

The South West Stroke Project is developing and implementing initiatives to improve outcomes for people with stroke and transient ischemic attack (TIA). Phase I of the project is focusing on implementing recommendations to realign inpatient acute and rehabilitative stroke care from 28 hospitals sites to 7 Designated Stroke Centres. The Phase II goal is to create recommendations to address gaps in secondary stroke prevention, outpatient and community rehabilitation and stroke support services.

Stroke Report Cards

Ontario stroke mortality rate lowest ever

This year's Stroke Report Card results indicate Ontario's stroke mortality in fiscal 2014-15 was the lowest rate ever reported. This news makes the province a leading jurisdiction worldwide in the prevention of stroke mortality. Complete results for the South West LHIN can be seen [here](#).

Phase I update

Implementing and evaluating the recommendations for the future of in-hospital stroke care

Patient engagement

There is a three-pronged approach to patient engagement: a patient representative on each Local Stroke Working Group (LSWG); patients/families participation in focus groups as part of implementation evaluation; and piloting follow-up phone calls after discharge at Grey Bruce Health Services to gather information on patient outcomes.

Q3 (Jan 2014 to Dec 2015) dashboard

The Regional Stroke dashboard is produced quarterly to monitor the implementation of best practices, and unintended consequences related to stroke realignment. Indicator examples include percentage of admitted ischemic stroke patients arriving within a 3.5 hour window from symptom onset who received tPA, and percentage achieving target active length of stay on inpatient rehabilitation unit.

Local Stroke Working Groups (LSWGs)

The LSWGs are moving forward with steps to care for stroke patients at Designated Stroke Centres. The four groups from each stroke district are holding their inaugural meetings in May and June. "The commitment of the broad range of participants in attendance at our first meeting in May was evident," says Bonita Thompson, Interim Manager for the Huron Perth District Stroke Centre at HPHA. "This was a good opportunity to build relationships and set the stage for the work ahead."

In addition to engaging stroke survivors in their districts, highlights from the LSWG's Terms of Reference include:

- implementing Phase I recommendations for the future state of stroke care in their district
- providing updates on progress, challenges and needs pre and post-implementation
- acting as the main stroke communication conduit in the district
- engaging stakeholders in implementing stroke best practices
- monitoring stroke best practices
- achieving targeted performance metrics
- informing Phase II recommendations

To request a complete copy of the LSWG's Terms of Reference click [here](#).

Designated Stroke Centre Site visits

During May, site visits took place at Woodstock Hospital, London Health Sciences Centre's University Hospital, St. Joseph's Health Care London's Parkwood Institute, and St. Thomas Elgin General Hospital. Visits to Alexandra Marine and General Hospital, Huron Perth Healthcare Alliance's Stratford General Hospital and GBHS's Owen Sound Hospital are scheduled in June.

Readiness Assessment and Sustainability

A Readiness Assessment tool is being developed to ensure all hospitals and partners are ready to accept the increased volume of people with stroke and TIA. "We're all working

