

# CORPORATE PATIENT FLOW PERFORMANCE



Leading with Innovation  
Serving with Compassion

**ST. MICHAEL'S HOSPITAL**

*A teaching hospital affiliated with the University of Toronto*



In *Corporate Patient Flow Performance* St. Michael's Hospital (SMH) describes the impact of an internal change management and performance office catalyzing improvements in organizational patient access/flow. There are three objectives: 1) to create the conditions for staff to make the best decisions for flow; 2) to build organizational capacity, facilitating rapid process improvements using common methodology; 3) to monitor and manage performance through transparent feedback loops. Governance comprising senior management and clinical leadership was struck alongside staff engagement strategies, change management tools, a daily bed management plan with predictive indicators, escalation protocols, and broadly shared metrics and case reviews. Results have yielded a five-fold decrease in ED volumes waiting for greater than 24 hours, 43.4% improvement in admitted ED Length of Stay, and 13.8% improvement in ambulance offload time. Adverse outcomes on patient satisfaction, quality and other indicators have not been seen. The results are encouraging at this early stage.

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<b>Purpose:</b>	To develop and implement infrastructure and a strategy to optimize patient access and flow with measurable results on a hospital-wide basis.
<b>Context:</b>	In St. Michael's Hospital (SMH), Corporate Patient Flow Performance was instituted in September 2009 as an internal change management and performance office dedicated to catalyzing improvements in organizational patient access/flow. The catalyst was the recent Ontario MOHLTC Emergency Department (ED) Wait Time Strategy mandating hospitals to meet ED wait time targets within a defined time period. Though the targets were ED focused, ED wait times are a proxy for system-wide patient transition processes and reflective of a corporate-wide shared accountability. This is because ED wait times comprise sub-wait time categories: 1) time of triage to time of consult, the performance of which is largely within the ED's accountability; 2) time of consult to disposition decision/decision to admit, primarily the accountability of the medical consulting services; and 3) time from decision to admit to inpatient unit/OR, primarily the accountability of the unit staff, environmental services, patient transport and others.

	Up until then, optimizing patient access/ flow was based on investments in projects and centralized roles such as Patient Flow Managers and a centralized bed cleaning team without any measurable impact. The paradigm shift to making access/flow a corporate change management strategy is now manifested in the central leadership and organizational support within a small multidisciplinary team dedicated to three objectives: 1) to create the conditions for front-line staff to make the best decisions possible for patient transitions; 2) to build organizational capacity, facilitating rapid process improvement cycles using a common methodology; 3) to monitor and manage performance through routine, transparent performance feedback loops.
<b>Resources:</b>	Six FTEs (Director, 2 Patient Flow Redesign Specialists, Flow Performance Coordinator, Corporate Case Manager/Peer-to-Peer Change Agent, Administrative Coordinator) + Medical Lead X1.5 days/week + corporate support from Information Services/Decision Support = approximately \$750,000 for human resource investment and office operational expenses (not including organizational capacity and project spread support)
<b>Source of Resource:</b>	Ontario MOHLTC ED Pay for Results Program and hospital global funds
<b>Population Group:</b>	Acute care medical and surgical population served by a large urban teaching hospital.
<b>Patient Flow Entry End Points:</b>	The patient's journey and experience from the time they arrive at St. Michael's Hospital to the time they depart is the scope for this particular initiative. However, many of the projects involve collaborative discussions with our key partners, such as CCAC and rehabilitation/complex continuing care facilities, to target synergies and forums for knowledge exchange to streamline the patient transitions across a broader care continuum.
<b>Description/ Approach:</b>	<p>The CPFPP team serve as a catalytic change management and performance unit with a focus on measurably improving key corporate-wide metrics of access and flow. A corporate Patient Flow Advisory Council was struck, comprising of 50 % medical leadership and senior management and clinical leadership, including the Vice Presidents of Planning, Information Management and Finance. The Council is sponsored by the EVP and CMO, co-chaired by the Director and Medical Lead of CPFPP, and report directly to Senior Management and the Executive team. The Council oversees the development and implementation of two streams of initiatives aimed at improving access and flow: 1) corporate-wide initiatives with a focus on enabling policies, protocols and structures; 2) rapid process improvement Action Groups, comprising multidisciplinary, cross-service front-line staff, unified on a common continuous improvement methodology and workplan. Foundational principles formed the platform on which strategies and tactics were developed:</p> <ol style="list-style-type: none"> <li>1) Access and flow is a key element of patient quality and the patient experience and a natural expression of what we do as a hospital; we need to improve in spite of provincial mandate, not <i>just because</i> of the provincial mandate</li> <li>2) Ensure value-added activity based on a <i>patient's perspective</i> versus conventional workflows</li> <li>3) Perfection through iteration and learning – need to move from concept to action quickly and learn</li> <li>4) Complex doesn't mean complicated</li> <li>5) Facilitating change through organizational learning, innovation, synergies at all levels (<i>"collaboration and engagement"</i> vs. <i>"cooperation"</i>)</li> <li>6) Clearing the path for staff to do their job, enabling and empowering them to make the best decisions</li> <li>7) Embedding shared accountability without hierarchy</li> <li>8) Building on existing structures, communication channels and natural synergies</li> <li>9) Elevating best practices to a corporate standard</li> </ol> <p>It is vital that our approach was balanced across both medical and surgical flows, given our position as a system resource, such that improving one type of flow was not done at the expense of the other.</p>

