

Early Supported Discharge - Sample Business Case Elements

Developed by the Ontario Stroke Network's Provincial Integrated Working Group on Early Supported Discharge

This document contains information, literature, references and examples that can be used to develop and/or enhance a region-specific business case for an Early Supported Discharge program. The Sample Business Case Components include:

- Project Summary, Program Goals/Executive Summary
- Recommendation
- Background
- Project Details
- Impact and Interdependencies
- Strategic Options Analysis and Recommendations
- High Level Schedule Workplan/Implementation Timelines
- Budget

Purple highlighting denotes example statements for application to shape the content of the business case, to align with regional specific data and strategic priorities.

Recommendations for the author of the business case to consider are written in blue. Note that references are cited immediately after the section that they pertain to.

Project Summary and Programs Goals / Executive Summary

Early supported discharge (ESD) is a form of time limited rehabilitative care designed to accelerate the transition from hospital to home through the provision of rehabilitation therapies delivered in the community by a well-resourced, specialized interprofessional team. ESD is intended as an alternative to a complete course of in-hospital rehabilitation and is most suitable for patients recovering from mild to moderate stroke. ESD will optimize the use of resources and reduce transitions between services while providing best practice, consistency and seamless care.

There is growing research to support ESD as a way to achieve improved patient experience, best practice stroke care as well as efficiencies, improved patient flow through the system, reduction in alternate level of care (ALC) days and guarantee that more stroke survivors live at home. Implementing ESD is expected to shorten hospital length of stay (LOS) (both acute and inpatient rehabilitation), reduce acute readmissions, and reduce admissions to long term care (LTC).

Recommendation:

Example: Ultimately, three teams will be required to meet needs across the XXX LHIN (one in each county). This proposal is for a pilot program in XXX, in order to allow implementation and funding in a phased approach across the LHIN. Using a mixed delivery model, team services will initially be provided in the home setting, transitioning to provision in an ambulatory setting as soon as the patient's functional status allows.

Funding Requested for Year 1 (Annualized & One-Time): \$ xxx,xxx including travel and 1 time capital costs

Total Staffing Requested (Year 1): x FTE staff for x months in the start-up year: includes x Coordinator, x Clerical x Nursing, x Physiotherapy, x Occupational Therapy, x Speech Language Pathology, x Social Work, x Recreation Therapy, x FTE Therapy Assistants.

Business Case Name and Contact Information

Project Name:

Contact Information:

Project Partners:

1. Background

a) Project Rationale – From ESD Backgrounder

<http://ontariostrokenetwork.ca/stroke-rehabilitation-resource-centre/wp-content/uploads/sites/2/2014/04/OSN-Backgrounder-Early-Supported-Discharge-Sept-25-2014-FINAL.pdf>

Stroke survivors should continue to have access to specialized stroke services after leaving hospital, whether from acute care or inpatient rehabilitation.¹ Early supported discharge (ESD) is a form of rehabilitation designed to accelerate the transition from hospital to home through the provision of rehabilitation therapies delivered by an interprofessional team, in the community. ESD is intended as an alternative to a complete course of in-hospital rehabilitation and is most suitable for patients recovering from mild to moderate stroke.¹

ESD has been further defined to include services that are provided by a well-resourced, specialized, interprofessional team whose work is coordinated through regular team meetings.² Services should be provided five days per week at the same level of intensity as would have been delivered in the inpatient setting in order to address individual patient needs.¹

ESD services support seamless transfer from hospital and allow appropriate patients to continue their rehabilitation at home.^{1,3} Since the primary goal of rehabilitation is to establish skills to support community reintegration, the home itself provides the optimal rehabilitation environment.¹

The Quality-Based Procedures (QBP): Clinical Handbook for Stroke (2013) suggests that the rehabilitation needs of patients classified with “mild stroke” could be met in the community and that the availability of appropriately resourced ESD services could reduce the number of admissions to more costly inpatient rehabilitation services.⁴ A module on ESD has been included in the 2015 iteration of the Quality-based procedures: clinical handbook for stroke (acute and postacute).⁵

