very pleased. The simulation certainly enhanced Project ER One. ProModel's team and approach ensured our work was complete, meaningful and able to contribute to other large emergency services providers facing related issues. We now know we have the capacity for optimal medical management."



- Mark Smith, M.D, FACEP
Chair, Emergency Medicine
Washington Hospital Center
Principal, Project ER One

Optimizing the Solution:

The results of Project ER One include, but are not limited to, revolutionary design concepts, patient processing concepts, and unique insight into mass casualty situations. Because ProModel Healthcare Solutions was able to create a highly flexible and transferable simulation model, the recently launched ER One Institute, led by Dr. Pietrzak, anticipates using simulation in the future as ER One concepts of space and process design are used by facilities around the world to prepare for worst case scenarios. Tampa General Hospital, Tampa, FL has already contracted with the ER One Institute, ProModel Healthcare Solutions, and Frank Zilm, to assist in current process improvements, future process design, and the layout of its new ED.