

# ***British Columbia Stroke Strategy***

## ***Stroke Patient Rehabilitation and Reintegration Action Plan***



Submitted by Rehabilitation and Reintegration  
Working Group

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## 1. Introduction

The British Columbia Stroke Strategy, developed in 2005, identified the need to make changes to rehabilitation and community reintegration services for stroke patients. The Strategy identified that well over 4,000 British Columbians survived a stroke in 2004, which means that over a five-year period 20,000 or more stroke survivors will be living with varying degrees of disability in the province.

The need to improve stroke rehabilitation is widely acknowledged by rehabilitation experts, the medical health profession and by patients themselves. The current system is fragmented, disorganized, and lacks consistent and standardized approaches to patient care. A comprehensive vision and framework for improvements to patient rehabilitation and reintegration across British Columbia is required.

To develop a new approach to rehabilitation in the province, the BC Stroke Strategy Steering Committee has allocated \$150,000 to establish an Expert Panel comprised of leaders in rehabilitation. This panel will establish a common framework for delivering stroke rehabilitation and re-integration across the province. The framework will include a common set of principles, approaches and functions for improving patient rehabilitation.

## 2. Objectives

The objective of this project is to develop an approach and a strategy for improving access to stroke rehabilitation and community re-integration in British Columbia.

Successful implementation of the strategy will:

- Create a more accessible, equitable and integrated rehabilitation and reintegration system for stroke patients in British Columbia;
- Maximize the use of community resources, services and facilities in providing support to stroke patients and care providers in British Columbia;
- Build capacity for stroke rehabilitation and re-integration within health authorities.

## 3. Performance Measures

Outcomes to be achieved through improvements to stroke rehabilitation and community re-integration are outlined in the following table.

1. Inpatient stroke rehabilitation	• Discharge disposition of stroke survivors following inpatient rehabilitation: long term care facility or nursing home; home.
	• Percentage of patients with a hospital admission for stroke who receive an admission assessment for rehabilitation within 48 hours of admission.
	• Proportion of acute stroke patients discharged from acute care to inpatient rehabilitation.
2. Initial stroke rehabilitation assessment	• Median length of time between referral for outpatient rehabilitation to admission to a community rehabilitation program.
3. Components of inpatient	• Median number of days spent as 'alternative level of care' (ALC) in an acute care setting prior to arrival in an inpatient rehabilitation

rehabilitation	setting.
	<ul style="list-style-type: none"> <li>• Change in functional status scores using a standardized assessment tool from admission to an inpatient rehab program to discharge.</li> <li>• Availability of multidisciplinary coordinated rehab programs for inpatients in appropriate settings per 100,000 populations.</li> </ul>
4. Community follow-up	<ul style="list-style-type: none"> <li>• Percentage of patients readmitted to an acute care facility following discharge to the community after TIA or stroke at 1 week, 30 days, and 6 months.</li> </ul>
	<ul style="list-style-type: none"> <li>• Education – did the patient follow-up with the stroke Recovery Group of BC?</li> </ul>

## 4. Approach

An Expert Panel, comprised of representatives from each health authority, the Ministry of Health and other professionals will be established to develop recommendations for a new rehabilitation and reintegration framework for BC. The approach will bring researchers, health administrators and clinical leaders together in an open and creative dialogue to identify the current level of services, and the practices that need to be put in place to improve patient rehabilitation and reintegration in BC.

The framework will address the continuum of patient care, from the time the patient is diagnosed with a stroke, through acute care, as an outpatient and including community re-integration. Recommendations will focus on maximizing the use of community resources, as well as identifying new resources that will be required to increase capacity.

## 5. Rehabilitation and Reintegration Expert Panel

The Expert Panel will meet approximately three times over the course of the project. The Panel will be supported by research and planning staff that will be responsible for consolidating information and evaluating options for service improvement. The Panel will develop recommendations that will be presented to the BC Ministry of Health in September 2008.

