SHAPING BUILDINGS TO IMPROVE THE PATIENT EXPERIENCE

SEPTEMBER 29, 2014, CHES CONFERENCE

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Agenda

I. Our Region, Our Hospital, Our Vision
II. Our Journey of Realizing Excellence
III. The Road Ahead – What is Next?
Our Hospital – A Brief History

- **1998:** Civic, General, Riverside hospitals merge - TOH

- **Today:** Acute care public hospital > 1,100 beds
  Approx. 4.2 million sq ft / 3 campuses
  More than 12,000 employees
  Annual budget approx. $1B
By the Numbers

6,570
BABIES BORN

34,704
SURGICAL CASES

46,866
PATIENT ADMISSIONS

137,806
EMERGENCY VISITS
CIVIC Campus:
- Emergency Department
- Intensive Care Unit
- Mental Health Unit
- Nuclear Medicine Unit
- Neuroscience Center

Simulation Center
- Trauma/AMA
- Heart Institute
GENERAL campus:
- Critical Care Wing
- Cancer Center
- MDCU/MPU
- Stem Cell/Vision Research Inpatient Beds - 74 Beds

ED/PAU
- Clinical Research Center
- Pharmacy/Logistics/Morgue
- CRC/Vision Research
RIVERSIDE Campus:
Women’s Health Center
Diabetes Center
Kidney Diseases Center Arthritis Center
Eye Care Center
OR (Day)
Walking Wounded
Ottawa, Canada’s National Capital
Our Vision

To provide each patient with the world class care, exceptional service and compassion that we would want for our loved ones
TOH 2020

Corporate Vision

To provide each patient with the world class care, exceptional service and compassion that we would want for our loved ones

Corporate Goal

To become a top 10% performer in quality and patient safety in North America

Corporate Strategies

Better Customer Experience

Better quality at less cost

Healthier populations

Strategic Directions

Quality

People

Academics (Education and Research)

Our Community

Finance

Enablers

Technology, Engagement, Process, Capital

Core Values

Respect for the individual

Compassion

Commitment to quality

Working together
Support Services - We Impact the Patient Experience!

- People ensuring the building is comfortable for patients
- People delivering the right instruments
- People offering the right nutrition
- People preparing a safe environment
- People moving people
Our Care Environment

Patient-Centric Service Model

Care Environment
- Standard Look & Feel
- Standard Environment

Central Storage
- Accessibility & Safety
- One Call, One Service
Building the Foundations
Evidence-informed approach to decision making
Corporate focus on staff attendance and wellness
We deliver a **Value-for-Money** proposition for our taxpayers as follows:

1. Accessibility
2. Quality
3. Efficiency
- **Blue-Tie Ambassador** pilot project and corporate Rollout
- Good Night, Good Care to turn down light after 9:00 pm and offer a quiet time
- Large renovation projects to consolidate ambulatory clinics under one roof
- NRC Picker survey at post discharge to get timely feedback for improvement
- Hourly Rounding with focus on pain management and communication
Communication Strategies

- Patient Charter “Our Promise to You”
- AIDET to decrease stress and anxiety
- Patient Care “White” Board rollout to provide information to patient and families (ex. Discharge date, MD, RN, prescription and pain management)
- Hourly Rounding on patients and families to harvest feedback
- Way finding to improve signage and help patients get there on time
- You’re In My Care campaign to develop staff pride and accountability
Staff Engagement

- Annual Compass Awards for Physicians and Staff
- Hewitt Staff Engagement Survey
- Annual Performance Appraisal and Quarterly Rounding on Staff
- Rollout of Picnic tables, internet café and secured bikes storage as per staff
- Large expenditures on Minor renovations from staff feedback
- Offer great healthcare benefits for staff and their families
Our Mission: “To provide a healthy environment for patients, staff and our neighbouring community through cost-effective sustainable initiatives”

Our Values: Awareness and Education Resource Optimization Responsibility Commitment Innovation Co-operation
Green Master Plan:

• Objectives
  – Track sustainable data
    • Water & energy consumption
    • Waste and recycling totals
    • Communication & awareness through surveys
  – Develop a sustainable construction policy document for consultants, contractors and in-house staff to follow
  – Invest in sustainable Environmental Services and Energy projects based on feasibility and organization’s vision
  – Increase employee awareness and participation in sustainable practices through the implementation of a communication plan
Green Master Plan:

- Feasibility studies
- Investment in sustainable projects
- Monitoring savings related to green projects
- Annual reports presented to Senior Management

(Based on NRC’s Dollars to Sense Energy Master Plan Workshop)
Fostering a Green Culture