<p><b>Tools and Tactics:</b></p>	<ol style="list-style-type: none"> <li>1) <i>Unified performance targets at unit, service and program levels combined with transparent performance feedback loops</i> – weekly, bi-weekly and monthly updates to meaningful metrics on an Intranet site; same metrics also included in quarterly performance reviews to Executive team</li> <li>2) <i>Structured two-way feedback mechanisms</i> – formal and informal forums facilitated by CPFP members to ensure staff engagement in not only issue identification but also solution generation; learnings routinely logged and categorized into themes that can then be addressed through corporate leadership forums and/or Action Groups (see #9 below)</li> <li>3) <i>Corporate communication strategy</i> – routine updates through multiple communication channels and surveys to ensure two-way feedback with emphasis on profiling and celebrating front-line activities</li> <li>4) <i>Daily Bed Management Plan</i> – twice daily updated, on-line bed management report inclusive of predictive indicators of expected discharges the next day and “at capacity” or “near capacity” status</li> <li>5) <i>Cluster Bed Management model</i> – structured cross-unit and cross-service teams of clinical leader managers, case managers, Patient Registration/Admitting staff and/or charge nurses providing a planning and support network for making decisions about daily patient transitions across the hospital</li> <li>6) <i>Escalation Policies and Operationalized Protocols</i> – high level decision-making algorithms to standardize parameters within which decisions are made about patient transitions across the hospital</li> <li>7) <i>Patient Tracer Reviews</i> – broadly shared individual case studies of patients identified as having waited excessively to access a bed on an inpatient unit from the ED, triggered by a time threshold and subsequent escalation process; a template is used with the focus on lessons learned and improvement opportunities which feed into subsequent process improvement activities</li> <li>8) <i>Front-Line Peer-to-Peer Coaching/ Change Support 6 out of 7 days to smooth rapid change</i>– CPFP team members with front-line clinical expertise serving as a bridge to support front-line learning and two-way feedback communication channels during rapid change; tactics include orientation to how tools outlined can be most effectively used and applied in patient-based scenarios</li> <li>9) <i>Rapid Process Improvement Action Groups</i> – five multidisciplinary front-line action groups, each chaired by a Clinical Program Director and facilitated by a CPFP member, unified on a common methodological framework (see #10 below) and workplan with activities prioritized using a “high/low impact – long/short-term” grid       <ol style="list-style-type: none"> <li>a. <i>Optimizing Discharge Processes:</i> i) communication whiteboards; ii) night before discharge order sets</li> <li>b. <i>Optimizing Length of Stay:</i> i) CCAC referral streamlining; ii) discharge checklist/guidelines</li> <li>c. <i>Optimizing Admissions and Inter-Service Consultations:</i> i) standardizing wait lists for inpatient surgical scheduling; ii) unnecessary surgical admission avoidance strategies</li> <li>d. <i>Optimizing ED-General Medicine Flow:</i> i) standardizing admission and transfer criteria for “step-up” beds; ii) prioritization protocols for investigations work-up</li> <li>e. <i>Optimizing ED-Neurosurgery Flow:</i> streamlining direct admissions to appropriate unit</li> </ol> </li> <li>10) <i>DMAIC (define problem – measure current impact – analyze using current state process mapping technique- improve by process mapping future state and implementing using pilot – control via metrics and tactics to hard-wire improvements- evaluate and repeat using lessons learned)</i> – the method was developed embedding the best LEAN, Six-Sigma and Plan-Do-Study-Act methods offer</li> </ol>
<p><b>Measurement Approach:</b></p>	<p><i>See Appendices.</i></p>

