

**Regional Stroke Community and Long-Term Care  
Coordinators/Specialists**

**Ontario Stroke System Monitoring and Evaluation  
in Community and Long-Term Care Settings**

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Evaluation Focusing: Program Logic Model and Evaluation  
Framework

Final Report

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Prepared By:

**Loretta M. Hillier**  
Evaluation Consultant  
London, Ontario  
(519) 433-1174  
lmhillier@rogers.com

## Glossary of Terms

ALC	Alternative Level of Care
BP	Best practice(s)
CCAC	Community Care Access Centres
CIHI	Canadian Institute for Health Information
CLTC	Community and Long-term Care
CSS	Community Support Services
HCP	Health Care Provider
LHIN	Local Health Integration Networks
LTC	Long-term Care
MDS/ RAI	Minimum Data Set/ Resident Assessment Instrument
MDS/ RAI - HC	Minimum Data Set/ Resident Assessment Instrument – Home Care
MDS/ RAI - LTC	Minimum Data Set/ Resident Assessment Instrument - Long-term Care
NRC	National Research Corporation
OACCAC	Ontario Association of Community Care Access Centres
OCSA	Ontario Community Support Association
OLTCA	Ontario Long-Term Care Association
OREG	Ontario Regional Educators Group
OSS	Ontario Stroke System
OT	Occupational Therapy
PSW	Personal Support Worker
PT	Physiotherapy
RFP	Request for Proposals
SEAC	Stroke Evaluation Advisory Committee
SLP	Speech and Language Pathology

## Executive Summary

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This report describes the development of a program logic model and evaluation framework for the initiatives of the Ontario Stroke System (OSS) in community and long-term care (CLTC) settings. This process was facilitated by an external evaluation consultant (Loretta M. Hillier), in collaboration with an evaluation subcommittee comprised of Regional Stroke CLTC Coordinators/ Specialists, Regional Stroke Program Managers and other key stakeholders such as representatives from the Stroke Evaluation Advisory Committee and the Stroke Rehabilitation and Community Engagement Subcommittee of the OSS.

A program logic model for describing the activities aimed at achieving the strategic direction of the OSS in CLTC settings has been developed in collaboration with Regional Stroke CLTC Coordinators/ Specialists from across the province; this model formed the basis of an evaluation framework. The evaluation will focus on the effectiveness of transition in stroke care as well as ongoing stroke service provision and supports within CLTC sectors rather than on the Regional Stroke CLTC Coordinator/ Specialist role.

The **Program Logic Model** focuses on CLTC activities aimed at building capacity in CLTC settings for person-centred care at three levels: 1. Health care provider level, 2. Consumer level (stroke survivors and families/caregivers), and, 3. Health system level. A number of principles guided the development of the logic model namely acknowledging that there are currently limited resources available for evaluation and limited information systems in place to develop reliable or valid indicators for all of the identified outcomes and that the implementation of the evaluation will be an evolving process.

The **Evaluation Framework** describes the methods to be employed for stated short and longer term outcomes, including outcome indicators, data sources, and data collection tools and resources. The identified objectives of the evaluation of the OSS in community and long-term settings are to:

- i. describe the activities being undertaken in CLTC settings that are aimed at achieving the strategic directions of the OSS.
- ii. identify outcomes associated with the activities being undertaken in CLTC settings.

This evaluation will initially rely on existing sources of information; with the availability of additional resources for evaluation, the potential exists for additional data collection. A number of factors that could facilitate or be helpful in the evaluation process have been identified.

**Evaluation implementation** will be an evolving process as: new sources of information become developed, access to new sources of information becomes available, (e.g., full implementation of the MDS/ RAI-LTC in 2010), opportunities to collect data in conjunction with other evaluation efforts arise, and as capacity for evaluation efforts (e.g., resources, experience) develop in CLTC settings.

Identification of evaluation priorities will occur over the next few months. Existing data sources provide some immediate evaluation opportunities. Potential immediate evaluation opportunities, as identified by the evaluation subcommittee pertain to the following outcomes:

- Development of resources to support uptake of stroke best practices (BPs; tools, curriculums, guidelines, protocols).
- Increasing / enhancing health care provider access to knowledge/ information to increase/ enhance knowledge and use of stroke best practices and available resources (BP guidelines assessments, care maps, etc.).
- Improving satisfaction with transition process and continuity of care across continuum (includes timely transfer of information & care plans, harmonization of services across settings).
- Increasing availability and access to stroke information, education, care and community supports & services (support groups, respite, and rehab) for stroke survivors and caregivers (reflecting increasing awareness of available stroke information, education, care and community supports & services).
- Improving access to the right services and supports at the right time and in the right place.

## 1.0 Background and Introduction

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The vision of the Ontario Stroke System (OSS) is fewer strokes and better outcomes for Ontarians. The mission of the OSS is to continually improve stroke prevention, care, recovery, and reintegration. To this end, the OSS identified five strategic directions: *Credible advisor to improve stroke prevention and care delivery; leadership and coordination, evaluation to support continuous improvement, innovation and knowledge, best practices across the continuum of stroke care.*<sup>1</sup>

The OSS Monitoring and Evaluation Initiative, under the guidance of the Stroke Evaluation Advisory Committee (SEAC), is responsible for measuring changes and outcomes in stroke prevention and care across the continuum of care. The development of an ongoing system to monitor and evaluate progress in CLTC settings towards achieving the strategic directions of the OSS has been challenged by gaps in data availability and data quality; indicators identified in the Stroke Performance Indicator Matrix are difficult to measure in these settings. Regional Stroke CLTC Coordinators/ Specialists have recommended the development of a program logic model to identify specific indicators and measures with which to evaluate the progress of the OSS in CLTC settings. The evaluation will focus on the effectiveness of transition in stroke care as well as ongoing stroke service provision and supports within CLTC sectors rather than on the Regional Stroke CLTC Coordinator/ Specialist role.

This report describes the development of a program logic model and evaluation framework for the initiatives of the OSS in CLTC settings.

## 2.0 Evaluation Focusing: Methods

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The program logic model and evaluation framework presented in this report were developed in collaboration with Regional Stroke CLTC Coordinators/ Specialists (11 regions across the province). A sub-committee was formed to advise this evaluation focusing process, with geographic representation of Regional Stroke CLTC Coordinators/ Specialists, Regional Stroke Program Managers, and other key stakeholders such as representation from the SEAC committee and the Stroke Rehabilitation and Community Engagement sub-committee of the OSS. This committee was chaired by Paula Gilmore, Southwestern Ontario CLTC Stroke Coordinator; members of the sub-committee were: Gwen Brown (Southeastern Ontario CLTC Stroke Coordinator), Donna Cheung (Stroke Rehabilitation and Community Re-engagement Coordinator, South East Toronto), Patrick Hurteau (Champlain Region, CLTC Coordinator), Jocelyn McKellar (Stroke Rehabilitation and Community Re-engagement Coordinator, Toronto West), Nadia Hladin (West Greater Toronto Area Stroke Network Regional Program Manager and Acting Chair, Stroke Rehabilitation and Community Engagement Committee), Ruth Hall, (OSS, Evaluator), and Bernice Miller (Central East, CLTC Specialist).

