APS1012 Management of Innovation – Final Team Projects, Summer 2013 (10-day class)

Quality Improvement Methods in Healthcare

In Canada, patients can wait for more than four hours before being treated in the emergency department. In 2008, $2.3 trillion was spent on healthcare in the United States. The population is also aging and living longer, therefore more healthcare will be required in coming years. As a result, hospitals need to look for innovative ways to address the problem of wait times and process inefficiencies.

Projects to innovate and improve hospital processes often fail, and the reasons are examined. Recommendations are provided on overcoming barriers related to process improvements, and ensuring the changes are sustained.

The current problems within hospitals include long wait times for services in OECD countries, high costs, and an aging population that is living longer. A brief history of process improvement within hospitals and their relation to healthcare innovation, is described. Three tools to improve resource use within hospitals have been highlighted and illustrated with case studies: Lean; queuing theory; and computer simulation modeling. The barriers to implementing process improvement projects in hospitals include:

- Lack of integrated information technology systems
- Lack of adequate data and qualified data analysts
- Hospital culture that is silo-based and hierarchical
- Union constraints
- The "Four worlds" of a hospital, with separate clinical and management control

The following recommendations are important for successful implementation of hospital process improvement projects:

- Integrating information technology systems within hospitals
- Hiring more qualified data analysts and collecting more useful data
- Training senior management on process improvement tools
- Capturing performance measures using a balanced scorecard
- Using an integrated performance-improvement approach
- Promoting inter-disciplinary learning in health facilities
- Forming process-improvement or deployment teams that involve all stakeholders
- Promoting a new culture of patient-centeredness and following a patient through their journey

Hospitals do not necessarily need to spend more money, instead we advocate they change their organizational culture from provider-centeredness to patient-centered care.