

Centre for Operations Excellence

Improving Patient Throughput at the BC Children's Hospital

Client Profile

www.cw.bc.ca

The BC Children's Hospital (BCCH), located in Vancouver BC, is the province's major treatment, teaching and research facility for child health, caring for patients from birth to age 16. BCCH is home to many specialized pediatric services available nowhere else in the province and is also a leading provider of diagnostic and laboratory services for B.C. Within the BC Children's Hospital, there are 9 different operating rooms used by 25 different surgeons who perform a multitude of elective and emergency procedures. Currently, approximately 60% of the over 8,000 surgeries completed each year are elective.



Business Challenge

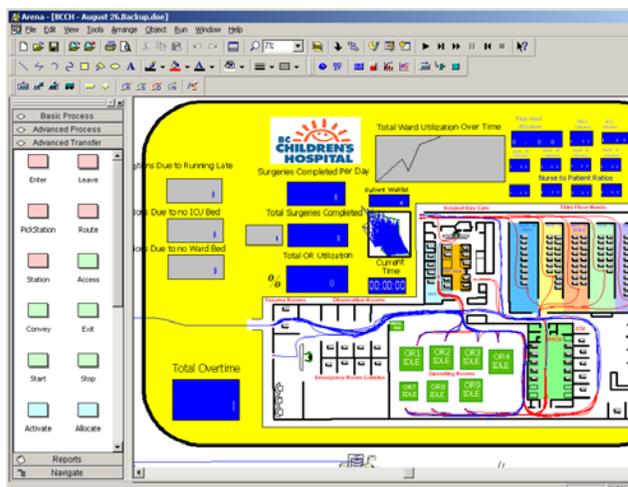
In 2003 at the BC Children's Hospital, many patients who received elective surgery waited longer than the acceptable standards set by the hospital. The Centre for Operations Excellence (COE) was asked to conduct a study to identify bottleneck processes and optimize resource allocation. The study aimed to (1) increase patient throughput at the hospital, (2) decrease patient waiting times, and (3) uphold patient safety and quality of care.

Value Delivered

In this study, the COE team provided to the client the following:

1. A 'Block Schedule Analysis Tool' and a 'Patient Flow Simulation Model' to test scenarios regarding staffing processes, patient scheduling, and hospital resources.
2. Analysis and recommendations on ten different simulation scenarios including bottleneck processes and optimal recovery bed numbers.
3. A framework to analyze further scenarios as needed.

The COE Approach



Step 1: *On-site observation and Process Mapping*

The COE team interviewed a large number of the BCCH staff and observed all key processes, mapping them into a detailed summary.

Step 2: *Data analysis and Model Construction*

The COE team analyzed over 30,000 patient records and constructed two simulation models based on the observed and recorded patient attributes.

Step 3: *Scenario Analysis*

The COE team analyzed ten different scenarios using simulation and recommended process, resource allocation, and scheduling improvements to BCCH.