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<sup>1</sup> Ontario Stroke System (May 2007). Ontario Stroke System Strategic Plan: 2007-2012. Author.

A day-long meeting was held in Toronto on June 9, 2008 with all of the Regional Stroke CLTC Coordinators/ Specialists, representing the 11 regions across the province and all members of the evaluation sub-committee described above. In addition, Kasia Luebke (District Stroke Centre Coordinator) and Cally Martin (Southeastern Ontario Regional Program Manager and member of SEAC and the Provincial Coordinating Council) were in attendance. The purpose of this meeting was to begin the process of developing a comprehensive program logic model and evaluation framework. Several weeks prior to this meeting participants completed a pre-work survey, the data from which was used to focus the evaluation and to develop initial program logic models that formed the basis for discussion at the June 9<sup>th</sup> meeting. Pre-work survey questions were related to the identification of:

- activities within CLTC settings that are aimed at achieving the five OSS strategic directions;
- anticipated outcomes of these activities;
- potential evaluation questions;
- potential sources of evaluation information, and,
- potential barriers and enablers to the evaluation.

CLTC Stroke Coordinators/ Specialists were asked to answer evaluation focusing questions from the perspective of their region so as to identify potential regional variations in activities aimed at achieving OSS objectives. In addition, participants of the June 9<sup>th</sup> meeting received background information on logic models, evaluation indicators, and frameworks.

Subsequent to the June 9<sup>th</sup> meeting the sub-committee met via teleconference on six occasions (for at least 1.5 hours per meeting) to further revise and refine the program logic model and evaluation framework. All of the Regional Stroke CLTC Coordinators/ Specialists, along with the subcommittee, were invited to attend a teleconference (August 12, 2008) to obtain feedback and garner endorsement for the program logic model and evaluation framework that had been developed. Revisions to the logic model and evaluation framework were subsequently made based on feedback received. In addition, there was an opportunity for the Regional Stroke CLTC Coordinators/Specialists, the evaluation focusing sub-committee, and other identified key stroke system stakeholders to review a preliminary draft of this report and to provide comments and feedback, prior to its delivery, by the Regional Stroke CLTC Coordinators/ Specialists, to the SEAC.

The process of focusing the evaluation and developing the program logic model and evaluation framework was facilitated by an external evaluation consultant (Loretta M. Hillier).

### **3.0 Program Logic Models**

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Program logic models provide a vehicle for creating a shared understanding of a program, highlighting the activities that need to be accomplished in order to achieve desired goals and can be used to facilitate program development, management, and evaluation.<sup>2,3</sup> A program logic model for describing the activities aimed at achieving the strategic directions of the OSS in CLTC settings formed the basis for developing an evaluation framework. The strategic

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<sup>2</sup> Cooksy L.J., Gill, P., & Kelly, A. (2001). The program logic model as an integrative framework for a multimethod evaluation. *Evaluation and Program Planning*, 24, 119-128.

<sup>3</sup> Julian, D.A. (1997). The utilization of the logic model as a system level planning and evaluation device. *Evaluation and Program Planning*, 20, 251-257.

directions of the OSS formed the foundation of the program logic model. The program logic model developed as a result of the evaluation focusing process described in this report is presented in Appendix A.

The logic model focuses on CLTC activities aimed at building capacity in CLTC settings<sup>4</sup> for person-centred care at three levels: 1. Health care provider, 2. Consumer (stroke survivors and families/caregivers), and, 3. Health system. Emphasized across all three levels, is the building of capacity for person-centered stroke care and the continual identification of new best practices for stroke care. A number of principles guided the development of the logic model:

- Need to ensure this model reflects outcomes that could be generalized across the province and rather than specific to a particular region (these can be added at the local level).<sup>5</sup>
- Need to be realistic about what can and cannot be evaluated, taking into account the limited or non-existent resources available for evaluation.
- Need to acknowledge that information systems may not be in place to develop reliable or valid indicators for all of the identified outcomes. Regardless, it is still necessary to articulate these outcomes as they are critical to the activities that are being implemented in CLTC settings.
- Need to acknowledge that activity (outside of health promotion and stroke prevention) within CLTC settings is a relatively new component within the OSS, and as such the logic model and evaluation framework should reflect this. While a number of outcomes (other than those currently identified in the logic model) could be identified, it may be unrealistic to articulate all of them at this time. In addition, changes in some outcomes may not be evident in the short-term; longer-term evaluations will be necessary to assess change.
- Need to acknowledge that as the evaluation is conducted, it may become evident that some sources of data are not as reliable or valid as initially assumed, so that revisions / adaptations to the evaluation framework may be necessary.
- Need to acknowledge that a committee currently exists to evaluate OSS efforts in Health Promotion and Stroke Prevention; the opportunity exists to collect data that may be related to CLTC activities. The initiative described here avoids redundant evaluation.

Within CLTC settings across each region in the province there are a variety of activities that are being undertaken to achieve the strategic directions of the OSS. Some of these activities are consistent across the province, while others reflect the unique needs and context of specific regions. Some examples of current activities are presented in Appendix B.

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<sup>4</sup> This includes Long-Term Care homes, Complex Continuing Care, community settings and programs (e.g., day programs), and all settings where stroke survivors, families, and caregivers reside (e.g., supportive housing, retirement homes).

<sup>5</sup> As an example, the Southwest region recently received funding from the Local Health Integration Network as part of Aging at Home Strategy to develop Specialized Community Stroke Rehabilitation teams that will provide therapy following discharge from hospital for stroke survivors living in a variety of settings. Data will be collected related to a number of outcomes that could be used to support evaluation efforts in the Southwest region. This project is limited to the Southwestern region and so similar data will not be available in other regions.

## 4.0 Evaluation Framework

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The program logic model for describing the activities aimed at achieving the strategic direction of the OSS in CLTC settings formed the basis for developing an evaluation framework. This framework describes the methods to be employed for stated short and longer term outcomes, including outcome indicators, data sources, and data collection tools and resources. This framework is presented in Appendix C.

