



# Blueprint for the future

## Executive Summary

St. Michael's hospital in Toronto is experiencing longer than average wait time in Ontario. They have requested our support to reduce the wait times from 12.4 hours to the provincial average of 10.9 hours.

To accomplish this goal, we identified the stakeholders and documented the "As-Is" emergency department process analysis. The primary stakeholders we identified were patients, doctors, nurses, the Ontario Government, and various benefactors.

To conduct the "As-Is" process analysis we performed various methodologies such as: The Super System Diagram, The IGOE Diagram, Supply Chain analysis, Root Cause and Waste Analysis.

From this analysis we found eight process wastes gaps. The following were the gaps that we identified through gap analysis: treatment space, electronic medical history, lack of specialist consult and inadequate access to diagnostic tools. We also identified three wastes through waste analysis. These were over processing, rework (coming back to the hospital because of the wrong treatment) and transportation waste.

Our recommendation to improve upon the identified issues are:

- I. Add rapid assessment zones
- II. Expand the Emergency Department for more space and medical devices
- III. Improve Incoming Trauma via Helicopter Process
- IV. Patient Demand Modelling and Planning

Rapid access zones (RAZ) will be an area in the ER used to treat patients that don't require a bed. These patients will be treated by nurses. By adding the RAZ it will free up hospital beds and decrease wait times. Second, the expansion the Emergency Department will add more spaces for the patients and will also reduce the load on the medical devices as they can be in various locations. Third, the trauma process layout is not suitable for those who require urgent care. Our recommendation is to move the trauma room closer to the elevator. Finally, our recommendation for Patient Demand Modelling and Planning is to link demand (patients in the ER) to the resources and to schedule doctors and nurses according to their demand. This will reduce wait times as there will be adequate staffing for the the ER during all times.

Our plan for implementation is to have a steering committee leading process improvement teams. We believe that all of the information should be clearly communicated to the stakeholders and the employees to easily implement the changes.

With the implementation of the changes, the team believes that a significant improvement in wait time will be accomplished, reducing it to less than 10.4 hours by 2020.