Funding support will be provided to:

1. Fund a Panel facilitator;
2. Conduct research to support the analysis of issues and the development of recommendations;
3. Identify best practices;
4. Consult with health authorities and key stakeholders;
5. Evaluate options for service improvement; and
6. Produce a final report that will be submitted to the Ministry of Health.

## 6. Timeframe

The Expert Panel will initiate its work beginning in April 2008. The Panel will meet approximately three times between April 2008 and August 2008 to develop recommendations for improvements to

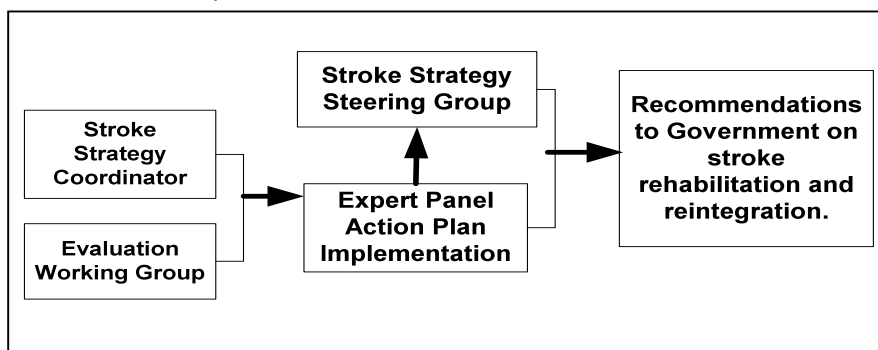
stroke rehabilitation and reintegration. A report on the process, research and recommendations will be completed by the end of August for presentation to government.

## 7. Project Management

The Stroke Strategy Coordinator will be responsible for managing the development and implementation of recommendations for improving stroke rehabilitation and reintegration in BC. The Coordinator will report to the Stroke Strategy Steering Group.

The Coordinator will:

- Work with the health authorities to establish the Expert Panel;
- Establish clear guidelines for budget expenditures, including reimbursement of salaries and expenses for the Expert Panel and Working Group participants;
- Retain an Expert Panel facilitator and the necessary consultants for strategy development;
- Develop a dictionary of terminology;
- Keep the Steering Group informed of progress;
- Oversee the organization and management of Expert Panel meetings, including establishing and managing the meetings, and coordinating document distribution and reporting;
- Manage communications for aspects of stroke strategy implementation;
- Provide links to other priority stroke strategy initiatives including:
  - a. Ensuring that performance measures are accurate and attainable; and,
  - b. Developing telehealth applications for rehabilitation and counseling.



The Expert Panel will be responsible for developing a comprehensive report on the process and the recommendations for province-wide improvements to stroke rehabilitation and reintegration.

## 8. Implementation Tasks

In developing recommendations for stroke rehabilitation and reintegration, the Expert Panel will undertake the following work:

### Task 1: Establish the Expert Panel

The Expert Panel will be established immediately following approval of the Action Plan in April. Each health authority will be asked to designate up to five representatives, with participation from the following areas:

- Physiatrist
- Physiotherapist
- Occupational therapist

- Speech language therapist
- Health care management
- Rehabilitation nurse
- Patient advocate
- Ministry of Health representative
- Provincial Health Services Authority representative

The Panel will have up to 25 members, along with a facilitator and support staff. Panel members will be remunerated according to an approved funding model. An experienced facilitator with health-related experience will chair the Panel, which will meet approximately three times as follows:

Meeting	Date (Approximate)	Discussion Topics
Meeting 1: Current Situation	May 07, 2008	<ul style="list-style-type: none"> <li>• Terms of reference</li> <li>• Best practices review</li> <li>• Framework</li> <li>• Direction on additional research and strategic areas</li> </ul>
Meeting 2: Issues and Options	June 22, 2008	<ul style="list-style-type: none"> <li>• Innovations and situation analysis</li> <li>• Issues and options for improving stroke rehabilitation and reintegration</li> <li>• Initial recommendations on preferred directions for additional analysis.</li> </ul>
Meeting 3: Recommendations	July 23, 2008	<ul style="list-style-type: none"> <li>• Develop recommendations on preferred directions.</li> </ul>