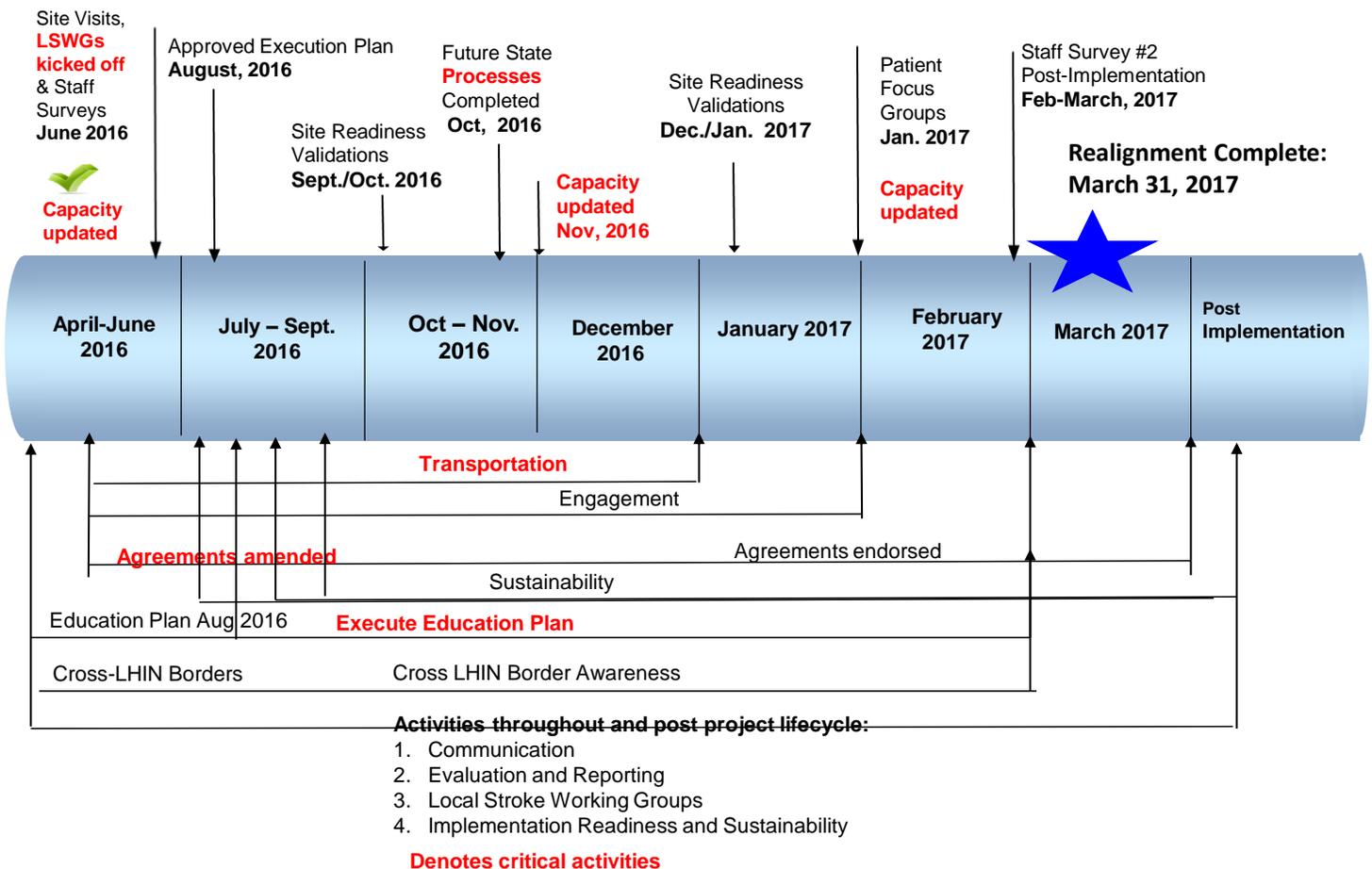
to ensure the success of this project by sharing our knowledge, tools, and expertise,” says Carol Walters, Project Sponsor. Phase I Project Lead Florence Cassar is working with each LSWG to establish key milestones to inform their readiness plans.

Once the realignment of stroke care is complete, how do we continue to improve and sustain best practice care, hold each other accountable, and resolve system needs? The answers lie in developing a Sustainability Framework with future state hospitals and other key partners. Carol Walters will lead the development the Framework which will include an evaluation component, quarterly meetings, and discussions around broader system challenges.

Next Phase I steps

- staff surveys circulated in June to all hospitals, SW CCAC and EMS to gather feelings and perceptions on stroke care realignment.
- site visits to Stratford General Hospital and Alexandra Marine and General Hospital in Goderich on June 17, and to Owen Sound Hospital on June 23.
- all SW Zone EMS Chiefs meeting June 15 for a refresher on the project, to gain input on transportation changes regarding the realignment of stroke services, and standardization of the Memorandums of Understandings across the SW LHIN
- meeting with Erie St. Clair partners in the LHIN, CCAC and EMS to discuss cross-border considerations
- inaugural meeting of the Physician Advisory Group to leverage expertise on readiness assessment and education requirements.

Phase I Timeline (click on image to enlarge)



Phase II update

Creating recommendations for the future of post-hospital stroke care

Here's an update on the initiatives underway for the two project teams—the Community Rehabilitation for Stroke Survivors (CRSS) Project Team and the Secondary Stroke Prevention (SSP) Project Team:

Both Phase II teams are working on the following:

Patient journey data collection

To inform planning of future community rehabilitation and secondary stroke prevention services, Evaluation Lead Matthew Meyer has been supporting the project teams in reviewing applicable Quality Based Procedures and Canadian Best Practice recommendations. This process involves project teams assessing each recommendation to understand its implications on where care should be provided, by whom and for how long. The goal is to have this information available to support discussion at the Blue Sky events and for ongoing planning.

