Vascular Health in Southeastern Ontario

A Focus on Primary Care

September 24, 2012

A report prepared for the Southeastern Ontario Health Collaborative

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Executive Summary

A recent health profile of Southeastern Ontario continues to report higher than provincial rates for vascular diseases such as diabetes and stroke. The report also reveals higher rates of vascular disease risk factors such as hypertension, obesity and smoking (Statistics Canada, 2012). The vascular health profile of the south east region provides the rationale for further exploration and review that is detailed in this subsequent report. The solution to improving vascular health largely lies with primary care and in collaboration with others such as the Southeastern Ontario Health Collaborative (SEO Health Collaborative), speciality clinics and public health.

The SEO Health Collaborative recently formed in January 2011 as different health organizations decided to come together and determine how best to work in collaboration with primary care. The first priority of the newly formed SEO Health Collaborative was to determine how best to further support primary care to improve vascular health.

First Steps

Primary care is perceived by many to be fairly complex and is changing at a remarkable rate. The many new and different functions and services within primary care related to vascular health may not be fully understood. In order to better understand the nuances within primary care it was decided to perform an environmental scan (ES) and host three separate *Think Tanks* involving many different primary care health professionals, administrators and support staff from different urban and rural locations. The main objectives for the ES and *Think Tanks* were to discover the tools, resources, or programs currently in place and to help identify primary care needs in relation to vascular health.

Despite the variation in services, programs or systems because of the diversity of the community primary care serves, there were some commonalities identified including issues and needs.

Findings

Most primary care organizations have at least one to two vascular disease prevention services on-site. The consistent services offered include smoking cessation and diabetes education. Many during the ES and the *Think Tanks* indicated their wish to expand the services or programs they provide and apply relevant components of smoking cessation and/or diabetes services to preventing other vascular disease risk factors such as hypertension.

Simplicity and **user-friendliness** were mentioned over again during the visits and *Think Tanks* in reference to having one integrated electronic medical record (EMR) and one evidence-based harmonized vascular disease prevention guideline (i.e., C-CHANGE: Canadian Cardiovascular Harmonization of National Guidelines Endeavour).

The common vision for a robust vascular health service program identified would be one that is patient-centred, equitable, accessible, team and community-based with emphasis on self-management.

Common Needs & Opportunities Identified in the ES and *Think Tanks*

Communication & Collaboration:

1. Increase sharing of information between primary care organizations such as lessons learned and tips for success to initiate, sustain and expand vascular disease prevention services or programs; and how others effectively utilize their EMR (e.g., generate reports and referrals).
2. Facilitate consistency such as documentation practices within the EMR.
3. Examine innovative ways for sharing up-to-date vascular health-related information, tools, and resources such as a common web site.
4. Continue to improve connections with groups interested in vascular health such as the SEO Health Collaborative, Public Health Units and specialty clinics.
5. Increase awareness and promotion of established vascular disease prevention community services or programs to reduce duplication of efforts. Further development of partnerships and plans to increase physical activity and safe exercise programs.

Integration:

6. Develop a user-friendly integrated system that incorporates improved access (e.g., EMR) and has one valid vascular health-related guideline; one vascular disease risk assessment tool that everyone can agree to use; one clinical flow sheet that captures all relevant health indicators. Determine what vascular health indicators should be tracked consistently. Regular training for all staff to increase comfort with the functions within the EMR system. Increase access to other clinical tools such as point-of-care blood testing.
7. Develop a person or patient-centred integrated vascular health service or program within each primary care organization encouraging self-management, physical activity, a healthy diet and smoking cessation. A vascular health program, service or system should be flexible in order to be applicable to a local setting. Components of a vascular health program, service or system could be modelled after established programs such as the Global Risk Reduction program in the Upper Canada Family Health Team.

Given the interest to improve vascular health, the time seems right to work collaboratively and start addressing some of the prioritized needs identified during the ES and *Think Tanks*. Acknowledged advice by some primary care providers was to start with smaller and potentially more doable action plans. Some feasible

plans to begin with in relation to the needs identified could include: 1) collaborative education sessions in relation to common interests such as blood pressure management and motivational interviewing; 2) support for shared work experience opportunities to enhance information sharing about vascular health programs or services that are working well; and 3) consideration for developing or enhancing local vascular health community resource directories.