<b>Impact/ Evaluation:</b>	<i>See Appendices.</i>
<b>Observation/ Discussion:</b>	<i>See below regarding critical success factors/lessons.</i>
<b>Critical Success Factors/ Lessons:</b>	<ul style="list-style-type: none"> <li>• Executive leadership endorsement as a corporate priority founded in accountability mechanisms</li> <li>• Keeping accountability, ownership and empowerment close to the front-line staff who have the expertise in making the best decisions about patient transitions within the hospital</li> <li>• Transparent and routine performance measures and accountability mechanisms</li> <li>• Alignment with other corporate and provincial priorities such as quality and safety, information management, knowledge translation such that activities are leveraged for more than one agenda</li> <li>• Improving access and flow is not a project; it is a natural expression of hospital core business and needs to be positioned as such for sustainability</li> <li>• Improving access/flow is less tied to physical capacity as it is to process and cultural transformation</li> <li>• Success in rapid process improvement cycles is less tied to orthodox prescription to one methodology as it is to the strength of staff engagement, facilitation and using a common approach that embeds the best elements that various methodologies have to offer</li> <li>• Spending time upfront in identification of root causes and “tipping point” issues will allow for early wins and greater stakeholder buy-in down the road (i.e. spend more time on “fixing the leaky roof” to make transformational gains upfront versus “wiping the wet floor” to yield marginal results)</li> <li>• Dedicated but small team to serve as catalytic agents</li> </ul>
<b>Limiting Factors:</b>	<ul style="list-style-type: none"> <li>• The hardest element of change is not adoption of new practices and mindsets; it’s compelling people to forget the old ones!</li> <li>• Maintaining momentum for long term sustainability</li> </ul>

