

Simulation Modeling in Healthcare

Adopt innovation in your organization using simulation modeling software, because testing a proposed change is costly, too risky to patient care & safety, and time-consuming to execute in real life. Our decision support simulation tool helps healthcare professionals to deliver improved service and performance through analysis of their processes and patient care flows.

Simulation Modeling determines the optimal change or set of changes before ever touching or modifying the actual system.

Efficiency Engineers' experts imitate real-world processes in an environment where they can be accelerated, studied, adjusted and analyzed to achieve desired results or improvements. Simulations handle the complexities of real-world processes that simpler mathematical models cannot accommodate by incorporating random number generation to capture the natural variations of a process within the confines of probability distributions.

Common Issues Where Simulation Modeling Can Help

- Running out of capacity in ER/ED/inpatient beds
- Waiting times are too long in OR, ER/ED, or clinical testing
- Nurses are a scarce resource, so how are they best utilized
- Expansion – when, what, and how should this be handled
- Unit staff has ideas to improve patient contact time

Main Benefits

- Easy to use & affordable
- Improved processes & systems based on desired change or effect
- Produces in-depth knowledge of a system and how the pieces interact
- Careful analysis often reveals previously undetected problems
- Enables a team to try any and all innovative ideas without risk
- Great way to show the realistic benefits to gain buy-in for change



Efficiency Engineers' Expertise

Need assistance to get started with this concept? Due to the complex nature of simulations, the proper design and execution requires training and experience in the conceptual aspects of simulation methodology as well as intimate knowledge on the use and operation of specific simulation software.

We incorporate expertise in process analysis, optimization, probability and statistics, and computer programming in order to provide the most thorough and accurate models yielding useful and reliable results. We are also experts at managing change which is the key to implementing what your simulations reveal!

Client Testimony: "The simulation justified spending. It proved to be accurate and prevented our spending over \$100,000. We were able to reduce the bed turnaround time by over 40% by only adding one staff member."
