Update on the Stroke Capacity Planning Project

January 09, 2015
Today’s discussion

**Objective**: Provide an update on the Ministry of Health and Long-Term Care Stroke Capacity Planning and alignment with QBP implementation

- Define ‘health system capacity planning’
- Provide an overview of stroke capacity planning project and alignment with QBP
- Provide an overview of progress to date
Capacity Planning
Health System Capacity Planning

**Health system capacity:** The extent to which the system delivers care within given structures and processes. The capacity is adequate when the system performance is *within the stated policy objectives* and is *sustainable*.

**Health system capacity planning:** Forecasting the *impacts* of policies, demographics, and expenditures on health system capacity using qualitative and quantitative approaches to support policy development and implementation.
Stroke Capacity Planning Project
Stroke Capacity Planning Project: Alignment with Stroke QBP

Project Purpose:

1. The aim of this project is to provide advice to the Ministry of Health and Long-Term Care on policy approaches and strategies to create a long-term plan to ensure Ontarians receive time-critical stroke treatment, and the best standard of evidence-based care as outlined in the Quality Based Procedures Clinical Handbook for Stroke.

2. The work of the project will focus on the implementation of hospital based stroke care (Emergency Department, Acute Care, and Inpatient Rehabilitation) as outlined in the Quality Based Procedures Clinical Handbook for Stroke.

3. The forecasting and analysis generated for this project will be incorporated in policy/investment decisions and disseminated to the Local Health Integration Networks and sector partners (as appropriate) to support capacity planning at the regional and organizational level as the ministry moves forward with the implementation of Health System Funding Reform through the implementation of the Quality Based Procedures Clinical Handbook for Stroke.
Project Scope

- Initially, the project focus was on the implementation of hospital based stroke care (Acute Care, ED, and Inpatient Rehabilitation) as outlined in the QBP Clinical Handbook for Stroke.
- After expert consultation, it was determined includes all Emergency Room/Hospital stroke cases will be included in analysis.
- QBP Cases represent 85% of stroke cases included in capacity planning work.

<table>
<thead>
<tr>
<th>Capacity Planning by Stroke Type</th>
<th>Percent</th>
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<tbody>
<tr>
<td>QBP</td>
<td>85.3</td>
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<tr>
<td>Surgical</td>
<td>3.4</td>
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<tr>
<td>Post-Admit</td>
<td>6.7</td>
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<tr>
<td>Palliative</td>
<td>4.6</td>
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<tr>
<td>Total</td>
<td>100</td>
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Stroke Capacity Planning Project Goals and the Stroke QBP

1. Defining appropriate model of stroke care
2. Defining appropriate capacity

QBP Clinical Handbook for Stroke
3. Completing a current state analysis of stroke unit structure, capacity, length of stay, and post-discharge management
4. Generate baseline forecasting of capacity, including scenario planning

5. Analysis & recommendations
6. Long-term implementation considerations
### Stroke Capacity Planning Project Governance Structure

**Links to Transformation Secretariat Overall Health System Capacity Planning Project**

**Transformation Program Secretariat** – Supports/Coordinates Overall Ministry Capacity Planning

**Steering Committee**

**Co-Chairs:**
- Dr. Frank Silver - Toronto Western
- Tracy Buckler - St. Joseph’s Care Group

**Committee Membership:**
- University of Toronto
- Toronto Western Hospital
- St. Joseph's Care Group
- Hamilton Health Sciences
- St. Michael's Hospital
- The Ottawa Hospital
- Sunnybrook Health Sciences Centre
- Hamilton Niagara Haldimand Brant LHIN
- North Simcoe Muskoka LHIN
- Central East LHIN
- Institute for Clinical Evaluative Sciences
- Ontario Stroke Network
- Cardiac Care Network
- Health Quality Ontario
- Sarnia-Lambton District Stroke Centre
- Patient Representative