### 4.1 Evaluation Objectives

The identified objectives of the evaluation of the OSS in community and long-term settings are:

- **to describe the activities being undertaken in CLTC settings that are aimed at achieving the strategic direction of the OSS at the:**
  - **Health Care Provider Level:**
    - How many training/ education programs/sessions were conducted?
    - How many participants were there in the training/education sessions?
    - What and how many health care provider tools/ resources were developed and distributed?
    - How many resources were posted on existing websites? How many hits and downloads of these resources were there?
    - What (how many) projects/ events/ plans/ groups/ teams/ clinics were conducted?
    - How many health care providers/ professions/ sectors were engaged in stroke best practice initiatives?
    - What (how many) stroke related research projects were conducted?
  - **Consumer Level:**
    - What (how many) supports/ projects/ programs were available to stroke survivors and families/caregivers?
    - How many support/ education sessions were held?
    - How many stroke survivors/ family members participated in available support/ education sessions?
    - What (how many) joint initiatives with community service providers/ partners in care (e.g., recreation, day programs, education/support groups) were implemented?
    - What (how many) resources were developed and distributed to stroke survivors and families/ caregivers?
    - How many diversity sensitive<sup>6</sup> resources were created & distributed?
  - **Health System Level:**
    - What (how many) strategic linkages/ partnerships were created across sectors aimed at achieving the OSS strategic direction?

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<sup>6</sup> Resources sensitive to diversity/ variation in language, culture, ethnicity, Aboriginal identity, and religion.

- What (how many) professions/ sectors were engaged?
- What (how many) shared initiatives were established?
- What (how many) research projects were initiated?
- What (how many) funding proposals/ pilot projects were developed?
- What (how many) briefing notes / reports were developed?
- What (how many) committee/ networks/ LHIN/ government group memberships were established?
- What (how many) communications (information dissemination) were developed and disseminated?

ii) **to identify outcomes associated with the activities being undertaken in CLTC settings at the:**

• **Health Care Provider Level:**

- What impacts (increases/enhancement) were realized related to:
  - The development of interprofessional approaches to enhance stroke care?
  - The development of resources to support uptake of stroke BPs (tools, curriculums, guidelines, protocols)?
  - Health care provider access to knowledge/ information and use of stroke best practices and available resources (best practice guidelines, assessments, care maps, etc.)?
  - Capacity to respond to the needs of culturally diverse populations?
  - Uptake of stroke BPs in college and university program curricula?
  - Stroke-related research in CLTC settings?
  - Health care provider knowledge, identification and management of stroke risk factors (stroke prevention)?
  - Awareness of appropriate response to stroke symptoms?
  - Integration of stroke best practices into practice infrastructures (e-health, MDS, policies, procedures, standards, RFPs) and oversight processes (accreditation, compliance)?
- Has there been a decrease in the prevalence of post-stroke sequelae (depression, post-stroke complications) in CLTC settings?

• **Consumer Level:**

- What impacts (increases/ improvements) were realized related to:
  - Satisfaction with transition processes and continuity of care across the continuum (includes timely transfer of information & care plans, harmonization of services across settings)?
  - Social support (mutual/ peer support)?
  - Identification and self- management of risk factors and recovery?
  - Availability and access to stroke information, education, care and community supports & services (support groups, respite, and rehab) for stroke survivors and caregivers (reflecting increasing awareness of available stroke information, education, care and community supports & services)?

- The number of joint initiatives with community service providers/ partners in care?
- System navigation (connection to resources/ supports/ services)
- Community reintegration/ re-engagement<sup>7</sup> for stroke survivors and caregivers?
- Has the number of people having multiple strokes in CLTC settings decreased?
- Has caregiver burnout and crisis situations been reduced?
- Has stroke hospitalization and LTC placement from the community decreased?
- **Health System Level:**
  - What impacts (increases/ improvements) were realized related to:
    - The number of linkages and partnerships across the continuum, with academic centres and organizations (CSS, LTC, CCAC, LHIN, municipalities)?
    - The strategic prioritization of stroke care within planning processes of partner organizations and regional health systems?
    - The sharing of client information across the continuum of care?
    - The development of central repository (OSS) for stroke information/ resources?
    - Linkages for knowledge development & research?
    - Opportunities for innovative service provision models (e.g., interprofessional care approaches, collaborative care models, etc)?
    - Effectiveness and efficiency in transition management and system navigation (Including access to care coordination)?
    - Access to the right services and supports at the right time and in the right place?
    - Information management (e-health, resources and services)?
    - Sustained linkages and partnerships across the continuum, with academic centres and organizations (CSS, LTC, CCAC, LHIN, municipal)?

## 4.2 Sources of Information

To meet the evaluation objectives, the following sources of information will be accessed. Although it is acknowledged that the use of mixed evaluation methods (quantitative and qualitative) would be ideal, it is important to acknowledge that at this point in time there are no, or limited resources available for evaluation. This evaluation will need to rely on existing sources of information, primarily quantitative, such as:

- Canadian Institute for Health Information (CIHI)
- Regional Stroke CLTC Coordinators/ Specialists – data collection/ tracking

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<sup>7</sup> Improved community reintegration/ re-engagement is reflected in reduced isolation, improved functioning and independence, reduced caregiver burden, and improved health outcomes.

- Community Care Access Centre (CCAC) statistics
- MDS RAI-HC / MDS RAI-LTC<sup>8</sup>
- Living with Stroke program evaluation data
- National Research Corporation (NRC) Picker Survey
- Ontario Community Support Association – survey reports
- Ontario Regional Educators Group (OREG) Participation (evaluation) form
- OREG Year End Report
- OSS (Heart and Stroke Foundation) website webmaster
- OSS Provincial Reporting (Regional and District Stroke Centres)
- Regional Workplan Reports
- Stroke Evaluation Advisory Committee (SEAC) – Ontario Stroke Audit, Ambulatory Services Survey

With the availability of additional resources for evaluation, the potential exists for additional data collection including:

- Audit of CCAC charts
- Audit of LTC charts
- Survey of health care providers and caregivers
- Survey (health-related quality of life scales, Return to Normal Living Index) of stroke survivors in conjunction with their participation in stroke-related education or programs.

### **4.3 Potential Facilitating Factors and Barriers to Evaluation**

A number of factors that could facilitate the evaluation process have been identified. Numerous existing data sources have been identified (Section 4.2); much of these data are published and readily available. While all attempts have been made to identify potential sources of information, there may be others available that are yet to be identified. These will be incorporated into the evaluation framework as appropriate. In addition, the OSS may be in a position to capitalize on its partnerships with various organizations (e.g., OLTC, OCSA, CCAC, OACCAC, LHIN), academic institutions, and local groups (e.g., Family Health Teams, Public Health Units, Community Health Clinics) to facilitate data sharing and to create new opportunities for data collection in CLTC settings. Similarly, the potential for overlap in outcomes/indicators of interest across the system of stroke care may provide an opportunity to further explore linkages and integration across various evaluation frameworks and to capitalize on shared outcomes in a strategic manner. A final factor facilitating the evaluation is the comprehensiveness of indicators in that a few clearly defined indicators can reflect multiple outcomes.