**APPENDIX A: Ontario Ministry of Health and Long Term Care ED Pay for Results Indicators; Quarter 3 2008/2009 Results**

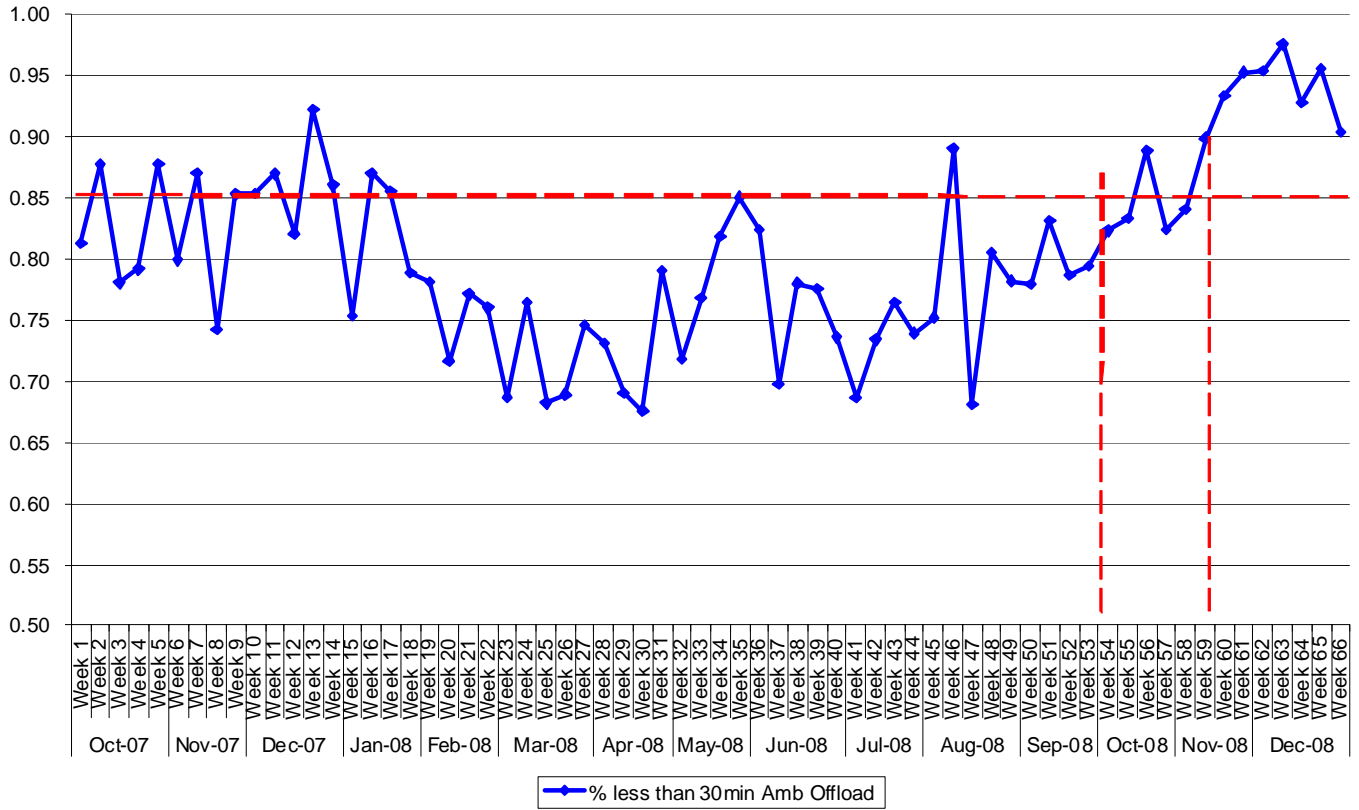
<b>Key Performance Metric</b>	<b>Target</b>	<b>Baseline April 2008</b> <i>*source: 2007/08 NACRS database; recently confirmed by TC LHIN 13/02/09 unless otherwise noted</i>	<b>To Date as of Q3 2008/2009</b> <i>* source: EDIS – note slight variations exist due to the more timely data available in EDIS vs NACRS with 4 month data time lag</i>	<b>% Change From Baseline</b>	
Greater than 24 h ED Length of Stay Volumes	< 2%	6.5%	1.5%	5.0% (on a weekly basis, highest average patient volumes waiting for 24 h+ dropped from 81 to 9)	
% High Acuity ED Volumes Within MOHLTC Wait Time Standards (CTAS 1, 2: 8 hours + CTAS 3: 6 hours)	Improvement by 5%	62.6%	69.1%	6.5%	
% Low Acuity ED Volumes Within MOHLTC Wait Time Standards (CTAS 4-5: 4 hours)	Improvement over Baseline	56.3%	73.1%	16.8%	
Average ED LOS  (internal metric)	Admitted	Improvement over Baseline	22.6 hours	12.8 hours * source: NACRS	43.4 % (9.8 hours)
	Non-Admitted	Improvement over Baseline	6.2 hours	4.4 hours * source: NACRS	29.0% (1.8 hours)
	All	Improvement over Baseline	8.5 hours	5.6 hours * source: NACRS	34.1 % (2.9 hours)
% Ambulance Offload (internal metric)	85% Less Than 30 Mins	76.2%  <i>*baseline based on 2008/09 Q1EDIS database</i>	90.0%	13.8%	