Ultimately, primary care plays a critical role in ensuring the success of an integrated and collaborative vascular health strategy.

Recommended Next Steps

1. **This report will be shared with**:
   a. Primary care providers across the region – including all who participated in the environmental scan and the Primary Care *Think Tanks;*
   b. The Southeastern Ontario (SEO) Health Collaborative including the Primary Care Lead for the SE LHIN and each of the Regional Steering Committees of its represented chronic disease networks;
   c. The SE Primary Health Care Council;
   d. The SE LHIN;
   e. The leads for the Cardiovascular Clinical Services Roadmap of the SE LHIN and
   f. The Project Manager for the Ontario Integrated Vascular Health Strategy.
2. **Local Action Plans** will be followed up by those engaged and self-identified in developing the preliminary action plans made at the Primary Care *Think Tanks*.
3. The **SEO Health Collaborative** will review this report to guide the focus for a collaborative and supportive partnership with primary care in addressing **regional concerns and proposed actions.** The SEO Health Collaborative will lead a process to identify a consolidated **regional action plan** that will guide its ongoing activity for the coming year. The intent would be to carry on the momentum for improving vascular health by translating the identified prioritized needs into actionable plans. This will be initiated in **partnership** with the Primary Care Lead for the SE LHIN, the **SE Primary Health Care Council** and associated local primary care leads. The Primary Health Care Council will validate actionable plans and collaborate on implementation through its *primary care hub network.*
4. **Consideration** may need to be given to the development of **community vascular health tables** to support primary care locally in relation to proposed actions in vascular health. This consideration would need to be made in alignment with the ongoing work of the SE Primary Health Care Council.

5. The SEO Health Collaborative is well positioned to become the **Regional Vascular Collaborative** as described in the August 2012 release of the Integrated Vascular Health Blueprint for Ontario. This will be discussed with the SE LHIN.

6. The SEO Health Collaborative will build communication with the Ontario Integrated Vascular Strategy Project Manager to ensure that areas outlined in this report that align well with the **provincial strategy** be referred on.

Introduction

Many of us know someone who has had a stroke or a heart attack. It is also well-known that cardiovascular disease is linked to high rates of death, disability and health-related costs (Carter et al., 2009). An estimated 1.6 million Canadians are living with heart disease and stroke (Public Agency of Canada, 2009). Globally about 29.2% of deaths result from different forms of cardiovascular disease; many of them are preventable (WHO, 2010).

What is hopeful is despite vascular disease being such a burden on society it is largely amenable to positive change through prevention (Passey et al., 2012)

For the purpose of this report, it was decided to move beyond what is known as cardiovascular disease and include all vascular-related diseases such as stroke, kidney disease, diabetes and certain heart diseases such as coronary artery disease. Vascular diseases affect the body differently but share common risk factors. It's the related risk factors that have led many to working together to prevent vascular disease.

Lee et al. (2009) indicated that risk factors such as hypertension and obesity are on the rise for all ages and ethnic groups in Canada. Young people are at increasing risk for vascular diseases (Lee et al.). One disturbing trend is an increase in the number of children diagnosed with Type 2 Diabetes (Ontario MOHLTC, 2010). Many are predicting our children may see a reduction in life expectancy that has not been present for over two centuries (Lee et al.). Some people develop new vascular disease(s) and experience repeated hospital admissions (Hall et al., 2012). A common combination is heart disease and diabetes (Ontario MOHLTC). Hypertension is the most common reason for a visit to primary care providers.

Vascular diseases affect blood vessels. They can include certain heart diseases such as coronary artery disease, kidney disease, stroke, diabetes and dementia. These diseases are different but are linked by common risk factors such as hypertension, physical inactivity and poor nutrition.