A number of factors that might act as barriers to evaluation efforts have also been identified. These include:

- Limited resources for evaluation - funding and expert resources for data collection and analysis.

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<sup>8</sup> It is acknowledged that the MDS for long-term care settings is currently being implemented. However, it is not anticipated that this data source will be fully operational across the province until 2010. This may become a valuable source of data at that time.

- Limited evidence (indicators) for best practices in CLTC settings.
- Limited information systems in place to contribute to evaluation (no centralized or consistent source of information). Some existing data bases, though of high quality, do not classify by diagnosis so it is not possible to extrapolate data specifically related to stroke.
- Competing priorities within organizations so that stroke-related evaluation efforts may not be a key priority.
- Lack of integration or consistency in data collection methods among currently available data bases so that there is a potential for discrepancies in data.
- LTC settings are challenged by limited resources and time constraints to contribute to the evaluation process.
- Barriers to implementing stroke BPs (legislative and policy barriers, lack of resources, local and regional variation in priorities) will impact outcomes across the province.

While controlling these barriers is beyond the scope of this initiative, it is acknowledged that these are relevant and will impact the evaluation. Further discussions will be necessary to identify strategies to overcome these barriers.

## **5.0 Evaluation Implementation**

The evaluation framework presented in this report represents the first comprehensive attempt at evaluating the activities of the OSS in CLTC settings. It is anticipated that the evaluation will be an evolving process as: new sources of information become developed, access to new sources of information becomes available, (e.g., full implementation of the MDS/ RAI-LTC in 2010), opportunities to collect data in conjunction with other evaluation efforts arise, and as capacity for evaluation efforts (e.g., resources, experience) develop in CLTC settings. It is also anticipated that this evaluation will provide opportunities to highlight regional differences in activities aimed at achieving the mission of the OSS.

Acknowledging that there are limited resources for evaluation and that there are limited information systems in place from which to extract relevant data, it may not be feasible for all of the evaluation questions (anticipated outcomes/ indicators) to be addressed at one time. It may be advantageous to start the evaluation by strategically selecting consistent key/priority evaluation questions for all regions of the province to initially focus on; locally additional questions can be selected as appropriate. Discussions regarding these initial priorities will be undertaken across the regions over the next few months. Existing data sources provide some immediate evaluation opportunities. Potential immediate evaluation opportunities, as identified by the evaluation subcommittee pertain to the following outcomes:

### ***Health Care Provider Level:***

- Development of resources to support uptake of stroke best practices (BPs; tools, curriculums, guidelines, protocols).
- Increasing / enhancing health care provider access to knowledge/ information to increase/ enhance knowledge and use of stroke best practices and available resources (BP guidelines assessments, care maps, etc.).