**\*Additional Notes:**

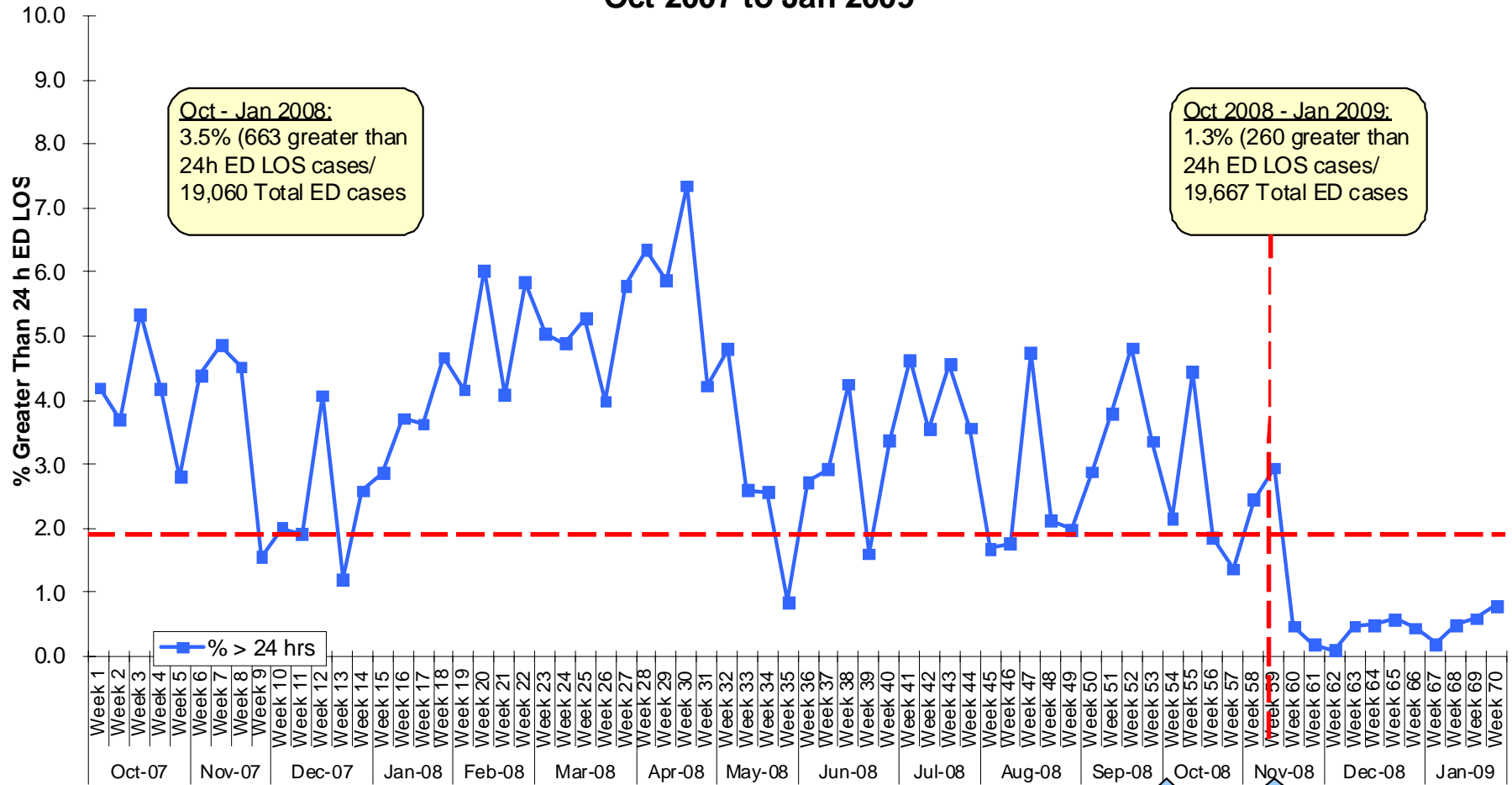
ED patient satisfaction has been sustained/marginally improved from Q1/2 to Q3. On a preliminary basis, no adverse impact on key quality of care indicators has been seen. These results have also not yielded increased surgical cancellations and appear to be less sensitive to fluctuations in volumes, physical capacity changes and rising ALC #s than to our targeted change management strategy and process improvements.

## APPENDIX B: Ambulance Offload Times by Week October 2007 – December 2008

% less than 30min Ambulance Offload by Week- Oct 2007 to Dec 2008 (Goal: 85%)



## APPENDIX C: Weekly Percentage Greater Than 24 hr ED LOS of ED Volumes - Oct 2007 to Jan 2009



Note: Weekly Absolute # Range  
# ED cases = 995 to 1187  
# > 24H ED LOS = 1 to 81

↑  
**CPFP  
Team  
started**

↑  
**Daily  
Bed  
Tool**

**APPENDIX D: Percentage ED volumes waiting for 20 and 24 hours vs Percentage Surgical Cancellations**

**Percentage 20 and 24 Hour Breaches vs. Percentage Surgical Cancellation - Oct 2007 to Dec 2008**