• Practice Greenhealth
  – Organization to support sustainable practices in a hospital environment (both construction and operations)
  – Over 100 North American facilities are members, TOH is the 6th Canadian member
  – TOH will use the Green Guide for Health Care as well as LEED Rating systems to guide our sustainable initiatives
Environmental Awards

2005 HealthAchieve Energy Conservation

2010
Association of Energy Engineers
HealthAchieve Overall Leadership

2012
CCHL Energy & Environmental Stewardship Award
HealthAchieve Water Conservation and Protection Award

2010 to 2014
Practice Greenhealth Partner for Change Award x 3 sites
(in 2014 the Riverside won a higher level Emerald award for its outpatient category)
Waste Diversion (% by weight)

### 2009
- Solid Waste: 71%
- Recycling: 15%
- Medical Waste (yellow): 8%
- Hazardous Waste: 3%
- Medical Waste (red): 3%
- Composting: 0%

### 2014
- Solid Waste: 68%*
- Recycling: 20%
- Medical Waste (yellow): 6%
- Hazardous Waste: 2%
- Medical Waste (red): 2%
- Composting: 2%

*Projected increase in construction waste recycling will reduce solid waste to 52%*
Waste Diversion

- Electronics recycling program
- Used cooking oil recycling by Maple Leaf Foods
- On-site fluorescent lamp recycling
- Wooden skid reuse at the loading dock
- Battery Recycling and mercury elimination
- Surplus supply donation program (sent overseas to hospitals in needs)
Staff Awareness

• Increasing the awareness of staff to save energy was part of the Honeywell project.
Energy & Water Conservation:

Savings since 1991:
23 million kWh of energy (6,000 homes for one year)
3 million m³ of gas (1,200 homes for one year)
3.4 million m³ of water (93 Olympic swimming pools)
121,000 tons CO² (emissions from 25,000 cars)
$28 million utilities savings
Water Conservation Projects:

- Cooling Tower Upgrades
- Dual Flush Toilets
- Medical gas upgrades
- Convert equipment from water cooled to air cooled
- Low flow fixtures and equipment
$$ Incentives

• Over $2 million total utility incentives since 2001
Link to Service Excellence

• Baseline the best possible environment for patients, staff and visitors
• Real time knowledge of system conditions and performance
• Proactive dispatch of pending environmental issues
• Instant messaging via 24/7 call center and iPhones
• Instant data acquisition EBI & TMA to iPhones
• Instant acknowledgement and work order closure using iPhones
Projects to reduce further

- 25 watt bulbs
- Sensors (1000)
- Garage lighting
- Elevator room cooling TSSA mandate
Total Energy Cost/unit area
Equipment to be installed to AHU to inspect for Energy Efficiency:

1. Install 3 positioners for 3 dampers to confirm min. O/A and damper opening %
2. Install 2-3 new Temp. sensors after pre-heat, cooling and re-heat coil to check during the PM for any leaking control valves for heating or cooling
3. Convert Existing Magnohelic gauges for static pressure across the filters to TSI pressure sensors
4. MEX – 210 smart AHU controller to be installed at the AHU to show temperatures and pressure across AHU filters, coils, etc. Cost is approx. $600 and is wired. The same function can be done through the Ebi but the cost is higher
Energy Efficiency Measures:

1. Cooling Mode: engineer to check if % opening of O/A damper is right, dampers not leaking, heating control valve not leaking
2. Heating Mode: engineer to check if the % opening of O/A damper is right, dampers not leaking, cooling control valve not leaking.
3. Engineer to check temperatures and set points using Ebi or MEX-210 during cooling and heating modes. Economizer mode is working properly
4. Confirm VFD is working properly and return fan is following the supply fan
5. Check occupancy schedules and if possible optimize it
Control Strategy tips:

1. Select different space thermostat setting as follows: Winter 72 F Summer 74 F

2. Actuators for heating and cooling valves to be retrofitted to receive separate signals from PI control to avoid overlap functioning and dead band zone between cooling and heating.
Deficiencies in Energy Efficiency:

1. Poor economizer cycle operation
2. Excessive use of Outside Air
4. Poor control of Heating and cooling coils including control valves leakage that result in simultaneous cooling and heating
The Road Ahead
Master Plan 2020/21

Cost Overview

Total = $3.65 B

Timeline - Three Major Phases (2016-2027)

• Phase 1 – 2016-2020
  – Develop New Civic Campus
  – Develop Women’s/Newborn Center (General Campus)
  – Develop Clinic/Research Building (General Campus)

• Phase 2- 2020-2023
  – Expand Riverside Campus
  – Develop New Rehab Center

• Phase 3 – 2022-2027
  – Develop New Inpatient tower at General Campus
Scenario 4 – Future South Civic Site (View 1)
Questions?

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