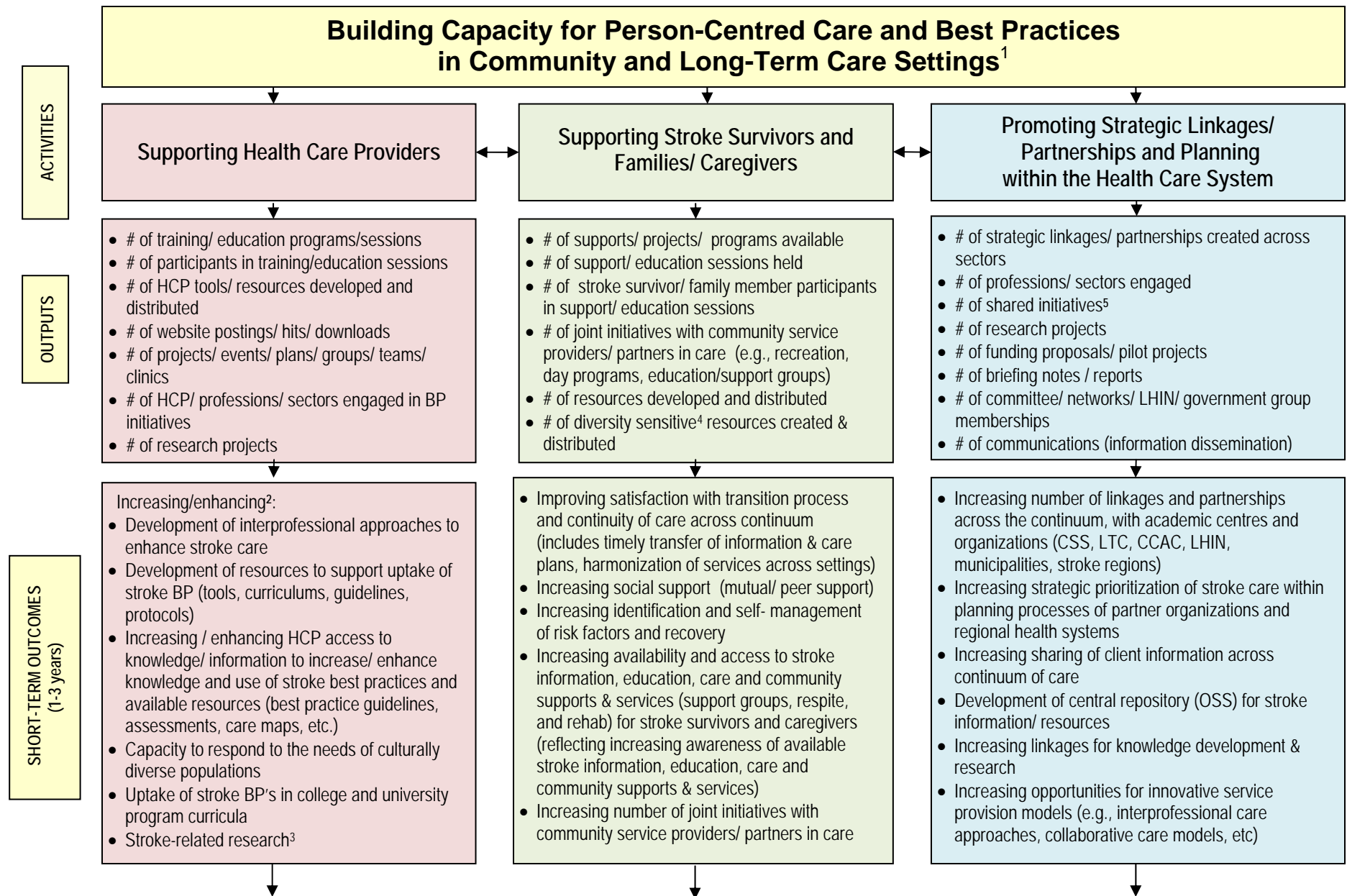
**Consumer Level:**

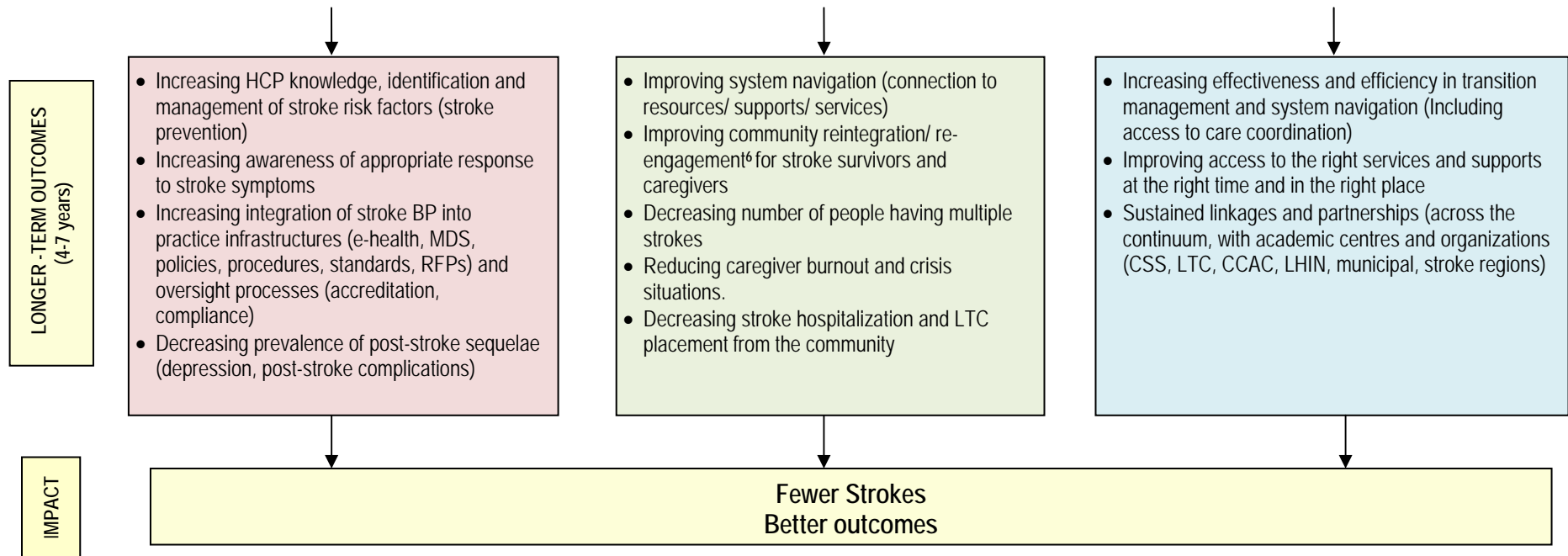
- Improving satisfaction with transition process and continuity of care across continuum (includes timely transfer of information & care plans, harmonization of services across settings).
- Increasing availability and access to stroke information, education, care and community supports & services (support groups, respite, and rehab) for stroke survivors and caregivers (reflecting increasing awareness of available stroke information, education, care and community supports & services).

**Health System Level:**

- Improving access to the right services and supports at the right time and in the right place.

A one year data collection time period would allow for comparison across one-year time frames, which is consistent with OSS reporting structures. The first year of data collection will provide baseline data for subsequent comparison. A key deliverable for this evaluation would be a final report presenting results at provincial and regional levels, with corresponding recommendations for revisions to the evaluation methods, as necessary, and for furthering activities aimed at achieving the objectives of the OSS strategic direction.





<sup>1</sup> This includes Long-Term Care homes, Complex Continuing Care, community settings and programs (e.g., day programs), and all settings where stroke survivors, families, and caregivers reside (e.g., supportive housing, retirement homes).

<sup>2</sup> Change may be related to either increases or enhancements, depending on individual situations.

<sup>3</sup> Research includes any systematic inquiry or investigation in order to gather new information or answer questions of interest related to stroke care, including evaluation studies and studies conducted in academic and non-academic centres.

<sup>4</sup> Resources sensitive to diversity/variation in language, culture, ethnicity, Aboriginal identity, and religion.

<sup>5</sup> Shared Initiatives – joint development and implementation of community based and driven initiatives related to stroke.

<sup>6</sup> Improved community reintegration/ re-engagement is reflected in reduced isolation, improved functioning and independence, reduced caregiver burden and improved health outcomes.

**NOTE:** Evaluation will focus on the effectiveness of transition in stroke care and the ongoing stroke service provision and supports within CLTC sectors rather than on the Regional Stroke CLTC Coordinator/Specialist role.

BP = Best Practices; LTC = Long Term Care; LHIN = Local Health Integrated Network; CSS = Community Support Services; CCAC = Community Care Access Centre; OSS = Ontario Stroke System; MDS = Minimum Data Sets; RFP = Request for Proposals; HCP = Health Care Provider.

LORETTA M. HILLIER  
Health Care Research and Evaluation  
lmhillier@rogers.com

## **Appendix B: Building Capacity for Person-Centred Care and Stroke Best Practices**

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### **Examples of activities and resources aimed at achieving the OSS Strategic Directions in Community and Long-Term Care Settings**

**Supporting Health Care Providers** through the promotion of:

- Education: workshops, symposiums, mentorships
- University curricula
- Awareness raising activities
- Tools and resources (Save the Brain, Brain, Body & You, Tips & Tools, website resources, assessment tools)
- Health clinics (obesity, aphasia)
- Best Practices in LTC
- Protocols for TIA management
- Specific population strategies
- Gap analysis
- Shared work days/field experiences/ learning initiatives
- Living with Stroke Facilitators Training

**Supporting Stroke Survivors and Families** through the promotion of

- EASIER and SMILE projects
- Living with Stroke programs
- Follow up calls to discharged patients
- Transition Information Plan
- Self-help groups (support and recovery)
- Rehab teams
- Prevention / neurosurgical clinics
- Website resources
- Booklets/ resource guides/ newsletters
- Exercise programs

**Promoting Strategic Linkages/ Partnerships and System Planning** through the promotion of:

- Community Reintegration Leadership Team
- Connecting the Dots
- Advisory, Planning, Steering Committee Memberships
- Aging at Home Strategy proposals
- Health System Improvement proposals
- Advocacy

**Building Capacity for Person-Centred Care and Stroke Best Practices  
in Community and Long-Term Care Settings<sup>1</sup>**

NOTE: Evaluation will focus on the effectiveness of transition in stroke care as well as ongoing stroke service provision and supports within the CLTC sectors rather than on the Regional Stroke CLTC Coordinator/Specialist role.