Resource Requirements	<ul style="list-style-type: none"> <li>• Stroke Coordinator to manage setup</li> <li>• Each health authority and organization to nominate participants</li> <li>• Facilitator retained to manage meetings</li> <li>• Additional support to coordinate meeting setup, venue and logistics.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Established Expert Panel</li> <li>• Change management advocates</li> <li>• Direction setting for improvements to rehab and re-integration</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Establish in April 2008</li> <li>• Operates until September 2008</li> </ul>

## Task 2: Best Practices Consolidation

Best practices will be consolidated for reference in addressing the gaps in stroke rehabilitation and reintegration in British Columbia. Significant work has been completed in this area, including the recent Evidence-Based Review of Stroke Rehabilitation (EBRSR). The consolidation will identify best practices for:

- Patient triage and treatment requirements including standardized timelines for treatment for in-patient and out-patient programs, dosage, and wait times for community reintegration;

- Determining priorities for patient treatment including levels of treatment for patients with varying degrees of disability; and
- Identifying patient self-management models that build on successes in other areas of chronic disease management.

Resource Requirements	<ul style="list-style-type: none"> <li>• Consultant researcher retained to consolidate findings and to prepare a brief report.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Outline of best practices that can be assessed against the gaps.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Complete in mid May.</li> </ul>

### Task 3: Develop the Strategic Framework

The Expert Panel will establish a clear statement of objective(s) to be achieved through a new approach to stroke rehabilitation and reintegration, along with a set of guiding principles that will govern what an integrated system should strive to achieve (e.g., patient-centered, continuum of services, community-based, etc.). The framework will also identify:

- A clear definition of rehabilitation and reintegration services;
- The target patient group(s) for rehabilitation and reintegration services; and
- The need for flexibility at the health authority level to implement province-wide recommendations.

Resource Requirements	<ul style="list-style-type: none"> <li>• Consultant to prepare a draft framework for review by the Expert Panel.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Approved framework, including common principles and components for a provincial rehab and re-integration strategy.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Initiate in April 2008 and complete in mid May.</li> </ul>

### Task 4: Innovation in Stroke Rehabilitation and Reintegration

A community-based approach to stroke rehabilitation has been identified as a priority consideration for BC. Examples include the use of community facilities for rehabilitation, support from community agencies and organizations, and assessing models such as the 'community stroke care service' within the Winnipeg Regional Health Authority and the community-based approach used in the Calgary Health Region. Research will be conducted on innovations and summarized in a brief report for the Expert Panel.

This task will also include research and reporting on approaches to rehabilitation and reintegration for patients with other chronic conditions, cardiac care and dementia among others. The application of models of care from other health conditions will be assessed for stroke.

Resource Requirements	<ul style="list-style-type: none"> <li>• Consultant researcher retained to consolidate findings on innovations in rehabilitation and re-integration.</li> <li>• Input from MOH, SRA and experts in rehab and re-integration</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Summary report on innovations.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Initiate in April 2008 and complete in mid May</li> </ul>

## Task 5: Situation Analysis

The collaborative requires an overview of available stroke rehabilitation and reintegration resources across the province and within each health authority. This will involve a scan of inpatient and outpatient interdisciplinary programs, including innovative community based programs.