An example of a best practice recommendation is: all patients should be screened for malnutrition and dehydration by a nurse or registered dietician. The group is discussing questions such as: How frequently does this need to occur? Where can it be done? Who is the provider? and Does this change depend on the status of the patient being screened (eg. mildly vs. severely impaired)? The answers to these questions will help plan what resources need to be available across the region so all patients have this screen performed in a timely manner.

Current state mapping sessions

Common and unique themes emerged at the current state mapping sessions which generated excellent discussions and input. Analysis of these sessions will serve as foundations for the Blue Sky events and prioritization of the recommendations to the South West LHIN.

Patient interviews

Patient interviews are underway, and from those interviews patient advisors will be selected for the Blue Sky events on June 20 and June 22.

Work specific to the Community Rehabilitation for Stroke Survivors (CRSS) Project Team

In addition to the project team, other stakeholders attending at the CRSS Blue Sky event will include representatives from: vocational rehabilitation, mental health, driving program, speech language pathology, Healthlinks, and Southwest Ontario Aboriginal Health Access Centres.

Work specific to the Secondary Stroke Prevention Project (SSP) Team

In late May, a Physician Engagement Survey was sent to approximately 800 primary care leads and specialists. These results will be summarized for both the Community Rehabilitation and Secondary Stroke Prevention Blue Sky events.

Next Phase II steps

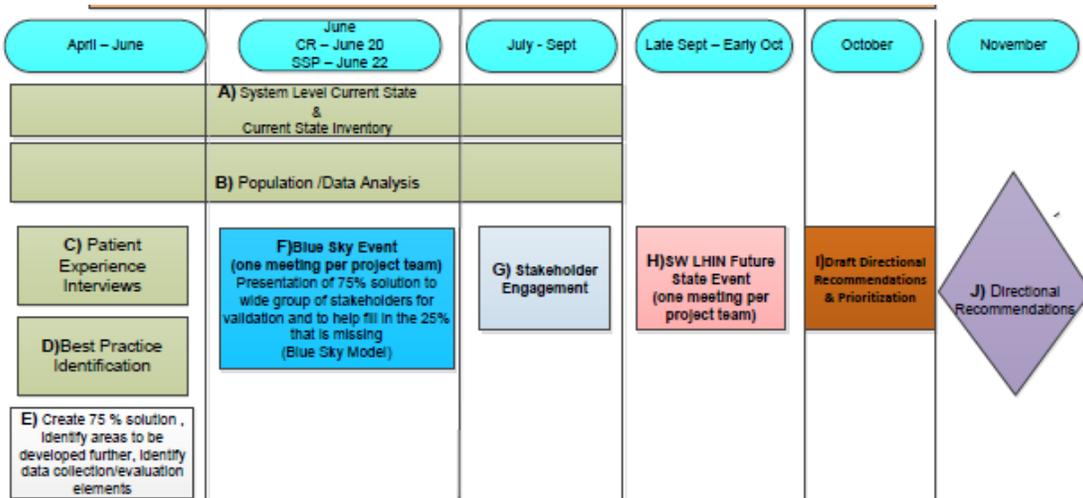
Highlights of activities in the coming months:

- Blue Sky Events:
 - Community Rehabilitation for Stroke Survivors – June 20
 - Secondary Stroke Prevention – June 22
- patient experience and patient journey data collection completed
- risk analysis initiated .

Correction:

In the May newsletter Oneida Nation EMS was inadvertently not included in the list of paramedic services in the South West LHIN. We apologize for this oversight.

Phase II Timeline



- A. System Level Current State and Current State Inventory:** The Process mapping sessions being held in each of the four stroke regions for both project teams) will engage stakeholders to determine what's working well and where gaps may exist in the current community rehabilitation and recovery and secondary stroke prevention clinics and services in the South West LHIN.
- B. Population Data Analysis** will identify the number of stroke and TIA survivors who require care across the region what services they need, and where those services should be located to best meet their needs.
- C. Patient Experience Interviews** will be conducted with a variety of stroke and TIA survivors throughout the region to gather their feedback on secondary stroke prevention and community rehabilitation and recovery services they received, and ideas they may have for improvement
- D. Identify Best practices:** A research team at St. Joseph's Health Care London's Parkwood Institute, known as CORRE (Collaboration of Rehabilitation Research Evidence), will help to summarize and present current best-practice recommendations to the project teams.
- E. Solution:** The data collected from initiatives A, B, C and D above, will be compiled to create a solution for the future of secondary stroke prevention and community rehabilitation and recovery including identifying data collection/evaluation elements, and identifying areas that need to be further developed
- F. Blue Sky Event:** Input from stakeholders attending the blue sky event will validate and build on the solution foundation (E above), to create an ideal future state for post-hospital care that fills in any potential gaps
- G. Stakeholder Engagement:** Throughout the summer, more stakeholders will be engaged, including physicians, to contribute their expertise to the vision for secondary stroke prevention and community rehabilitation and recovery services
- H. SW LHIN Future State Event:** Based on engagement over the summer, at the SW LHIN future state meeting the components of the Blue Sky model (F) along with the System Level Current State and Inventory (A) will be reviewed to determine what is feasible to include in the recommendations for the future of post-hospital stroke care
- I. Draft and Prioritize Directional Recommendations** for consideration by the Steering Committee.
- J. Finalize Directional Recommendations** for presentation to forums for endorsement and to the South West LHIN