**Evaluation Framework: Supporting Health Care Providers**

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
<b>Short-Term Outcomes</b>				
<b>Best practices across the continuum of stroke care</b>	Increasing/ enhancing <sup>2</sup> development of interprofessional care approaches to enhance stroke care	<ul style="list-style-type: none"> <li>• # of interprofessional care approaches</li> </ul>	Increase from previous data collection time period	Information systems are currently not in place to develop reliable or valid indicators for this outcome.
	Increasing/enhancing development of resources to support uptake of stroke best practices 's (tools, curriculums, guidelines, protocols)	<ul style="list-style-type: none"> <li>• # of training/ education programs/ sessions in # of participants in training/ education sessions</li> <li>• # of requests for training/education/ resources/ tools</li> <li>• # of requests for training/ education/ resources met</li> <li>• # of resources/ tools developed and disseminated</li> <li>• # of website postings/ hits/ downloads (and other web statistics, e.g. average amount of time on each site/ page)</li> </ul>	Increase from previous data collection time period	OREG – Participation Form; OREG year end report  Provincial Reporting Regional Stroke Centres  Web statistics (Webmaster)

<sup>1</sup> This includes Long-Term Care homes, Complex Continuing Care, community settings and programs (e.g., day programs), and all settings where stroke survivors, families, and caregivers reside (e.g., supportive housing, retirement homes).

<sup>2</sup> Change may be related to either increases or enhancements, depending on individual situations.

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
<b>Short-Term Outcomes</b>				
<b>Best practices across the continuum of stroke care</b>	Increasing / enhancing HCP access to knowledge/ information to increase/ enhance knowledge and use of stroke best practices and available resources (best practice guidelines assessments, care maps, etc.),	<ul style="list-style-type: none"> <li>• # of training/ education programs/ sessions</li> <li>• # of participants in training/ education session</li> <li>• # of requests for training/education/ resources met (including education on Tips &amp; Tools)</li> <li>• # of resources/ tools developed and disseminated</li> <li>• # of website postings/ hits/ downloads (and other web statistics, e.g. average amount of time on each site/ page)</li> <li>• # of referrals to CCAC for PT, OT, SLP, social work, dietitians, nursing, PSW support</li> <li>• # (%) of stroke survivors in LTC with complications (e.g., pain, depression, pneumonia)</li> <li>• Learner self-rating of knowledge and skill before and after workshops Descriptions by participants of intended changes in practice</li> </ul>	Increase from previous data collection time period	<p>OREG – Participation Form; OREG year end report</p> <p>Provincial Reporting Regional Stroke Centres</p> <p>CCAC database</p> <p>MDS/ RAI-HC MDS/ RAI-LTC</p> <p>OREG – Participant Form</p> <p>OREG: Participant Evaluation Form(Q.5) Regional Reporting Participant Evaluation Form (Q.6) Regional Reporting</p>
	Increasing/ enhancing capacity to respond to culturally diverse populations	<ul style="list-style-type: none"> <li>• # of tools available targeting culturally diverse populations</li> <li>• # of joint initiatives targeting culturally diverse populations</li> </ul>	Increase from previous data collection period	CLTC Coordinators: data collection/tracking

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
Credible Advisor to improve stroke prevention and care delivery	Increasing/ enhancing uptake of stroke best practices in college and university program curricula	<ul style="list-style-type: none"> <li>• # of information requests by universities/ colleges</li> <li>• # of linkages/ interfaces with universities/ colleges</li> <li>• # of education sessions provided by universities/ colleges</li> <li>• # of universities/ college programs/ curricula that include stroke care best practices/ tools/ resources.</li> </ul>	Increase from previous data collection period	Regional & District Stroke Centres  Curricula audit
Innovation and knowledge	Increasing stroke-related research	<ul style="list-style-type: none"> <li>• # of stroke related research projects<sup>3</sup></li> </ul>	Increase from previous data collection period	Regional Stroke Centres; Regional Workplan Report.

<sup>3</sup> Research includes any systematic inquiry or investigation in order to gather new information or answer questions of interest related to stroke care, including evaluation studies and studies conducted in academic and non-academic centres.

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
<b>Longer-Term Outcomes</b>				
<b>Best practices across the continuum of stroke care</b>	Increasing/ enhancing HCP knowledge, identification and management of risk factors (stroke prevention)	<ul style="list-style-type: none"> <li>• # of training/ education programs/ sessions</li> <li>• # of participants in training/ education sessions</li> <li>• disciplines of participants</li> <li>• # of requests for training/education/ resources/ tools</li> <li>• # of requests for training/ education/ resources met</li> <li>• # of resources/ tools developed and disseminated</li> <li>• # of website postings/ hits/ downloads (and other web statistics, e.g. average amount of time on each site/ page)</li> <li>• learner self-rating of knowledge and skill before and after workshops</li> <li>• descriptions by participants of intended changes in practice</li> <li>• # of new strokes admitted to hospital (ED and Inpatient ) from LTC</li> <li>• # of new strokes admitted to hospital (ED and Inpatient) from home with homecare services in place</li> <li>• # of adults with high BP whose BP is under control</li> <li>• # of charts with BP monitoring</li> <li>• # of charts with cholesterol level, alcohol consumption, smoking status on recorded</li> <li>• # of health risk assessments</li> </ul>	<p>Increase from previous data collection time period</p> <p>Decrease in number of new and multiple strokes in LTC from previous data collection time period (reflecting improved management of risk factors.</p>	<p>OREG – Participation Form; OREG year end report</p> <p>Provincial Reporting Regional Stroke Centres</p> <p>OREG: Participant Evaluation Form(Q.5) Regional Reporting Participant Evaluation Form (Q.6) Regional Reporting</p> <p>CCAC – chart audit</p> <p>LTC – chart audit</p> <p>MDS/ RAI-HC</p> <p>Spirit (potentially)</p>