1. Dawson AS, Knox J, McClure A, Foley N, and Teasell R, on behalf of the Stroke Rehabilitation Writing Group. *Chapter 5: Stroke Rehabilitation*. In Lindsay MP, Gubitz G, Bayley M, and Phillips S (Editors) on behalf of the Canadian Stroke Best Practices and Standards Advisory Committee. *Canadian Best Practice Recommendations for Stroke Care: 2013*; Ottawa, Ontario Canada: Heart and Stroke Foundation and the Canadian Stroke Network. <http://www.strokebestpractices.ca/index.php/stroke-rehabilitation/outpatient-and-community-based-stroke-rehabilitation-including-esd/>

2. Lindsay MP, Gubitz G, Bayley M, Hill MD, Davies-Schinkel C, Singh S, Phillips S. *Canadian Best Practice Recommendations for Stroke Care (Update 2010)*. On behalf of the Canadian Stroke Strategy Best Practices and Standards Writing Group. 2010; Ottawa, Ontario Canada: Canadian Stroke Network.

3. Fisher RJ, Gaynor C, Kerr M, Langhorne P, Anderson C, Bautz-Holter E, Indredavik B, Mayo NE, Power M, Rodgers H, Ronning OM, Holmqvist LW, Wolfe CDA, Walker MF. A Consensus on Stroke Early Supported Discharge. *Stroke*. 2011;42(5):1392-1397.

4. Ministry of Health and Long Term Care, Quality Based Procedures: Clinical Handbook for Stroke, March 2013. http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf

5. Health Quality Ontario; Ministry of Health and Long-Term Care. *Quality-based procedures: clinical handbook for stroke (acute and postacute)*. Toronto: Health Quality Ontario; 2015 February. 148 p. Available from: <http://www.hqontario.ca/Portals/0/Documents/eds/clinical-handbooks/community-stroke-20151802-en.pdf>

b) Leading/ Best Practice Analysis/ Evidence/ Key Support Documents

Several reports and system changes describe transformations that are needed to improve client experience in the pursuit of ‘right care, right time, and right place.’ This demands collaboration from all health care partners across the system.

1) The Cochrane Collaboration: Services for reducing duration of hospital care for acute stroke patients (2012 Review)

“Early supported discharge services aim to allow patients to return home from hospital earlier than usual and receive more rehabilitation in the familiar environment of their own home. Early supported discharge services are provided by teams of therapists, nurses and doctors. This review, which identified 14 trials with 1957 participants, found that patients who received these services returned home earlier and were more likely to remain at home in the long term and to regain in daily activities. The best results were seen with well-organized discharge teams and patients with less severe strokes.”

Fearon P, Langhorne P. (2012). Early supported discharge trialists: Services for reducing duration of hospital care for acute stroke patients. Cochrane Database of Systematic Reviews, Issue 9.

2) Ministry of Health and Long Term Care, Quality Based Procedures: Clinical Handbook for Stroke (2013¹, 2015²)

“Early supported discharge (ESD) and outpatient/community rehabilitation are essential components of best practice stroke care to achieve optimal outcomes and efficiencies. In this module, an interprofessional team provides rehabilitation and educational interventions in the community in the first few days and weeks after discharge from either inpatient acute care or rehabilitation care. These teams have been shown to reduce length of stay and will be an essential support to consistent achievement of the targets noted previously for inpatient care.”¹

Detailed recommended practices, focusing on post-acute, community-based patient care for stroke patients during and after discharge from hospital, have been identified and included the 2015 iteration of the Clinical Handbook for Stroke (acute and post-acute).² Module 7 outlines recommended practices and implementation considerations for ESD.²

1. Ministry of Health and Long Term Care, Quality Based Procedures: Clinical Handbook for Stroke, March 2013 (Updated September 2013). http://health.gov.on.ca/en/pro/programs/ecfa/docs/gbp_stroke.pdf

2. Health Quality Ontario; Ministry of Health and Long-Term Care. Quality-based procedures: clinical handbook for stroke (acute and postacute). Toronto: Health Quality Ontario; 2015 February. 148 p. Available from: <http://www.hqontario.ca/Portals/0/Documents/eds/clinical-handbooks/community-stroke-20151802-en.pdf>

3) 2013 Annual Report: Office of the Auditor General Chapter 3: Rehabilitation Services at Hospitals

“Approximately one-third of patients admitted to inpatient rehabilitation at the two hospitals we visited with stroke programs had been assessed by an acute hospital as having mild functional impairment. This suggests that they might have been better served in outpatient programs if these less costly services were available. Further, the Ontario Stroke Network reported in 2012 that implementation of best practices related to stroke, such as serving people with mild functional impairment in an outpatient setting, would have a positive impact on patient outcomes while resulting in savings of about \$20 million per year.”