Featuring aspects of the work underway by the project teams to bring Phases I and II to fruition.

Evaluation – Phases I and II

Evaluation is an important and often overlooked component of change that helps us to understand where we are, where we want to be, and how to get there. “Good evaluation not only assesses the changes we are making, but is also a part of the change process,” says evaluation lead Dr. Matthew Meyer. The South West Stroke Project team has included an evaluation component in every stage of developing and implementing the recommendations for the future of stroke care in the South West LHIN. Here is an overview of the evaluation plan to date.



Margo Collver, Adriana Hurst, Dr. Matthew Meyer, Eileen Britt, Deb Willems, Sean Willis, David Ure, and Bonnie Wooten during a Phase II Community Rehabilitation for Stroke Survivors team discussion.

Phase I – Implementing and evaluating the recommendations for the future of in-hospital stroke care.

The phase I recommendations were developed using best practice recommendations and local data, and by engaging stakeholders including patients, families and care providers. The evaluation considers three perspectives: patients/families, staff, and the system of care. Here are the evaluation projects underway:

1. **Patient/family focus groups:** These groups will be held early in 2017 to understand patients' and families' experiences in the newly-designed system. This input will be compared to the experiences of patients and families interviewed before the recommendations were implemented. .
2. **Patient outcome measures:** Opportunities are being explored across the LHIN on ways to contact patients after discharge from hospital to ask them about their recovery and quality of life.
3. **Staff surveys:** Electronic surveys of Emergency Medical Services (EMS), emergency departments, acute care, and inpatient rehabilitation staff will be conducted in June 2016 and Feb 2017 to understand their readiness to implement the changes, what they need to be successful with these changes, and their experiences during the life of the project.
4. **Regional Stroke Dashboard:** This tool was developed to measure if patients are being transferred to the stroke centres as planned and if they are receiving best practice care once they are there. Data is updated quarterly and performance of all hospitals is monitored.

Phase II – Creating recommendations for the future of post-hospital stroke care

At this early stage, the evaluation team is working with the project work group in two key areas.

1. **Review of stroke-best practices:** The workgroup is considering best practice recommendations from Health Quality Ontario's *Clinical Handbook for Stroke* to understand how each recommendation can be successfully provided to patients in the South West LHIN. This includes a partnership with the Collaboration of Rehabilitation Research Evidence at St. Joseph's Health Care London's Parkwood Institute to better understand the research behind the recommendations.
2. **Expansion of the regional stroke dashboard:** The original dashboard is being expanded to include outpatient/ambulatory rehabilitation and secondary stroke prevention.

“The recommendations for stroke are designed to improve the quality of care we provide to our patients,” says Matthew. “Evaluation will play an important role in ensuring we meet this goal. The evaluation strategy was designed to support the project from various perspectives. The evaluation team is open to suggestions and is happy to help support improvements in care wherever possible.”

The journey for people with stroke and TIA

Following people with stroke and TIA through the continuum of care.

Secondary Stroke Prevention

Secondary Stroke Prevention (SSP) Clinics form a vital link in the stroke continuum of care, providing urgent preventative care to those who are at high risk for stroke, who have had a suspected TIA (transient ischemic attack) and/or who have had a stroke.

SSP Clinics are located in centres with physicians who have stroke expertise and rapid, consistent access to diagnostics. Currently there are three SSP Clinics in the South West LHIN located at Grey Bruce Health Services (GBHS - Owen Sound Hospital), Huron Perth Health Care Alliance (HPHA - Stratford General Hospital), and London Health Sciences Centre (LHSC - University Hospital), with a fourth planned for St. Thomas Elgin General Hospital.