Reports indicate that Southeastern Ontario (SEO) has higher than provincial rates for many vascular diseases such as diabetes (SEO: 8.7%; Ontario: 6.8%) and related risk factors such as hypertension (SEO: 19.8%; Ontario: 17.4%) (Baines et al., 2005; Kapral et al., 2011; Hall et al., 2012; Statistics Canada, 2012).

Table 1 from Statistics Canada (2012) highlights the incidence and regional variations in vascular diseases and risk factors. These results have provided the main impetus for this report.

Table 1

Vascular Health Indicators (Statistics Canada, 2012)

Indicators	HPE	KFL&A	LLG	South East LHIN	Ontario
Health Condition/Health Behaviour					
Obesity %	23.6	22.6	20.2	22.0	18.0
Diabetes %	8.0	8.9	8.5	8.7	6.8
Hypertension %	23.0	18.7	18.4	19.8	17.4
Current daily smoker %	23.0	15.7	21.6	20.0	14.5
Heavy Alcohol drinking %	18.6	17.1	19.5	18.3	15.9
Perceived life stress %	24.8	26.9	25.0	25.8	24.0
Physical Activity: Moderately Active or Active %	57.8	63.4	59.6	60.5	50.5
Hospitalized Myocardial Infarction (per 100,000 population)	241	210	212	218	207
Hospitalized Stroke (per 100,000 population)	140	108	133	127	125
Health System					
Coronary Artery Bypass Graft (per 100,000 population)	101	101	94	103	68
Percutaneous Coronary Intervention (per 100,000 population)	214	202	224	207	174
Mortality					
Circulatory Diseases (per 100,000 population)	179.1	162.3	178.1	174.7	155.6
Community					
Age ≥ 65 %	16.9	15.2	17.2	16.4	12.7
Rural Area Population	48.2	36.9	58.7	45.9	14.9

Note: Vascular-Related Health Profile adapted from "Health Profile, June 2012: South East Health Integration Network Ontario" by Statistics, Canada, 2012. Retrieved from www.statcan.gc.ca

Note: **HPE**: Hastings & Prince Edward Counties; **LLG:** Lanark, Leeds & Grenville Counties; **KFL&A**: Kingston, Frontenac, Lennox & Addington Counties

Lately there is a shift in focus from hospital care to primary health care. Primary care is in the spot light with the threat of a "storm" brewing in light of an ageing baby boomer generation and reported increase in physical inactivity and poor diets. More attention is being placed on health promotion and prevention initiatives within primary care to help weather this storm. More can be achieved by prevention than treatment alone as noted in the1974 Lalonde report. In 2002, Roy Romanow recommended more emphasis on promoting a healthy lifestyle and disease prevention in order to improve health outcomes and decrease the burden on health care. A local Stroke Prevention Clinic report indicated that 30% of patients presented with diabetes and of those, 30% were undiagnosed with diabetes. The latest INTERSTROKE study (2010) indicated that five risk factors (hypertension, physical inactivity, current smoking, poor diet and abdominal obesity) account for 80% of the global risk for stroke (O'Donnell et al., 2010).

Health promotion and disease prevention of individuals are considered important parts of primary care (Hogg et al., 2009). A strong primary care component in health care has a positive effect within health care systems including lower costs (Starfield & Shi, 2001; Australian Institute for Primary Care, 2008). Primary care is essential as it provides early identification and management of diseases and improves access to health services (Starfield, Shi & Macinko, 2005).

Primary care is considered the first point of entry into the health care system and addresses many health care needs including chronic disease prevention and management (Khan et al., 2008).
Much has been written about chronic disease prevention. This report will concentrate on one related group of chronic diseases known as vascular diseases. It is anticipated that some lessons learned can be applied to efforts related to chronic disease prevention.

Over time primary care has become more complex, changing and expanding rapidly (Australian Institute for Primary Care, 2008). Self-management initiatives are front and center as the system moves away from disease-centred care to person-centred care. One such initiative is the launch of the Ontario Diabetes Strategy to help empower patients (Ontario MOHLTC, 2010). The Excellent Care for All Act (2010) emphasizes that patients and caregivers have a significant role. It is the patient who has the greatest role to play in the prevention of vascular diseases. The evidence suggests a "*partnership*" between patient and provider leads to better outcomes (Walker, Swerissen & Belfrage, 2003; Weeks et al., 2003). Improvements within primary care can only benefit others along the continuum of care.