**ADM Negotiations and Accountability Division MOHLTC**

**Sponsors**
- Director Provincial Programs Branch

**Project Leads**
- Provincial Programs Branch

**Internal Ministry Working Group**
- Provincial Programs Branch
- Health Analytics Branch
- Transformation Secretariat
- Health Quality Branch
- Fiscal Oversight Branch
- Planning, Research and Analysis LHIN Liaison Branch
Project Progress to Date
Drive-Time Service Area Analysis

**Best Practice:** QBP handbook suggests Ontarians receive time-critical stroke treatment, with ischemic stroke patients receiving treatment within 3.5 hours from symptom onset to ER or hospital admission for timely acute thrombolytic therapy

**Analysis:** A drive-time distance analysis was conducted to determine travel time and geographical accessibility to a tPA-delivery facility

**Results:**
- The analysis concluded that the majority of Ontario’s population are within a 2 hour drive time to a tPA-delivery facility
- The analysis for Northern Ontario is inconclusive and limited due to lack of data
- While tPA-delivery stroke facilities are geographically accessible, the analysis has not yet concluded if these facilities have sufficient capacity to deliver care to current or potential stroke patients in the region
Care Pathway Analysis

**Best Practice**: QBP handbook suggests to develop best practice patient clinical pathways based on evidence-based data

**Analysis**: A pathway analysis was conducted for all stroke cohorts and established baseline cross-sectoral care pathways from entry point of ED visit or hospital admission, up to the second care transition after hospital discharge, including average utilization (length of stay, service used) in each care pathway

**Results**: The analysis was completed, and results are compared against QBP handbook best practice and being used for the capacity modeling of base-line models
Stroke Capacity Planning Methodologies

**Best Practice:** QBP handbook urges system service capacity building and planning that reflects efficiency and standardization of best practice

**Analysis:** The capacity modeling will forecast QBP stroke incidence cases and baseline and best practice service utilization in the acute phase across all health sectors, overall and by LHIN; for non-QBP stroke, forecast of capacity is limited to incidence cases and baseline ED/acute care utilization at the provincial level

**Results:** Baseline model is being developed; best practice in the QBP handbook is being identified; scenario parameters will be determined based on expert inputs
The End
Appendix
# External Steering Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Dr. Frank Silver</td>
<td>Principal Investigator</td>
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<td>Tracy Buckler</td>
<td>Chief Executive Officer (CEO)</td>
<td>St. Joseph’s Care Group</td>
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<tr>
<td>Dr. Ruth Hall</td>
<td>OSN Evaluation Lead and Adjunct Scientist</td>
<td>Ontario Stroke Network (OSN) / Institute for Clinical Evaluative Sciences (ICES)</td>
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<td>Rhonda Whiteman</td>
<td>District Stroke Coordinator</td>
<td>Hamilton Health Sciences</td>
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<td>Matthew Meyer</td>
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<td>Donna Cripps</td>
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<td>Dr. R. Loch Macdonald</td>
<td>Division Head, Neurosurgery</td>
<td>St. Michael's Hospital</td>
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<td>Susan Plewes</td>
<td>Director, Health System Transformation</td>
<td>North Simcoe Muskoka LHIN</td>
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<td>Deborah Hammons</td>
<td>CEO</td>
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<tr>
<td>Linda Dykes</td>
<td>Manager</td>
<td>Sarnia-Lambton District Stroke Centre</td>
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<td>Christina O’Callaghan</td>
<td>Executive Director</td>
<td>OSN</td>
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<tr>
<td>Kori Kingsbury</td>
<td>CEO</td>
<td>Cardiac Care Network</td>
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<tr>
<td>Erik Hellsten</td>
<td>Senior Specialist for Quality-Based Funding</td>
<td>Health Quality Ontario</td>
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<tr>
<td>Jim Lumsden</td>
<td>Director Champlain Regional Stroke Network</td>
<td>The Ottawa Hospital</td>
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<td>Dr. David Butler-Jones</td>
<td>Patient Representative</td>
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<tr>
<td>Malcolm Moffat</td>
<td>Executive Vice President</td>
<td>Sunnybrook Health Sciences Centre</td>
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