

Winter Newsletter

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Greetings!

It's been a long five-plus years for the [BC Stroke Strategy](#), but in late 2010, we achieved a major milestone. The [Provincial Stroke Strategy Action Plan](#) was submitted to the provincial government and Health Authorities for review, and has been accepted!



We are now in transition mode, wrapping up the oversight and management of the strategy at the [Heart and Stroke Foundation of BC & Yukon](#) and moving it over to the [Provincial Health Services Authority](#) (PHSA). PHSA has created Stroke Services BC as the new home base for the strategy.

I would like to take the time to express my thanks and appreciation to everyone who helped make this possible. Of particular note, I would like to acknowledge Valerie Tregillus and Stephen Brown of the [Ministry of Health Services](#) who have supported the strategy since day one. We definitely would not be celebrating these major milestones today if it were not for their ongoing involvement and support.

The success of the [BC Stroke Strategy](#) is entirely due to the cooperation and close collaboration of all the partners:

- [Heart and Stroke Foundation of BC & Yukon](#)
- [Ministry of Health Services](#)
- [The Fraser Health Authority](#)
- [The Interior Health Authority](#)
- [The Northern Health Authority](#)
- [The Vancouver Coastal Health Authority](#)
- [Vancouver Island Health Authority](#)
- [Provincial Health Services Authority](#)
- [The British Columbia Ambulance Service](#)
- [The BC Stroke Recovery Association](#).

Working together, we have created a vision for stroke care that begins with awareness and prevention. We developed and tested innovative emergency and acute care processes, and have made significant inroads around rehabilitation and community reintegration. Along the way, we measured and evaluated every step, and are now formally moving this project into the public health care system.

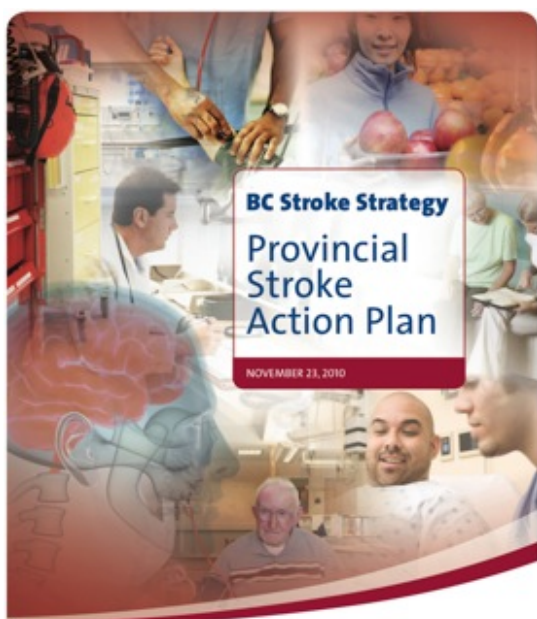
This is the last newsletter from the old [BC Stroke Strategy](#) team, which lead the prototyping and proof of concept phase. It's been an exciting and rewarding project, from start to finish. [The Heart and Stroke Foundation of BC & Yukon](#) feels privileged to have had the opportunity to play a key role in such an essential and worthwhile initiative, and we look forward to our future involvement. This work will truly make a difference.

Again, many thanks to everyone involved!

Sincerely,

[Mark Collison](#), Co-chair, [BC Stroke Strategy Heart and Stroke Foundation of BC & Yukon](#)

Provincial Stroke Strategy Action Plan



The [BC Stroke Strategy Action Plan](#) was completed on November 23, 2010 and formally submitted to the provincial government and the Health Authorities for review, decision-making and implementation.

In January 2011, the BCSS was informed by the [Ministry of Health Services](#) that the Leadership Council (made up of Health Authority CEOs) reaffirmed its commitment to moving forward on the Strategy.

Here is an excerpt from a letter that the BCSS received from the ministry shortly after the Leadership Council met on December 17, 2010:

"There continues to be strong executive support for enhancing stroke care across

the province and Provincial Health Services Authority has agreed to lead the next phase of development and implementation. As initial steps Cardiac Services BC [Provincial Health Services Authority] will be engaging senior representatives from the regional health authorities to develop a work plan for Health Operations Committee to approve as part of the current budget planning cycle. In addition, Cardiac Services BC will also be working with the stroke leads from each regional health authority to develop a detailed implementation plan for 2011-12."

The [BC Stroke Strategy Action Plan](#) outlines how specific [BC Stroke Strategy](#) initiatives would be rolled out across the province, including:

- investing in [additional clinical services](#) to follow up on Transient Ischemic Attacks (TIAs, or mini strokes) to divert or delay a full blown stroke;
- [designating acute care facilities](#) according to their capacity to provide levels of stroke care;
- organizing pre-hospital, ambulance and emergency departments to support optimal stroke care;
- expanding [Telestroke](#) across BC, which will support sites without access to stroke specialists and help contribute to a tPA-enabled health care system;
- co-horting stroke patients in designated stroke treatment units;
- providing optimal [inpatient rehabilitation care and early home-supported](#)

- [discharge and community reintegration](#), when appropriate; and
- improving human resource capacity and education for stroke care in BC.