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
	Increasing awareness of appropriate response to stroke symptoms (reflecting increasing awareness of appropriate response to stroke symptoms)	<ul style="list-style-type: none"> <li>• # (%) of all stroke patients arriving hospital within 2.5/ 3.5 hours of stroke symptom</li> <li>• # (%) of potential stroke patients admitted to hospital (ED and inpatient) # of potential stroke patients transported to hospital by ambulance</li> <li>• Learner self-rating of knowledge and skill before and after workshops</li> </ul>	Increase over previous data collection time period	SEAC; Ontario Stroke Audit  OREG: Participation Form; OREG year end report  MDS/RAI – HC MDS/RAI – LTC
	Decreasing prevalence of post- stroke sequelae (e.g.,: depression, post-stroke complications)	<ul style="list-style-type: none"> <li>• # (%) of hospital readmissions within three months following stroke</li> <li>• # (%) of hospital readmissions within one year following stroke</li> <li>• # (%) of deaths at 30 days following stroke or TIA</li> <li>• # (%) of deaths within one year following stroke or TIA</li> <li>• # (%) of stroke survivors in LTC with complications (e.g., pain, depression, pneumonia)</li> </ul>	Decreased from previous data collection time period	SEAC; Ontario Stroke Audit  MDS/RAI – LTC

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools
Credible Advisor to improve stroke prevention and care delivery	Increasing integration of stroke BP into practice infrastructures (e-health, MDS, policies, procedures, standards, RFPs) and oversight processes (accreditation, compliance)	<ul style="list-style-type: none"> <li>• # (%) of HCPs (agencies/ LTC homes) that have integrated stroke BP into practice infrastructures and oversight processes</li> <li>• # (%) of CCACs who have integrated community BP into case management processes.</li> </ul>	Increase from previous data collection time period	Survey/ audit: opportunities for development and implementation to be explored

## Evaluation Framework: Supporting Stroke Survivors and Families/ Caregivers in Community and Long-Term Care Settings

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
Best practices across the continuum of stroke care	Improving satisfaction with transition process and continuity of care across continuum (includes timely transfer of information & care plans, harmonization of services across settings)	<ul style="list-style-type: none"> <li>client satisfaction with transition management and continuity of care</li> <li>average # of days from discharge from acute or inpatient rehabilitation setting to time of first CCAC provider visit or LTC admission</li> <li>mean wait time for nursing services, PT, OT, SLP, dietetics, social work, PSW psychology and respite services in community and LTC settings, as appropriate</li> <li>mean wait time between discharge from inpatient rehab services and start of community based services</li> </ul>	<p>Increased client satisfaction from previous data collection time periods</p> <p>Reduced wait times for services from previous data collection time periods.</p>	<p>SEAC</p> <p>NRC Picker Survey (opportunity may exist to extrapolate data by diagnosis)</p> <p>CCAC database (wait times, satisfaction)</p> <p>MDS/ RAI - HC MDS/ RAI - LTC</p>

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
	Increasing social support (mutual/peer support)	<ul style="list-style-type: none"> <li>• # of support groups</li> <li>• # of participants</li> <li>• # of initiatives directed at caregiver support</li> <li>• reduced caregiver burden</li> <li>• increased perceived social support</li> </ul>	<p>Increase from previous data collection time period</p> <p>Reduced caregiver burden</p>	<p>OREG – Participation Form; OREG year end report</p> <p>Provincial Reporting Regional Stroke Centres</p> <p>OREG: Participant Evaluation Form(Q.5) Regional Reporting Participant Evaluation Form (Q.6) Regional Reporting</p> <p>Survey: opportunities for development and implementation in support groups to be explored</p>
	Increasing identification and self- management of risk factors and recovery	<ul style="list-style-type: none"> <li>• Health-related quality of life scores (e.g., SF12/ SF36)</li> <li>• Return to Normal Living Index scores</li> <li>• Life H scores</li> </ul>	Scores reflecting increased quality of life, improved self-management and recovery.	Health-related quality of life scale (SF12/ SF36); Return to Normal Living Index; Life-H: opportunities to collect data to be explored

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
	Increasing availability and access to available stroke information, education, care and community supports & services (support groups, respite, and rehab) for stroke survivors and caregivers (reflecting increasing awareness of available stroke information, education, care and community supports & services)	<ul style="list-style-type: none"> <li>• # of existing community programs that stroke survivors have access to</li> <li>• # of Living with Stroke programs/ sessions</li> <li>• # of participants</li> <li>• # of respite referrals</li> <li>• # of rehabilitation referrals</li> <li>• # of supportive communication referrals</li> <li>• # of diversity sensitive<sup>4</sup> resources disseminated</li> </ul>	Increase over previous data collection time period	CCAC database (MDS/ RAI-HC)  Living with Stroke evaluation data
<b>Credible Advisor to improve stroke prevention and care delivery</b>	Increasing number of joint initiatives with community service providers/ partners in care	<ul style="list-style-type: none"> <li>• Number of joint initiatives with community service providers/ partners in care</li> </ul>	Increase over previous data collection time period	CLTC Coordinators: – data tracking  Survey of community and LTC providers: opportunities for survey development and implementation to be explored

<sup>4</sup> Resources sensitive to diversity/variation in language, culture, ethnicity, Aboriginal identity, and religion

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
<b>Longer-Term Outcomes</b>				
Best practices across the continuum of stroke care	Improving system navigation (connection to resources/ supports /services)	<ul style="list-style-type: none"> <li>client satisfaction with transition management and continuity of care</li> <li># of days from discharge from acute or inpatient rehabilitation setting to time of first CCAC provider visit or LTC admission</li> <li>mean wait time for nursing services, PT, OT, SLP, dietetics, social work, PSW psychology and respite services in community and LTC settings as appropriate</li> <li>mean wait time between discharge from inpatient rehab services and start of community based services</li> </ul>	<p>Increased client satisfaction from previous data collection time periods</p> <p>Reduced wait times for services from previous data collection time periods.</p>	<p>SEAC</p> <p>NRC Picker Survey (opportunity may exist to extrapolate data by diagnosis)</p> <p>CCAC database (wait times, satisfaction)</p>

<b>OSS Direction</b>	<b>OUTCOMES</b>	<b>INDICATORS</b>	<b>TARGET/ BENCHMARK</b>	<b>METHODS: Data source/ tools/ design/ timeline</b>
	Improving community reintegration/ re-engagement <sup>5</sup> for stroke survivors and caregivers	<ul style="list-style-type: none"> <li>• reduced isolation</li> <li>• Improved functioning and independence</li> <li>• reduced caregiver burden</li> <li>• # of respite referrals</li> <li>• # of other community supports available</li> <li>• improved health outcomes</li> </ul>	<p>Scores reflecting reduced isolation and caregiver burden, increased functioning and independence, and improved health outcomes from previous data collection time period.</p> <p>Increase in respite referrals and other community supports available from previous data collection time periods</p>	Health-related quality of life scale (SF12/ SF36); Return to Normal Living Index; Life-H: opportunities to collect data to be explored
	Decreasing number of people having multiple strokes	<ul style="list-style-type: none"> <li>• # of people with multiple strokes</li> </ul>	Decrease from previous data collection time periods	Provincial Reporting Regional Stroke Centres  CIHI

