



**CREATE**  
HEALTHCARE OPERATIONS & INFORMATION MANAGEMENT



Wednesday February 16<sup>th</sup>, 2011  
1:00 PM – 3:00 PM  
Bronfman Bldg., Rm. 310  
1001 Sherbrooke St. West, Montreal

**From concept to reality: Combining simulation and Lean Six Sigma to improve the design of a new critical care pavilion within a teaching Hospital in Montreal**

Marjan Yazdanpanah, Project Manager, JGH  
and

Camilo Valderrama, Master Lean Six Sigma Black Belt, GSS Inc.

**Abstract**

This presentation describes the application of simulation technology to support the Hospital design team in making critical decisions to ensure efficient operations and an optimal design for patient care. In the context of this major Hospital modernization project, the Lean Six Sigma methodology was used as a framework for process improvement and simulation project management. By applying this rigorous methodology, the project team was able to link key design questions and criteria to key performance indicators and simulation models used to conduct capacity analysis in different Hospital applications including OR, sterilization, vertical patient flow and supply chain management/receiving. A simulation case study for the implementation of the case cart system between the OR and the CSR (Central Sterilization Room) will be discussed. The benefits of this project include the definition of capacity requirements and flow management (equipment and space viewpoints) as well as highlighting at the design stage different operational risks that result in major cost savings for the Hospital.

**Beyond great simulation tools: why varied skill sets need to come together when creating useful and valid simulation models**

Jean Beaudoin ing. D.S.A., CEO Momentum Conseil  
and

Steve Paré, Director Simulation and Business Modelling, Simaco Inc.

**Abstract**

This presentation describes how application knowledge, modelling skills and advanced simulation technology were used to gain insights and validate the design of a major new hospital. Operating theatres are key components of the modern hospital. Sound simulation supported analysis ensured that the material flows between ORs and the sterilization department were both safe and unhindered.

*A light lunch will be served.*

Please RSVP by February 14<sup>th</sup> to [kristen.oliver@mcgill.ca](mailto:kristen.oliver@mcgill.ca)