"Everyone is a preventable patient"

The Ontario Ministry of Health & Long Term Care (2010) lists successful characteristics for health promotion and disease prevention programs:

- *"Addressing measurable and modifiable risk factors*
- *Being pro-active*
- *Using multiple strategies utilizing best evidence*
- *Integrating and collaborating on delivery of services*
- *Empowering people in relation to self-management*
- *Evaluating programs for effectiveness"*

Recognizing common related risk factors for vascular disease, many have been working together including primary care providers and other health care providers across Canada to integrate their efforts for disease prevention (Change Foundation, 2010; Wolbeck Minke et al., 2006). Pooling together expertise and different perspectives and ideas leads to a synergy that can achieve more effective results than working alone within a single organization or group (Wolbeck Minke et al.). Essentially through integration and collaboration of efforts duplication and costs are reduced and positive outcomes are achieved.

Health organizations in Southeastern Ontario decided to come together and determine how best to work in collaboration with primary care to support vascular health locally and regionally. The newly formed Southeastern Ontario (SEO) Health Collaborative in January 2011 includes all the Southeastern Ontario regional chronic disease programs including primary care representation (e.g., the primary care physician lead for the Local Health Integration Network of Southeastern Ontario). The purpose of this Collaborative is "*to provide a forum for knowledge exchange and joint planning in best practice implementation among the South East regional networks and planning groups associated with various chronic diseases"* (SEO Health Collaborative, 2011). The first priority the SEO Health Collaborative identified was to work with primary care to reduce vascular disease risk factors. Initial "steps" include:

- *Identifying tools, resources, programs and systems currently in place*
- *Discussing how to enhance these tools, resources, programs and systems and determine collaboratively what is needed to further support vascular health in primary care*
- *Identifying from primary care initial steps for local and regional action*

This integrated approach is patient or person- focused and aligns with many other plans such as the Ontario Integrated Vascular Health Blueprint, Canadian Heart Health Strategy Action Plan, the Ontario Stroke Network Strategic Plan, the Ontario Chronic Disease Prevention and Management Framework and the World Health Organization's priorities

(Bacon et al., 2009; Garcia & Riley, 2008; OSN, 2011; WHO, 2005). The ongoing work of the SEO Health Collaborative including primary care and public health will inform and advise the Ontario Integrated Vascular Health Strategy.

The many different functions, services and programs within primary care as it relates to vascular health promotion and disease prevention may not be fully understood. Two initial "steps" have been taken to better understand the nuances within primary care and to begin to determine how best to work with primary care to support their efforts. The first step in understanding the complexity within primary care related to vascular health was to perform an environmental scan (ES). An ES was conducted as a first step in providing direction for future plans related to vascular health. The environmental scan consisted of a literature review, an internal survey, external questionnaire and on-site visits.

The second step involved hosting three separate primary care *Think Tanks* to explore collectively vascular-related services that are working well and to further identify local needs. The identified needs were ranked according to a voting system and participants discussed some possible strategies to address those prioritized needs.

Environmental Scan

In order to understand more about diversity, complexity, truths and realities within healthcare it helps to determine "what's really going on" (Katz & Mishler, 2003; Pillay, 2003). Primary health care is complex and when caring for clients and working with many health care professionals within different health systems, one needs to consider unique and different cultures, behaviours and perceptions. An environmental scan (ES) is a useful tool for health decision-making by increasing awareness and predicting trends (Graham, Evitts & Thomas-MacLean, 2008). To help organize the ES, the Choo 2001 framework was chosen. The Choo (2001) framework recommends an active and "intrusive" search mode in order to fully assess for disparities, similarities and needs (Choo). An ES of primary care organizations would be the springboard to increase awareness and understanding of vascular disease prevention activities within primary care.