<sup>5</sup> Improved community reintegration/ re-engagement is reflected in reduced isolation, improved functioning and independence, reduced caregiver burden and improved health outcomes

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
	Reducing caregiver burnout and crisis situations	<ul style="list-style-type: none"> <li>• self-reported perceptions of caregiver burden</li> <li>• # of respite referrals</li> <li>• # of community supports available</li> <li>• # of individuals accessing community supports</li> </ul>	<p>Scores reflecting reduced caregiver burden from previous data collection time periods</p> <p>Increase in respite referrals, community supports available and participants from previous data collection time periods</p>	<p>Caregiver Burden survey: opportunities to collect data to be explored (e.g., Living with Stroke programs)</p> <p>CCAC database</p>
	Decreasing stroke hospitalizations and LTC placement from the community	<ul style="list-style-type: none"> <li>• discharge disposition from acute care:</li> <li>• % home with services</li> <li>• % home without services</li> <li>• % long-term care</li> </ul>	Decrease from previous data collection time period	SEAC (MOHLTC)

## Promoting Strategic Linkages/ Partnerships and Planning within the Health Care System

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
Best practices across the continuum of stroke care	Increasing sharing of client information across continuum of care	<ul style="list-style-type: none"> <li>• provider satisfaction with information received</li> <li>• # (%) of organizations with electronic linkages to information</li> </ul>	Increase over previous data collection time period	Information systems are currently not in place to develop reliable or valid indicators for this outcome.
Innovation and Knowledge	Development of central repository (OSS) for stroke information/ resources	<ul style="list-style-type: none"> <li>• existence of a central repository</li> <li>• # of website postings (tools, resources, information)</li> </ul>	Increase in available information over previous data collection time period	Web statistics (Web Master)
	Increasing linkages for knowledge development & research	<ul style="list-style-type: none"> <li>• # of linkages/ collaborations for knowledge development and research</li> <li>• # of research projects</li> </ul>	Increase over previous data collection time period	CLTC Coordinators: data tracking
Credible Advisor to improve stroke prevention and care delivery	Increasing number of linkages and partnerships across the continuum, with academic centres and organizations (CSS, LTC, CCAC, LHIN)	<ul style="list-style-type: none"> <li>• # of linkages/ partnerships with academic centres</li> <li>• # of linkages/ partnerships with organizations (CSS, LTC, CCAC, LHIN)</li> </ul>	Increase over previous data collection time period	CLTC Coordinators: data tracking

<b>OSS Direction</b>	<b>OUTCOMES</b>	<b>INDICATORS</b>	<b>TARGET/ BENCHMARK</b>	<b>METHODS: Data source/ tools/ design/ timeline</b>
	Increasing strategic prioritization of stroke care within planning processes of partner organizations and regional health systems	<ul style="list-style-type: none"> <li>• # of organizations that mention stroke care/ management in strategic plans</li> </ul>	Increase over previous data collection time period	CLTC Coordinators: data tracking
	Increasing opportunities for innovative service provision models (e.g., interprofessional care approaches, collaborative care models, etc.)	<ul style="list-style-type: none"> <li>• # of collaborative linkages established to develop innovative service provision models</li> <li>• # of innovative service provision models developed</li> </ul>	Increase over previous data collection time period	CLTC Coordinators: data tracking
<b>Longer-Term Outcomes</b>				
<b>Best practices across the continuum of stroke care</b>	Increasing effectiveness and efficiency in transition management and system navigation (including access to care coordination)	<ul style="list-style-type: none"> <li>• # of community referrals to CCAC;</li> <li>• wait times for: <ul style="list-style-type: none"> <li>• LTC from acute care (ALC)</li> <li>• CCAC services</li> <li>• Outpatient services</li> </ul> </li> <li>• patient satisfaction with information management</li> </ul>	Reduced wait times from previous data collection time period	CCAC database CIHI Ambulatory Services Survey (SEAC) SEAC

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
	Improving access to the right services and supports at the right time and in the right place	<ul style="list-style-type: none"> <li>• # (%) of active clients with stroke receiving home care services (nursing, PT, OT, SLP, dietetics, social work, PSW, psychology, respite)</li> <li>• # (%) of new clients with strokes receiving nursing, PT, OT, SLP, dietetics, social work, PSW, psychology, respite in community and LTC settings as appropriate</li> <li>• # (%) of community support providers participating in education (reflecting stroke-related expertise)</li> <li>• discipline of participants</li> <li>• client satisfaction with transition management and continuity of care</li> <li>• average # of days from discharge from acute or inpatient rehabilitation setting to time of first CCAC provider visit or LTC admission</li> <li>• mean wait time for nursing services, PT, OT, SLP, dietetics, social work, PSW psychology and respite services in community and LTC settings as appropriate</li> </ul>	<p>Increase from previous data collection time period.</p> <p>Increased client satisfaction from previous data collection time periods</p> <p>Increase in LTC homes with services (decrease in those without services), active and new clients with stroke receiving home care and other services, and reduction in clients discharged to LTC and wait times for services over previous data collection time period.</p>	<p>SEAC (MOHLTC) OREG – Participation Form; OREG year end report CCAC database (wait times, satisfaction) NRC Picker Survey (opportunity may exist to extrapolate data by diagnosis) MDS/ RAI – HC MDS/ RAI - LTC CIHI OSCA SPIRIT (Acute)</p>

OSS Direction	OUTCOMES	INDICATORS	TARGET/ BENCHMARK	METHODS: Data source/ tools/ design/ timeline
	Improving access to the right services and supports at the right time and in the right place ( <i>Continued</i> )	<ul style="list-style-type: none"> <li>• % of LTC homes with services (by service)</li> <li>• % of LTC homes without services (by service)</li> <li>• % of active clients with stroke receiving home care and other services</li> <li>• % of new clients with stroke receiving home care and other services</li> <li>• % of clients discharged to LTC</li> <li>• Wait times for services (association with ALPHA-FIM)</li> </ul>		
Leadership and coordination	Sustained linkages and partnerships (across the continuum, with academic centres and organizations (CSS, LTC, CCAC, LHIN, municipal))	<ul style="list-style-type: none"> <li>• # of committees</li> <li>• # of projects</li> <li>• # of stakeholders involved in regional stroke activities</li> <li>• # of LHIN interfaces (committees, projects, task groups, panels, proposals)</li> <li>• # of meetings facilitated with regional partners</li> </ul>	Maintained or increased from previous data collection time period	<p>Regional Workplan Report; Meeting exit survey</p> <p>Regional reports/ surveys</p> <p>CLTC Coordinators: data tracking</p>