2013 Annual Report: Office of the Auditor General
http://www.auditor.on.ca/en/reports_en/en13/308en13.pdf

4) Caring For Our Aging Population and Addressing Alternate Level of Care

“LHINs and other jurisdictions have found that providing a period of assessment and restoration/rehabilitation, preferably in a post-acute care environment, allows for a far more appropriate determination of the patient’s needs and progress towards recovery.”

Walker D. Caring For Our Aging Population and Addressing Alternate Level of Care, Report to the MOHLTC, 2011
http://www.health.gov.on.ca/en/common/ministry/publications/reports/walker_2011/walker_2011.pdf

5) The Impact of Moving to Stroke Rehabilitation Best Practices in Ontario

“Equitable and timely access to intensive outpatient and/or community rehabilitation presents a significant challenge in Ontario, yet enhancement in this sector offers the greatest opportunity for improving patient flow.”

“Based on 2010 Ontario data from the National Rehabilitation Reporting System (NRS), it is estimated that 16,927 inpatient rehabilitation bed days could be made available by eliminating or reducing LOS through enhancing outpatient/community rehabilitation and greater therapy intensity.” These bed day savings will provide greater capacity in inpatient rehabilitation to meet the target of admitting 44% of all stroke; ultimately improving flow from acute.

Meyer M, O’Callaghan C, Kelloway L, Hall R, Teasell R, Meyer S, Allen L, Leci, E. (2012) In collaboration with Ontario’s Stroke Reference Group. The impact of moving to stroke rehabilitation best practices in Ontario. Final Report.
http://ontariostrokenetwork.ca/pdf/The_impact_of_moving_to_stroke_rehabilitation_best_practices_in_Ontario_OS_N_Final_Report_Sept_14_2012.pdf

6) Canadian Best Practice Recommendations for Stroke Care 2013

“There is a marked lack of outpatient and community-based rehabilitation resources available. Therefore, the health system should aim to provide the following:

- Timely access to stroke rehabilitation services in the community following discharge.
- Organized and accessible stroke care in communities.
- Increased number of skilled clinicians who have experience practicing in outpatient and community rehabilitation.
- Stroke rehabilitation support for caregivers.

Dawson AS, Knox J, McClure A, Foley N, and Teasell R, on behalf of the Stroke Rehabilitation Writing Group. Chapter 5: Stroke Rehabilitation. In Lindsay MP, Gubitz G, Bayley M, and Phillips S (Editors) on behalf of the Canadian Stroke Best Practices and Standards Advisory Committee. Canadian Best Practice Recommendations for Stroke Care: 2013; Ottawa, Ontario Canada: Heart and Stroke Foundation and the Canadian Stroke Network.
<http://www.strokebestpractices.ca/index.php/stroke-rehabilitation/outpatient-and-community-based-stroke-rehabilitation-including-esd/>

7) Ontario Stroke Evaluation Reports (2013¹, 2014²) available at www.ices.on.ca

“There is ongoing opportunity to improve patient flow. Although there is a trend toward greater access to rehabilitation for the severely disabled stroke survivor, options remain limited. These factors, along with limited community-based rehabilitation services, limit patient flow and outcomes, contributing to high ALC rates.”¹

“All CCAC services to patients with stroke or TIA declined over time, with the exception of personal support and homemaker services.”²

“In addition, service levels are low: an average of 6 visits from all therapies over a 60-day period, with the first visit occurring, on average, more than 2 weeks after discharge from hospital.”¹

“The Ontario Stroke Network has recommended 2 to 3 community-based rehabilitation visits per week (per required discipline) for 8 to 12 weeks, but current data indicate that patients receive only 3 to 5 CCAC rehabilitation visits over an eight-week period.”²

Inpatient rehabilitation LOS for persons with mild stroke exceeds the target (by 14 days for RPG 1160 and 12 days for RPG 1150). The rehabilitation needs of patients classified with “mild stroke” could be met in the community with access to an appropriately resourced ESD, reducing the need for admission to more costly inpatient rehabilitation services.¹