In assessing the current situation and to conduct a proper evaluation, it is important to establish a common understanding of definitions for components of a comprehensive rehabilitation and reintegration program. This includes consistent definitions of what constitutes:

- In patient rehab beds
- Acute rehabilitation assessment
- Outpatient stroke rehab
- Community stroke rehab

A baseline, stroke rehabilitation and reintegration characterization framework will be developed and used to assess the current situation in each health region. This will include the following components:

1. Stroke Services Characterization Framework may include the following:  
A macro-level inventory of rehabilitation and reintegration resources could be developed for each health authority. This may include an assessment of:
  - a. Who is responsible for stroke rehabilitation and reintegration services within the province and each health authority (overview);
  - b. Identification of who is providing rehabilitation and reintegration services in health regions; and
  - c. Identification of policies, procedures, practices and infrastructure that pose access barriers.
2. Inventory of stroke Services
  - a. In patient Rehab Beds
    - Number of IP rehab beds
    - Resources allocated to those beds (e.g., number of physios, OT, SLP for the unit or Therapist / Patient ratio, therapist FTE's etc.)
    - Admission and discharge criteria
  - b. Outpatient Stroke Rehab Program:
    - Number of hospital based outpatient programs available
    - Resources allocated to these programs
  - c. Community Stroke Rehabilitation Program
    - Availability of stroke community support (e.g., SRA sites, LM Brain Injury club)
    - The number of stroke patients that are served by these agencies
    - Presence of peer support groups, self management programs
    - Availability of educational programs to stroke survivors/ care givers

- Use of private resources - perhaps in the form of a brief survey of stroke recover group members in the health authority on their usage of private therapies
3. Strategic Issues Influencing Rehab/reintegration:
- Based on the profiles of patients and current services, priority issues that need to be considered in developing a province-wide approach will be identified. These may include:
- a. Identifying priorities for patient rehabilitation support
  - b. Re-defining the starting point and transition points for patient rehab
  - c. The role of community organizations/agencies for providing support and services
  - d. Resourcing, including accessing private health care services (e.g., physiotherapists)
  - e. The need for system-level changes within government
  - f. The use of technology for rehab (e.g., telehealth applications)
  - g. Improving the education of the rehab patient, caregiver and primary care physician.

The situation analysis will provide a 'snapshot' of the current gaps, challenges and opportunities in stroke rehabilitation and reintegration. Along with an understanding of best practices and innovation, it will inform Expert Panel recommendations for improving stroke rehabilitation and reintegration in BC.

Resource Requirements	<ul style="list-style-type: none"> <li>• Health Authority and MOH consolidation of data for analysis by consultants supporting the Expert Panel.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Summary information on the patient profile, stroke services, related initiatives and key issues for Expert Panel review.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Initiate in April 2008 and complete in mid May in time for the second expert panel meeting.</li> </ul>

### **Task 6: Rehabilitation and Reintegration System Improvements**

The rehabilitation and reintegration system has a number of key components that can be improved through an assessment of best practices and innovation. Planning support will assist the Expert Panel in reviewing options to improve access to, and delivery of, patient services. Components that may be considered for improvement could include improving access to patient services, screening and referral mechanisms, patient assessment and classification, coordinating services, monitoring, evaluation and patient follow-up.

Planning support will also be required to evaluate draft recommendations to government on improvements to stroke rehabilitation and reintegration. This will include using best practices and the results from other studies to help determine the cost/benefit of the options and the Expert Panel recommendations.

Analysis of the options and recommendations will be done from both the provincial and health region perspectives. Equally important however, will be the perspective of the caregiver because of the implications of community-base care and the burden that could be placed on family, friends and community care services. A patient advocate will be a member of the Expert Panel, and will help to provide this perspective.