“Providing stroke and TIA care day in and day out, we have the expertise to really delve in to a patient’s case to provide them with the best possible care,” says Louise Flanagan, RN in the stroke program at HPHA.

“In stroke prevention, time is of the essence. SSP Clinics cut wait times so patients can be assessed and diagnosed while their symptoms are recent,” explains Corbin Lippert, Nurse Practitioner at LHSC. “As a result, the physicians in the Emergency Department are able to discharge their patients with confidence, knowing they will be seen and treated in a timely manner and avoid hospital admission.”

Assessment

People with TIA and stroke are referred to the SSP clinic by a physician or nurse practitioner, and are triaged to ensure the most urgent cases are seen first. They complete a neurological exam, a medical history which includes medications, family history, social factors including smoking and diet, and a physical exam. “We look closely for indicators the patient may have had a stroke or damage to the brain such as changes in cranial nerve function, weakness, lack of coordination, reflex or sensory abnormalities, vision deficits, and speech difficulties,” explains Corbin.

All patients have tests to investigate why the suspected TIA or stroke occurred, with possible causes including atrial fibrillation or a blood clot from the heart. The patient may also be referred to a neurosurgeon to be assessed at LHSC, the regional centre for neurosurgery, for carotid



Grey Bruce Health Services (GBHS) – SSP Clinic

Internist Dr. Jack Ostrander, SSP Clinic patient Mary Ashley, and District Stroke Educator Diana Williamson.

In GBHS the SSP team includes: a neurologist, an internal medicine physician specializing in neurology, a district stroke educator and administrative support.

On average this clinic serves 37 people with stroke and TIA each month.



Huron Perth Healthcare Alliance (HPHA) - SSP Clinic

The SSP Clinic at HPHA includes RN Caroline Johnson, Administrative Support Krista Miller, and RN Louise Flanagan.

On average the HPHA SSP Clinic serves 26 people with stroke and TIA each month.

endarterectomy (surgery that removes the plaque on the inside of arteries in the neck) or carotid artery stenting.

Diagnosis

Once the test results are received, the patient returns to the clinic to learn about the diagnosis and plan of treatment. Patients with TIA or stroke are treated according to the Canadian Best Practice Guidelines. “If we have identified risk factors for stroke then those must be addressed,” says Corbin. “We often initiate risk factor management directly in clinic, and partner with primary care providers to suggest long-term strategies that could be adopted to decrease stroke risk.”

Providing education about lifestyle modifications, such as diet and smoking, is an important component of treatment. “If TIA and stroke patients adopt a healthy lifestyle and get their risk factors to target ranges, they can enjoy an 80 per cent risk reduction,” says Diana Williamson, GBHS District Stroke Educator.

“We work diligently for our patients to determine the cause of their symptoms” says Corbin, “Many times, the cause was not a stroke or TIA, but instead a common stroke mimic such as migraine or vertigo. It is important to accurately determine this to ensure the appropriate care is undertaken.”

“We also facilitate fast access to follow-up resources including the Community Care Access Centre and the Community Stroke Rehabilitation Teams,” says Diana.

The GBHS and HPHA stroke care teams balance their time between inpatient, rehabilitation and SSP care. AT LHSC there is a team dedicated to its two clinics: the Urgent TIA Clinic, and the Carotid Revascularization Clinic, with NP Corbin Lippert splitting his time between the two clinics.



London Health Sciences Centre (LHSC) – SSP Clinics

From left: Dr. Alexander Khaw, Dr. Luciano Sposato (back), Dr. Jennifer Mandzia, Dr. Melfort Boulton, Dr. Vladimir Hachinski, Daniel Robinson- Coordinator, Corbin Lippert NP, Maily Keir – Clerk, Emily Rimmelzwaan (back) – Clerk, Lorraine Fleming RN. Absent from photo: Dr. David Spence, Dr. Stephen Lownie, and Dr. Matthew Hebb

At LHSC the team:

- in the **Urgent TIA Clinic** includes 5 stroke neurologists, 4 clinical fellows, 1 nurse practitioner, 1 RN, and 1.2 FTE clerks
- in the **Carotid Revascularization Clinic** includes 1 NP (from Urgent TIA Clinic) and 3 neurosurgeons.

On average the LHSC clinics serve 152 people with stroke and TIA each month.

Planning is underway for the opening of a fourth Secondary Stroke Prevention Clinic in the South West LHIN at St. Thomas Elgin General Hospital.