“For the RPGs representing mild disability, best-practice targets for length of stay in rehabilitation had been set. As recommended, patients in RPG 1160 were not expected to be receiving inpatient rehabilitation. The best practice expected length of stay for RPG 1150 was 7.7 days, and no LHIN met this target in 2012/13.”²

1. Hall R, Khan F, O’Callaghan C, Kapral MK, Hodwitz K, Kapila S, Li S, Zhou L, Bayley M. Ontario Stroke Evaluation Report 2013: Spotlight on Secondary Stroke Prevention and Care. June 2013

<http://www.ices.on.ca/Publications/Atlases-and-Reports/2013/Ontario-Stroke-Evaluation-Report-2013>

2. Hall R, Khan F, O’Callaghan C, Kapral MK, Levi J, Cullen A, Wu J, Fang J, Bayley M. Ontario Stroke Evaluation Report 2014: On Target for Stroke Prevention and Care. Toronto, ON: Institute for Clinical Evaluative Sciences; 2014.

<http://www.ices.on.ca/Publications/Atlases-and-Reports/2014/Ontario-Stroke-Evaluation-Report-2014>

8) Ontario Stroke Report Card, (year) LHIN (your #)

www.ices.on.ca

Example - Recent data indicate a low proportion (2.4%) of patients in the XXX LHIN discharged from acute care received a referral for outpatient therapy. Furthermore, stroke clients referred to CCAC receive consultative service only with a mean level of 5.4 visits.

9) Effectiveness of an early supported discharge service for patients hospitalized after stroke

“An early supported discharge service is effective in reducing death, institutionalization, and length of hospital stay. In this study, team co-ordination and delivery were found to be the optimal modes of delivery. No difference was found in overall mortality between those patients who received early supported discharge and those who received usual care.”

Health Quality Ontario. Effectiveness of an early supported discharge service for patients hospitalized after a stroke episode: a special report [Internet]. Toronto: Queen’s Printer for Ontario. 2014 April. Available from:

<http://www.hqontario.ca/Portals/0/Documents/eds/special-reports/eba-early-supported-discharge-140417-en.pdf>

2. Project Details

a) **Project Description** – Refer to *Early Supported Discharge - Core Elements* document

- **Can use the core elements document to write a project description specific to the region and proposed model, or submit as an appendix.**

When selecting a model consider:

- Importance of having a key worker within the ESD team with a strong affiliation with the inpatient team: Key components contributing to favourable outcomes include: in-hospital and discharge planning: a case manager or key worker based in the stroke unit who constituted the link between the stroke unit and the ESD team.

Fisher RJ, Gaynor C, Kerr M, Langhorne P, Anderson C, Bautz-Holter E, Indredavik B, Mayo NE, Power M, Rodgers H, Ronning OM, Holmqvist LW, Wolfe CDA, Walker MF. A Consensus on Stroke Early Supported Discharge. Stroke. 2011;42(5):1392-1397

- Note that staffing requirements will vary according to several factors: severity and complexity of stroke impairments, the current level of community support, duration of the rehab input (therapeutic intervention) and the rehabilitation targets planned.

Langhorne P, Jepsen BG, Larsen T. Early home-supported discharge after stroke: a brief report on the practical implementation. Int J Rehab Res 2014;37:192-194.

- Anticipated numbers served by an ESD team – One source estimates that approximately 13% of patients discharged directly home from acute care and 100% of those discharged from inpatient rehabilitation require some form of rehabilitation in the community¹. This will vary based on other resources/ programs available within the region and further development of evidence.
- S-LP staffing complement may need to be higher than the 0.4 FTE recommended as estimates indicate that 50% of Outpatient or community-based rehabilitation candidates in Ontario will need S-LP.¹
- To distinguish those who qualify for outpatient vs in-home specialized stroke services, it is commonly recommended that patients living within a 30 minute drive be identified as outpatient rehabilitation candidates, while patients living beyond a 30 minute drive be identified as community-based rehabilitation candidates. However, since transportation can be a significant barrier from the patient perspective, some programs have also offered in-home services to those within a 30 minute drive who do not have the tolerance for travel or are unable to access transportation (e.g. SW LHIN and WW LHIN).¹

