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Simulation Solutions
<http://www.visual8.com/>

SAMPLE HEALTHCARE APPLICATIONS

Visual8 Corp. has assisted a wide range of companies in the development and application of simulation models for facilities design, planning and scheduling and supply chain systems. The benefits from a few healthcare examples are provided below:



CAPACITY PLANNING OF CATH LAB

Our consultants have helped a large American hospital redesign its Cath Lab. The hospital was experiencing major patient delays with wait times far above the average. The model considered patients with a wide variety of care requirements and associated service times. SIMUL8 was used to determine lab requirements and predict medical and support staff utilization. Estimated **wait time reductions are on the order of 50%.**

STAFF UTILIZATION AT TRANSPLANT CENTER

John's Hopkins Comprehensive Transplant Center was challenged with increasing the number of patients it could serve given its current facilities. It was determined that meeting the demand required more efficient use of resources. SIMUL8 was used to analyze the various options and determine which increase in staff availability would provide the greatest benefit to John's Hopkins. Results included **increased patient volumes, decreased wait times, and steady staff utilization.**



ENVIRONMENTAL SERVICES OPTIMIZATION

Our consultants have assisted Washington Hospital streamline its environmental services department in order to provide a high level of service at a reduced cost. Difficulties considered wide variation in staff availability and skill level, variations in required task times, and delays in responding to dispatch instructions. The model was used to investigate different staffing levels and deployment configurations including various methods of dispatch. SIMUL8 was used to perform the analysis with no disruption to the patient. Simulation study results allowed the hospital to reduce bed turn around time by 20% as well as forecast staffing needs for various patient volumes.

INCREASED CASE LOAD AT OUT-PATIENT CLINIC

Assigned with the task of handling an increased case load at its out-patient clinics, one of the world's leading private health care organizations, BUPA, wanted to know how it admit more patients through increased resource utilization. Considering erratic arrival rates for the various patient types, bottleneck-causing situations were identified and the BUPA was able to focus on increasing the availability of the appropriate resources. Using SIMUL8, BUPA pinpointed the capital investments that would best serve its needs and **met its increased capacity requirements at minimum cost.**



For more information on any of these applications, products or our simulation services please call 1-800-878-3373

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