Ultimately, the knowledge obtained about vascular health promotion and prevention within primary care practices would be beneficial for the SEO Health Collaborative in generating action plans for collaborative opportunities with primary care.

The Environmental Scan involved:

- Literature review
- Internal Survey
- External Questionnaire
- Semi-structured interviews at primary care organizations

In order to prepare for the on-site visits, a literature review was conducted to help understand the general functions of the different delivery care models, to increase knowledge about vascular disease prevention activities within primary care and to explore possibilities of others integrating their efforts in relation to prevention.

The literature review mostly involved a review of "grey" literature. Reports, plans and websites were reviewed from Canada, the United States, the United Kingdom and Australia (e.g., The Change Foundation, Canadian Health Council, Ontario Ministry of Health and LTC, the Ontario Chronic Disease Prevention Alliance, Chronic Disease Prevention Alliance of Canada, British Heart Foundation, National Health Services (UK), American Heart and Stroke Associations and the Department of Health and Ageing from the Australian Government).

The literature review also involved searching for evidence-based practices related to vascular health; related environmental scans conducted; and integrated vascular health strategies. This involved a search of the Cochrane Library, CINAHL, PubMed and Ovid MEDLINE databases for additional information about prevention practices within primary care.

Primary Care & Delivery Models

Primary Health Care is considered the main point of contact between the patient and the health care system (Health Force Ontario, 2007). There are different delivery models of primary health care within Ontario such as Solo practices, Family Health Organizations (FHO), Family Health Teams (FHT), Family Health Groups (FHG), Nurse Practitioner (NP)-Led Clinics, Community Health Centres (CHC) and Family Health Networks (FHN). For practical and logistical reasons FHTs, CHCs and NP-Led clinics were visited.

A review of various websites including the Ontario Ministry of Health and Long Term Care (MOHLTC) was conducted to understand the various associated functions.

FHTs were developed to improve access to primary care, help patients navigate through the health care system and offer one entry point to meet complex needs. FHTs are groups of health care professionals such as physicians, nurse practitioners, nurses, dietitians and social workers who work collaboratively to provide patient-centred primary care. One of the roles of FHTs identified by the Ontario MOHLTC (2010) is to develop and provide chronic disease management programs including the promotion of self-care. A "*Family Health Team Guide to Chronic Disease Management and Prevention*" provides general prevention strategies and suggested resources.

Currently, there are fifteen FHTs in the region of Southeastern Ontario (see Appendix A).

Community Health Centres (CHCs) are organizations providing comprehensive primary care and health promotion programs and services in diverse communities (Ontario MOHLTC, 2001). They are important for their contributions to a healthy community. One of the main roles of CHCs is to improve equal access to health services for all people and link clients to community and social services (Ontario MOHLTC). One of the principles of CHCs is for the client to take responsibility for their own health. CHCs offer a broad range of community support services such as the "*Good Food Box"* program. There are five CHCs currently in operation (see Appendix A).

Nurse Practitioner-Led Clinics are operational in Belleville and Smiths Falls (see Appendix A). With the Nurse Practitioner (NP) led model, the NP is the lead provider of primary health care. However, the NP-led clinic operates as a team with other health care professionals such as pharmacists, dietitians, nurses and collaborating physicians. The NP-led Clinic improves access to primary and family health care for those who do not have a primary care provider.

These different types of primary care delivery groups are person or patient-centred and bring together different health care professionals to provide a team approach for enhanced coordinated services. The goal of the different primary care delivery groups is to provide care closer to home and to adapt health care according to the current needs of the local communities. All provide, to some extent system navigation, health promotion, prevention of chronic diseases, facilitation of self-management and improved access such as offering extended hours of practice.

There will be variance in services and programs because of the diversity of the population each primary care organization serves.