Resource Requirements	<ul style="list-style-type: none"> <li>• Planning support to evaluate recommendations.</li> <li>• Input from experts in rehab and re-integration who have conducted related analysis.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Cost benefit outputs for recommendations.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Initiate in July 2008 and complete in August 2008.</li> </ul>

### Task 7: Evaluation and Monitoring

The Evaluation Subcommittee has recommended 22 indicators for evaluating progress on the implementation of the stroke strategy. Recommended indicators for stroke rehabilitation and reintegration need to be reviewed, updated as required, and a data collection and reporting system implemented. The Evaluation Working Group will take responsibility for finalizing the evaluation program for all stroke strategy initiatives, and for baseline data collection. Specific tasks that will be implemented in consultation with the Evaluation Working Group include:

- a. Review and update the list of indicators recommended by the Evaluation Subcommittee (as required); Consider a shorter list of indicators for rehab/reintegration that can be used as baseline measures.
- b. Link data requirements with the Evaluation Working Group and confirm a program of data gathering.
- c. Collect and consolidate baseline data on stroke rehabilitation and re-integration.

Resource Requirements	<ul style="list-style-type: none"> <li>• Evaluation Working Group linkage to confirm indicators and to setup baseline data collection.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>• Concise set of performance measures for rehab/re-integration</li> <li>• Baseline information on current performance.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>• Initiate in June; complete baseline data collection by August 2008</li> </ul>

### Task 8: Recommendations for Improving Rehabilitation and Reintegration in BC

This task will focus on the development of a report summarizing the results of the planning process, and providing detailed recommendations and an implementation plan for improving stroke rehabilitation and reintegration throughout the province. The report will also have an action plan and a budget for implementation. This will form the basis for a request to government for support for improvements to stroke rehabilitation and reintegration.

The report and the recommendations will require the support of the Working Group, the Stroke Strategy Steering Group and the health authorities.

Resource	<ul style="list-style-type: none"> <li>• Planning support to consolidate the report.</li> </ul>
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Requirements	<ul style="list-style-type: none"> <li>Input from the Panel members.</li> </ul>
Deliverables	<ul style="list-style-type: none"> <li>Report and recommendations on a common framework for improving stroke rehabilitation and re-integration in BC.</li> </ul>
Timeline	<ul style="list-style-type: none"> <li>Begin building the report in July 2008 and complete in September 2008.</li> </ul>

## 9. Responsibilities

Heart and Stroke Foundation of BC & Yukon	Health Authorities	Ministry of Health	Stroke Recovery Association of BC
<ul style="list-style-type: none"> <li>Establish Stroke Coordinator Position to oversee the work program.</li> <li>Manage funding.</li> <li>Guide implementation of the work plan.</li> </ul>	<ul style="list-style-type: none"> <li>Participate actively in the Expert Panel.</li> <li>Collect data on indicators and current services.</li> <li>Co-fund participation of staff.</li> </ul>	<ul style="list-style-type: none"> <li>Participate actively in the Expert Panel.</li> <li>Provide data on indicators and current services.</li> <li>Fund participation of staff in the process.</li> </ul>	<ul style="list-style-type: none"> <li>Participate actively in the Expert Panel.</li> <li>Contribute information on current services and the role of community agencies.</li> </ul>

## 10. Budget

The implementation budget is summarized in Table 1. Expert Panel costs include the meeting venues, food, logistics, and travel and salary allocations. The cost of the Expert Panel can be substantially reduced by Health Authorities agreeing to cover all or a portion of their staff salary costs to participate in the meetings.

	Implementation Activity	Budget
1.0	Best Practices Consolidation	\$5,225
2.0	Expert Panel - Participants, Facilitator and Staff	\$87,890
2.1	Facilitator - 3 full day meetings plus 2 days for each to prep and followup.	\$10,850
3.0	Strategic Framework	\$2,325
4.0	Innovations Research	\$9,450
5.0	Evaluation and Monitoring - Contribution to data gathering	\$4,025
6.0	Situation Analysis - largely done by each HA rep but consolidated by the planning team.	\$9,760
7.0	Rehab Improvements Assessment	\$15,725
8.0	Report development	\$19,175
	<b>Total Budget Estimate</b>	<b>\$164,425</b>

### 11. Schedule

Figure 3 shows the implementation timeframe, with a report and recommendations to be completed by the end of August 2008.

