

## Simulation of Healthcare Systems

*John W. Fowler, Adrian Ramirez Nafarrate*

Arizona State University

School of Computing, Informatics and Decision Systems Engineering

699 S. Mill Avenue

Tempe, AZ 85281

john.fowler@asu.edu

adrian.ramirez@asu.edu

Modern industrial engineering, systems engineering, operations management, and operations research methods hold significant promise for healthcare systems and quality of care research. Among the most promising methods are queuing theory, simulation, and optimization. This presentation will focus on the use of simulation to analyze and improve health care systems. We will discuss some of the most common uses of simulation in healthcare and will point out some unique challenges in applying simulation to these important problems.