- **Existing programs may be able to provide an estimate, from their database, of the numbers/percentages falling into each category.**

1. Meyer M, O'Callaghan C, Kelloway L, Hall R, Teasell R, Meyer S, Allen L, Leci, E. (2012) In collaboration with Ontario's Stroke Reference Group. The impact of moving to stroke rehabilitation best practices in Ontario. Final Report. http://ontariostrokenetwork.ca/pdf/The_impact_of_moving_to_stroke_rehabilitation_best_practices_in_Ontario_OS_N_Final_Report_Sept_14_2012.pdf

- Experience from the Calgary ESD Model suggests that the OT requirements may also need to be enhanced beyond the 1.0 recommendation as this discipline is usually required by all ESD candidates. It was also identified that therapy assistants and recreation therapy are essential team members.

b) Anticipated Outcomes

The effectiveness of ESD services following acute stroke has been rigorously evaluated. The Cochrane Review (2012) reports that patients recovering from mild strokes who received ESD services returned home earlier and were more likely to remain at home and regain independence in daily activities compared with patients who received a course of inpatient rehabilitation. The ESD groups showed significant reductions in the length of hospital stay, equivalent to approximately seven days. There were no statistically significant differences seen in carers' subjective health status, mood or satisfaction with the ESD services.

Fearon P, & Langhorne P. (2012). Early supported discharge trialists: Services for reducing duration of hospital care for acute stroke patients. Cochrane Database of Systematic Reviews, Issue 9.

Proposed Impact on System

- earlier discharge from inpatient settings
- reduced dependence on hospital services
- integrated model of care across the continuum
- more efficient, cost effective rehabilitation system
- more discharges home with reduced long term reliance on the health care system resulting in cost savings
- coordinated, interprofessional care that optimizes utilization of health human resources
- improved system navigation and integration of services between hospitals, primary care, CCAC, community support services and LTC homes
- adoption of best practices and capacity building
- specialized services available in the setting that best meets the clients' needs

Proposed Impact on Patient Experience

- timely access to appropriate care and service
- improved functional outcomes
- individualized management of secondary prevention and health promotion strategies and reintegration into the community
- support provided to caregivers through specialized team services
- increase in client and family satisfaction with services and quality of life

c) Strategic Alignment

Assumptions going forward:

Strong Senior Leadership support
Align with Rehabilitative Care Alliance work
Continue to align with Quality Based Procedures

Align with Canadian Best Practice Recommendations for Stroke Care
Commitment from system partners

- **Indicate expected impact on LHIN strategic directions: use more overarching strategic direction eg QBPs, align with CCAC, Stroke Prevention Clinics**

- **Improved access to care/ Impact on ED ALC**

Example - Access to rehabilitation services for persons with stroke living in the community has been identified as a significant gap in the XXX LHIN for many years. Implementation of an Early Supported Discharge Team for stroke will increase access to rehabilitative care services in the community improving transitions out of hospital and returning patients to their home earlier. By shortening the hospital length of stay, system capacity in both acute care and inpatient rehabilitation will be increased. Furthermore, patients who received these services were more likely to remain at home in the long term, reducing demand on limited LTC beds.

2006 Stroke Evaluation Report: Summary of Findings and Implications for the Erie St. Clair LHIN

- **Improved quality enhancements**

“Early supported discharge and outpatient/community rehabilitation are essential components of best practice stroke care to achieve optimal outcomes and efficiencies.”

Example - The ESD Working group, in partnership with the XXX LHIN and Rehabilitation Strategic Plan Implementation Committee has collaborated to develop an evaluation system that will collect and analyze meaningful metrics/outcome indicators to ensure best practice targets are achieved.

Ministry of Health and Long Term Care, Quality Based Procedures: Clinical Handbook for Stroke, March 2013 (Updated September 2013. http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf

- **Improved cost effectiveness/fiscal responsibility**

The Auditor General in 2013 reported that “approximately one-third of patients admitted to inpatient rehabilitation at the two hospitals we visited with stroke programs had been assessed by an acute hospital as having mild functional impairment. This suggests that they might have been better served in outpatient programs if these less costly services were available. Further, the Ontario Stroke Network (2012) reported that implementation of best practices related to stroke, such as serving people with mild functional impairment in an outpatient setting, would have a positive impact on patient outcomes while resulting in savings of about \$20 million per year.”