Prevention

The literature review also involved a search for vascular disease prevention practices within primary care. The review began with a search for stroke prevention initiatives within primary care. The review of the literature revealed a paucity of information specifically about stroke prevention programs within primary care organizations in Canada. One Irish study (2009) looked at primary care ensuring optimal stroke prevention (Whitford et al., 2009). The researchers hypothesized that effective primary prevention strategies such as treatment for hypertension and atrial fibrillation are well understood but may not be implemented fully in general practices (White, Feely & O'Neill, 2004). Whitford et al. claimed that general practitioners could implement secondary prevention measures for stroke. The study reported on an environmental scan (ES) of general practices to determine stroke prevention programs in place. The ES revealed that most general practices

had good access to nurses and physiotherapists but not to dietitians, social workers, speech language pathologists, psychologists and occupational therapists (Whitford et al., 2009).The majority of barriers identified for primary care to implement stroke prevention were "inadequate time, resources, funding and lack of risk factor protocols" (Whitford et al.). Many general practices in the UK have a stroke/TIA registry and engage in annual audits that have revealed a steady improvement in prevention (Simpson et al., 2006).

With regards to cardiovascular disease prevention within primary care, research indicates that certain factors can lead to a prevention program's success (e.g., local expertise, engagement of physicians, presence of a pharmacist and a balance between flexibility and standardization) (Carter et al., 2009). Cardiovascular disease risk can be reduced with primary care interventions based on a multidisciplinary approach (Colle & Brusaferro, 2008). One study indicates that strong primary care is associated with improved cardiovascular disease prevention (van Lieshout et al., 2009). Some studies have identified nurse–led programs as playing an important role in cardiovascular disease prevention in primary care (Voogdt-Pruis et al., 2011).

The WHO Global Strategy for Cardiovascular disease prevention and control focuses on "diet, physical activity and tobacco consumption" (WHO, 2010). The WHO Global Strategy lists countries with successful interventions. For example, in South Korea, there is emphasis on promoting local foods and traditional cooking methods; in Japan their campaign on sodium reduction has helped lead to stroke rates decreasing by more than 70%; and in Mauritius, cholesterol levels were reduced with a switch in cooking oil from palm to soya bean (WHO, 2010).

In 1999, Joseph et al. indicated that to achieve control of vascular risk factors an introduction of incentives and a team approach may be helpful. A study by Schutze et al. (2012) relayed that a lifestyle modification program in general practice is feasible for the prevention of vascular diseases but requires a flexible format to be adapted to the local setting. High risk patients with already identified vascular diseases benefit by combining multiple prevention approaches such as medications, diet and exercise (Hackam & Spence, 2007).

Integrated Vascular Disease-Related Prevention Programs in Primary Care

Other regions in Ontario are starting to invest in integrated and collaborative vascular disease prevention strategies such as the Central East and Champlain LHIN areas. Lessons learned from these initiatives are to involve all vascular-related organizations, other team members and effective utilization of the electronic medical record.

The Peterborough Networked Family Health Team developed a "*Comprehensive*

Vascular Disease Prevention and Management Initiative" (CVDPMI). The goal of CVDPMI is to streamline care, prevent vascular-related diseases, improve outcomes and lower costs (Central East LHIN, 2008). The proactive and collaborative initiative involves the Peterborough Networked FHT, Cardiologists, Nephrologists and many other partners including industry. The initiative complements the recommendations of the "*Canadian Heart Health Strategy Action Plan"*.

The Champlain Cardiovascular Disease (CVD) Prevention Network has implemented the "*Improved Delivery of Cardiovascular Care (IDOCC)*" program to help primary care providers with prevention. The program relies on facilitators who act as resources for primary care practices. These facilitators help primary care providers integrate into their practice the Champlain Primary Care CVD Prevention & Management Guideline for Coronary Artery Disease, Peripheral Vascular Disease, Stroke and Diabetes (Champlain CVD Prevention Network, 2009). The guideline includes a risk factor screening tool, recommended targets, and management strategies for hypertension, dyslipidemia, detection of chronic kidney disease, smoking, weight and physical inactivity. The guideline also includes tips for self-management and a list of community resources such as a Hypertension Clinic.