As a direct result of these initiatives, we anticipate:

- an 80% reduction in the risk of a major stroke in those individuals who exhibit early warning signs through a TIA or minor stroke;
- eligible patients who receive tPA (the clot-busting drug) can realize an increase of 3.5 years in life expectancy while using \$3,800 less in health care resources per patient;
- a 20% reduction in the average length of an acute care hospital stay for stroke patients;
- a 20% reduction in the proportion of patients admitted to a long-term care facility following their stroke;
- an associated reduction in related co-morbidities linked to stroke such as cardiovascular disease, diabetes, renal failure and vascular dementia.

With an initial three-year investment of \$34 million, a cost avoidance break-even point would be reached in year four of the seven-year plan. If fully implemented, we expect to see the following annual improvements in health status and health system impacts:

- 250 fewer early deaths
- 3,300 life years saved
- 37,000 fewer acute care days
- 56,000 fewer residential care days.

Although Health Authority CEOs and [Ministry of Health Services](#) senior officials have accepted the Stroke Action Plan in principle, there are still many questions about how the Plan will actually roll out, be financed, coordinated and how integrated and comprehensive it will remain.

Health authorities have been asked by their senior health leadership to confirm a manageable number of priorities to incrementally build system-wide capacity and to develop implementation details and associated budgets. PHSA has accepted an interim role in facilitating and coordinating this work. Long-term governance, funding levels and ongoing coordination for the BC Stroke Strategy will be determined over the next year. The outgoing BCSS team has developed a Transition Plan to wrap up the [Heart and Stroke Foundation of BC & Yukon](#)'s stewardship by March 31, 2011 and will work with [PHSA](#) and [Cardiac Services BC](#) to ensure a smooth transfer of responsibility.

Notable BCSS Achievements (2006 - 2010)

- A foundation of solid relationships and partnerships
- A collaborative model of communities of practice
- A comprehensive approach to aligned stroke care
- A stroke strategy based on evidence and clinical consensus
- A collective strategy that is founded on priorities needed to build the fundamentals of an improved system province-wide
- A summary of lessons learned from experiences in prototyping various stroke care models and their application for BC
- A metrics and measurement process for tracking future improvements
- A legacy tool kit containing documentation and models of stroke care, services and innovations for use in BC
- National recognition for the progress and quality of work conducted under BCSS

BC Stroke Registry

Working closely with the [Ministry of Health Services](#), 15 years' worth of stroke data

from BC's medical billing system and hospitals has been combined into a [comprehensive stroke database, or registry](#). This gives BC the ability to track the incidence, prevalence, recurrence and outcomes of stroke across the health care system. The [BC Stroke Strategy](#) team also developed definitions to select stroke diagnostic codes, providing more consistency and accuracy of data, and a new algorithm to use in finding cases.

As a result of the BC Stroke Registry, the ministry will now have improved information about the number and patterns of strokes across the province. This information will be instrumental in monitoring new stroke treatments and practices, and in measuring their effectiveness.

Discussions continue as to how the health authorities and others might obtain updates from the registry to monitor progress on stroke improvements, particularly for the [five key indicators](#) established under the BCSS Measurement and Evaluation Working Group. The final document outlining the background and technicalities of registry construction is available on the [BCSS web site](#).

Cost Avoidance Modeling

In conjunction with the [BC Stroke Strategy Action Plan](#), the [BCSS](#) and the [Ministry of Health Services](#) have also jointly supported the development of a "made in BC" model that estimates operating costs that could be avoided by moving towards optimal stroke care in BC. This work builds on data in the new Stroke Registry. This work is now complete and the model has been applied in the context of the Stroke Action Plan. The projected cost avoidance of improved stroke care over time (estimated at over \$42 million annually) is substantial and more than justifies the upfront investments (\$34 million over three years) needed to implement the Action Plan. This modeling work has gained national attention and is being built upon by the Canadian Stroke Strategy.

TIA and Telestroke Evaluations

[Measuring the outcomes of prototypes](#) is a key part of the [BC Stroke Strategy](#) approach. To that end, *Evaluation of Rapid TIA Assessment Clinics* was released in December 2010, and *Evaluation of the Telestroke Prototype* was released in July 2010.

To download both evaluations, please visit the [project evaluations page of the BC Stroke Strategy website](#).

TIA Rapid Assessment Clinics

Despite limited two-year grant funding, the report finds that health authorities were able to double access to TIA rapid assessment and treatment services within the province. While there is need to continuously improve timeliness and access to secondary prevention treatment in BC, the prototype shows that rapid expansion of an effective and cost-efficient intervention is possible, given the appropriate funding, leadership, and cooperation between regional health authorities.