*2013 Annual Report: Office of the Auditor General. Chapter 3: Rehabilitation Services at Hospitals
http://www.auditor.on.ca/en/reports_en/en13/308en13.pdf*

- **Improved system coordination/integration**

“Equitable and timely access to intensive outpatient and/or community rehabilitation presents a significant challenge in Ontario, yet enhancement in this sector offers the greatest opportunity for improving patient flow.”

Developing a coordinated process of discharge planning with strong linkages across programs, including primary care, CCAC and community support services, is a key element of this project, and will ensure community navigation and reintegration for these clients.

*Meyer M, O’Callaghan C, Kelloway L, Hall R, Teasell R, Meyer S, Allen L, Leci, E. (2012) In collaboration with Ontario’s Stroke Reference Group. The impact of moving to stroke rehabilitation best practices in Ontario. Final Report.
http://ontariostrokenetwork.ca/pdf/The_impact_of_moving_to_stroke_rehabilitation_best_practices_in_Ontario_OSN_Final_Report_Sept_14_2012.pdf*

- **Chronic Disease Management** - Stroke is a vascular condition that results in multiple and complex disabilities. Team must have advanced skills in risk assessment and management. Close partnerships with chronic disease management programs, vascular clinics, primary care, stroke day programs and stroke survivor groups are recommended.

d) **Evaluation**

- **Consider adding any current performance or baseline data to support proposed evaluation plan**
- **The following 2 reports are included in this section to discuss baseline data, potential. Add in LHIN specific information**

Ontario Stroke Evaluation Report 2013

“There is ongoing opportunity to improve patient flow. Although there is a trend toward greater access to rehabilitation for the severely disabled stroke survivor, options remain limited. These factors, along with limited community-based rehabilitation services, limit patient flow and outcomes, contributing to high ALC rates.”

“The proportion of home care provided by CCACs to stroke/TIA patients receiving rehabilitation services has decreased by more than 5%. In addition, service levels are low: an average of 6 visits from all therapies over a 60-day period, with the first visit occurring, on average, more than 2 weeks after discharge from hospital.”

Inpatient rehabilitation LOS for persons with mild stroke exceeds the target (by 14 days for RPG 1160 and 12 days for RPG 1150). The rehabilitation needs of patients classified with “mild stroke” could be met in the community with access to an appropriately resourced ESD, reducing the need for admission to more costly inpatient rehabilitation services.

Hall R, Khan F, O’Callaghan C, Kapral MK, Hodwitz K, Kapila S, Li S, Zhou L, Bayley M. Ontario Stroke Evaluation Report 2013: Spotlight on Secondary Stroke Prevention and Care. June 2013
http://www.ices.on.ca/webpage.cfm?site_id=1&org_id=31&morg_id=0&gsec_id=0&item_id=8278

Ontario Stroke Report Card, (year) LHIN (your #)

Example - Recent data indicate a low proportion (2.4%) of patients in the XXX LHIN discharged from acute care received a referral for outpatient therapy. Furthermore, stroke clients referred to CCAC receive consultative service only with a mean level of 5.4 visits.

- **The Ontario Stroke Network (OSN) currently collects key indicators for stroke care and can provide CIHI administrative data upon request. The Ontario Stroke Evaluation Report and LHIN Stroke Report Cards are published annually and are available at www.ices.on.ca**

Proposed Key Indicators

1. Access – Proportion of stroke/TIA patients discharged from hospital that are referred to ESD services
2. Timeliness – Proportion of stroke/TIA patients that start ESD within 48 hours of discharge from acute care and 72 hours from inpatient rehabilitation

3. Intensity – Average # of minutes of therapy/day received by stroke patients for each of OT, PT, and S-LP
4. Clinical Outcomes – Proportion of patients achieving their rehabilitation goals using the Canadian Occupational Performance Measure; Change in score on the Reintegration to Normal Living Index (RNLI) (participation measure).

Additional information regarding recommended indicators and data elements can be found in the *Early Supported Discharge - Core Elements* document under the evaluation section.

Insert information from this document, or refer to it as an Appendix.

Evaluation of ESD will address the areas of patient/caregiver experience, clinical outcomes, access and transition as well as financial performance.

- Patient/caregiver experience
e.g. Patient/caregiver satisfaction, caregiver burden/stress/strain, patient/caregiver goal achievement
- Clinical outcomes
e.g. Change in functional status, degree of dependence, subjective health status score/quality of life, mood, participation, activities of daily living (ADL) ability, rates of institutionalization
- Access and transition
e.g. proportion of discharged from hospital referred to ESD service, proportion of patients admitted to ESD (of those referred), proportion of stroke/TIA patients that start ESD within 48 hours of discharge from acute care and 72 hours from inpatient rehabilitation, rehabilitation intensity – average # of minutes of therapy/day received for each of OT, PT, and S-LP, readmission rates
- Financial performance
e.g. Cost of ESD (success would be indicated by the annual cost of the ESD team being less or equal to the annual savings made by reduction in LOS in hospital)

– cost savings can be achieved from decreased acute and rehab LOS, decreased LTC admissions within year, decreased hospital readmissions
– financial impact should be assessed from 3 perspectives: patient-level direct care costs, organizational program costs, and health system costs

3. Dependencies, Interdependencies and Risk

- a) **Dependencies** - need for specialized stroke team care

Specialized stroke care has been defined in other settings as “at least 80% of the case load of each of the core therapists (physiotherapist, occupational therapist, and speech language therapist) confined to individuals with stroke”

Foley N, Meyer M, Salter K, Bayley M, Hall R, Liu Y, Willems D, McClure JA, Teasell R.(2013) Inpatient stroke rehabilitation in Ontario: are dedicated units better? International Journal of Stroke,8:430-435.

Team care requires multiple interprofessional members with stroke expertise whose work is coordinated through regular team meetings.^{1,2}

1. Dawson AS, Knox J, McClure A, Foley N, and Teasell R, on behalf of the Stroke Rehabilitation Writing Group. Chapter 5: Stroke Rehabilitation. In Lindsay MP, Gubitz G, Bayley M, and Phillips S (Editors) on behalf of the Canadian Stroke Best Practices and Standards Advisory Committee. *Canadian Best Practice Recommendations for Stroke Care: 2013*; Ottawa, Ontario Canada: Heart and Stroke Foundation and the Canadian Stroke Network.
<http://www.strokebestpractices.ca/index.php/stroke-rehabilitation/outpatient-and-community-based-stroke-rehabilitation-including-esd/>

2. Lindsay MP, Gubitz G, Bayley M, Hill MD, Davies-Schinkel C, Singh S, Phillips S. *Canadian Best Practice Recommendations for Stroke Care (Update 2010)*. On behalf of the Canadian Stroke Strategy Best Practices and Standards Writing Group. 2010; Ottawa, Ontario Canada: Canadian Stroke Network.

b) Interdependencies and Integration of Services

Collaborative links with other services in the region is identified as a key facilitator for ESD.⁵ The purpose of the ESD service and its position in the continuum of stroke care must be understood by cross continuum health service providers to facilitate effective collaboration. Consider the following *interdependencies* and how to build collaborative links in your region:

Acute care and ESD - facilitates the identification of patients appropriate for referral to ESD; increases timeliness of transfer to ESD (shortens LOS in acute care).¹

Existing stroke rehabilitation providers and ESD – enables capacity planning for rehab services in the region or system. The introduction of ESD may result in decreased demand for existing inpatient or outpatient stroke rehab services.

Community support services (CSS) and ESD – facilitates timely discharge from the ESD program; allows the CSS to anticipate demand for their services.¹ This relationship is also important from the patient and carer perspective. Patients and carers reported dissatisfaction with transitions along the continuum of stroke care, specifically from ESD to further rehabilitation services.²

The Local Health Integration Network (LHIN) and ESD service will be interdependent in the sense that the success of the ESD will advance the mandate of LHIN, which is to deliver integrated healthcare services. Financial investment from the LHIN may be required to start the ESD.

1. Chouliara, N., Fisher, R. J., Kerr, M., Walker, M. F. (2014). *Implementing evidence-based stroke Early Supported Discharge services: A qualitative study of challenges, facilitators and impact*. *Clinical Rehabilitation*, 28(4), p.370-377.