Telestroke

Two telestroke prototypes ran as part of the BC Stroke Strategy: the Vancouver Island Health Authority project saw 27 patients; and Vancouver Coastal Health Authority saw 10 patients, who were in hospitals in the Fraser Health Authority. In total, video equipment was used 16 times, telephone was used 18 times and three sessions were not recorded.

Tissue Plasminogen Activator (tPA), the clot-busting drug that must be administered within 4.5 hours of the onset of symptoms, was given to 16 patients: 11 in the Vancouver Island program and 5 during the Lower Mainland program. Video equipment was used 63% of the time when tPA was actually given.

The evaluation notes that although the telestroke prototype programs were implemented during a time of significant fiscal restraint, expected tPA volumes were achieved for both prototype programs. The technical feasibility of an emergency, on-demand telehealth service was demonstrated in BC. Emergency department physicians expressed their appreciation for the enhanced Neurology "back-up," and there was a positive response from all provider groups regarding the education / training provided. A legacy of documented processes, checklists and tools now exists, and can be adapted for generic expansion of telestroke across the province.

TeleLearning

Since our Summer newsletter, we have uploaded two popular TeleLearning sessions to the [BCSS website](#):

- Dr. Phillip Teal and Dr. Andrew Penn's presentation on Telestroke: Innovating Stroke Care in BC,
- Dr. Jennifer Yao's presentation on the Stroke Rehabilitation and Reintegration Service Delivery Framework.

The TeleLearning sessions have been a popular and valuable part of the BC Stroke Strategy, and have demonstrated the interest medical professionals have in accessing information about preventing, diagnosing, treating and recovering from stroke.

Rehabilitation and Community Reintegration

The Rehabilitation and Community Reintegration Working Group has accomplished a lot with very few resources. In May 2010, it released the [Service Delivery Framework](#) (SDF), which:

- sets out stages and levels of care, defines levels of service, access criteria for rehabilitation services and transitions to community rehabilitation care and support for stroke survivors - from the stroke event to living in the community after a stroke;
- helps guide the structuring and allocation of stroke care resources across BC's health care system. Based on best practice standards, the SDF provides a Clinical Leadership Consensus Document for BC; and
- provides health authorities with a roadmap to develop rehabilitation service delivery plans for stroke care within their region, and improve coordination within and between health regions and community groups to achieve best outcomes for stroke survivors.

The working group actively promoted the framework through a [TeleLearning Session](#) (June 2010) and a communications strategy directed toward rehabilitation professionals and bodies in BC and stroke networks in Canada.

In January 2011, the working group announced successful proposals to develop a rehabilitation and reintegration prototype that encourages services that assist in "survivor recovery and functional independence following a stroke by providing efficient, timely and enhanced supported discharge and community reintegration / navigation through innovative use of health and community based resources."

As a result of funding provided by the [Ministry of Health Services](#), a select panel of experts reviewed and chose three prototypes to be funded (each also include an evaluation component):

- *Fraser Health STart Program (Stroke Assessment, Rehabilitation & Transitions - \$395,675)*: a partnership model to improve patient outcomes, maximize functional independence and facilitate community integration for survivors as they make the transition from acute care to community. This project will be located in Abbotsford but will provide service to Fraser East clients.

- *Stroke Recovery Association of BC* (\$78,905): funds to evaluate a community model for pre and post-hospital discharge stroke recovery programs at the North Shore Recovery Centre in North Vancouver, BC. The centre delivers services to the entire North Shore area.
- *Vancouver Coastal Health, GF Strong Rehabilitation Centre Connecting the Dots ... A Provincial Stroke Education Toolbox* (\$26,057 plus in-kind GFS staffing donation of \$9,613): funds to adapt and test the Stroke Education Toolkit available at GFS for use by rehabilitation professionals and frontline clinicians across the province, and create a network for sustaining stroke education.

Preliminary work to set up funding agreements and oversight processes has already begun.

Nursing Educational Needs Assessment

Stroke education for nurses has been identified as one of the major gaps in realizing best practice in stroke care within BC. To gain a better understanding of this issue and to provide recommendations when the provincial stroke action plan was being developed, the BC Stroke Strategy conducted an educational needs assessment in June and July 2010.

The results of the assessment contributed to the [BC Stroke Strategy Action Plan](#) discussion on human resource capacity and educational needs for BC professionals. [Click here](#) for the results of the survey and the report's recommendations.

Stay Tuned

As you can see, lots has been accomplished over the past few years, and the stage is set for system-wide stroke care improvements. We are excited about the coming changes in oversight and management of the BC Stroke Strategy and are optimistic that continued improvements will be made across the continuum of care that will yield measurable benefits to patients and the health system.

We will attempt to keep you informed during the transition period but encourage you to monitor the [BC Stroke Strategy website](#) for new developments. If you would like to contact us, please send an e-mail to info@bcstrokestrategy.ca.

Best regards!



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