2. Copley, C. S., Fisher, R. J., Chouliara, N., Kerr, M., Walker, M. F. (2013). *A qualitative study exploring patients' and carers' experiences of Early Supported Discharge services after stroke*. *Clinical Rehabilitation*, 27(8), p. 750-757.

c) Risks

*Consider risks within the network based on geography, population etc.

Risk	Mitigation Strategy
Program developed in isolation increasing risk of chronic disease, mortality, and disability; higher potential years-of-life-lost rate.	Stroke is a vascular condition that results in multiple and complex disabilities. Team must have advanced skills in risk assessment and management. Close partnerships with chronic disease management programs, vascular clinics, primary care, stroke day programs and stroke survivor groups
Underfunding resulting in wait times will negate benefits and result in system failure (flow, ALC)	Teams must be well-resourced with clear flow processes and linkages in place to meet demand.
Inability to positively change patient outcomes.	Teams must be effectively resourced by a team with stroke expertise to meet best practice recommendations and/ or QBP Standards. Monitor outcomes for ongoing quality improvement.
Risk to clients of poor experience and outcomes in transitioning across multiple providers.	Example - Team affiliated with District/Regional Stroke Centre and able to share providers across programs, providing seamless care transitions from hospital to home to outpatient service and if appropriate to community programs . Creation of a partner engagement strategy and timely communication of issues.
Risk of reduced model efficiencies related to host organization capacity.	The reduction in length of hospital stay was more marked in the hospital out-reach group (MD 10 days, 95% CI 1 to 18) than the community in-reach group (MD 4 days, 95% CI 1 to 7). <i>Fearon P, Langhorne P, Early supported discharge trialists. (2012) Services for reducing duration of hospital care for acute stroke patients. Cochrane Database of Systematic Reviews, Issue 9. Page 13.</i>
Inefficiency of staffing a smaller, specialized program; poor sustainability of staffing, coverage of vacancies; lack of health human resources.	Example - Integration with existing services promotes sustainability. Team affiliated with District/Regional Stroke Centre and able to share providers across programs (inpatient, in-home, outpatient); allowing more efficient use of part-time equivalents and flexibility re coverage. Continual strong senior leadership support.
Implementation reliant on combining resources with existing outpatient services.	Inventory of existing outpatient resources for stroke and engagement of hospital and community partners.
Focus on episodic care	Ensure clients are connected to ongoing services (day programming, wellness, family health team) upon discharge from team services, and team resourced to provide follow-up and/or consultative services for any changes in condition
ESD team challenges in maintaining stroke expertise	Ensure staff assigned to ESD team are assigned 80% stroke patients in caseload

d) Factors to consider for Sustainability

- **Refer to the benefits over time, refer to the evaluation measures and how they will show improvement**
 - Change will be value added and follow Continuous Quality Improvement principles, i.e. Plan Do Study Act (PDSA) cycles.
 - Prior to full implementation, initial testing will be done as a pilot and evaluated.
 - Ongoing review of the ESD literature
 - Staff will be engaged in the design and implementation of the new program.
 - The regional stroke network or designate will support staff training and development.
 - A team coordinator is needed to ensure that the new program is effective and that change is sustained.
 - Responsible organizational members and external partners will demonstrate support for the project's goals and implementation (including space and other in-kind contributions).
 - In order to sustain services, funding will consider ongoing cost of living increases and adjust to service demands.
 - Link with QBP Phase 2 funding opportunity, as available

4. Strategic Options Analysis and Recommendations

- **This is where to describe the model/option that your Network decides**
- a) Options – Describe the full spectrum of options that were considered for addressing the identified challenge or opportunity
- b) Recommendations – Based on factors such as regional resources, operational impact, effectiveness, risk and cost, choose a recommended option

5. High Level Schedule/ Work Plan/ Implementation Timelines

- **This will be individual per region**
- **Consider listing steps already taken e.g. community engagement**

6. Budget

- **Will depend on model that has been selected**

Parameters include:

- staffing costs (clinical, administrative assistant and coordinator) – consider backfill for vacation coverage, sick time
- travel costs
- start-up costs & infrastructure (space and equipment, assessment tools, clinical equipment and telecommunications, health records storage, electronic devices e.g. iPads, tablets, stroke links, internet routers)
- printing, stationary, office equipment & supplies