Other Environmental Scans on Prevention within Primary Care

The Centre for Rural and Northern Health Research at Lakehead University conducted an environmental scan for the North West Local Health Integration Network (LHIN) on chronic disease prevention and management initiatives. One program the reviewers examined was the prevention initiative from the 1972 "North *Karelia*" project (Finland) involving cancer, diabetes and heart disease. The program had smoking cessation, dietary and rehabilitation support. Results of the integrated Karelia Project showed a 50% reduction in cardiovascular and cancer mortality in the community (Minore, Hill & Perry, 2009; Puska, n.d.). The ES discusses challenges for Ontario in developing integrated models in relation to geography and diversity. The ES of the North West found that the majority of FHTs and CHCs have chronic disease prevention and management programs in place. There were many examples of primary care organizations creating a chronic disease network working with others such as community agencies and cardiac rehabilitation. The northwestern primary care organizations assist their patients to navigate the health care system and refer clients to appropriate community resources for further management of their chronic disease such as diabetes education. In some areas, nurses were educating themselves on chronic disease management such as asthma and would share this knowledge with their colleagues (Minore, Hill & Perry, 2009). Most of the primary health care areas that were scanned in the North West have

implemented "*The Stanford Chronic Disease Self-Management*" program (Minore, Hill & Perry, 2009). The ES also noted that many of the electronic record keeping systems were unable to "communicate" with each other.

In 2002, an environmental scan *"Health Promotion and Chronic Disease Prevention Collaborative Initiatives*" was completed for the Canadian Diabetes Association to support an integrated chronic disease prevention strategy for Alberta (Blair & Chenier, 2002). At that time, it was noted that cardiovascular disease, cancer, chronic obstructive pulmonary disease and diabetes are connected by common preventable lifestyle risk factors (Blair & Chenier). One integrated initiative highlighted in the ES was the global WHO, *"Countrywide Integrated Non-communicable Disease Intervention"* (CINDI) program. CINDI was initiated in 1982 and currently includes 20 countries. This program looks at reducing common risk factors such as smoking, poor diet, alcohol abuse, physical inactivity and stress. Blair & Chenier noted in their ES a disconnection between specialist groups, primary health care, public health and health promotion systems. The review noted that a successful integrated system involves wide representation with commitment to partnership, realistic timelines, doable plans, affordable functions, good communication links, shared and sustainable resources, a common purpose and vision, and an evaluation and monitoring process (Blair & Chenier)

The Ontario Chronic Disease Prevention Alliance conducted an environmental scan in 2005. Lyons and Kugl (2005) noted nine strategies as a result of their scan: planning, policy development, communication, enabling system, research and development, human resources development, dissemination/deployment, monitoring and surveillance and provincial indicators. Some observations related to barriers were made such as a lack of consistent social marketing, competing research priorities and a lack of a healthy public policy.

An environmental scan was also conducted of public health and primary care in Ontario in 2009 (Valatis et al., 2009). The ES discovered processes required to enhance collaboration between public health and primary care. Valatis et al. also discovered that collaboration was taking place (e.g., HPE Health Unit and the Prince Edward FHT related to smoking cessation).

The Change Foundation (2010) noted that there is collaboration of primary care and other health care providers in many communities across Ontario. If the vision is clear and staff are made to feel part of the decision-making process and had some responsibility for some component of prevention, staff would be willing to adapt and integrate prevention into their daily practice (Nemeth et al., 2008). Nemeth et al. claimed that "translating research into practice has been difficult to achieve by many health services leaders, despite

tools such as benchmarks and clinical guidelines". The electronic medical record (EMR) is a tool that might help. EMRs are useful for recording notes, internal messaging, reminders and tracking patients (e.g., EMRs can identify clients with hypertension that have not been seen in the prior 6 months) (Ornstein, 2001). EMRs can have evidenced-based clinical guidelines or algorithms embedded in their systems.

The literature review supports an integrated strategy for risk factor reduction of vascular diseases.

Internal Survey

An internal survey was conducted with a small number of members of the Stroke Network SEO team (n=8) and determined the feasibility for conducting the environmental scan. The survey results also supported the objective of increasing awareness of the functions and services within primary care as it relates to vascular health.

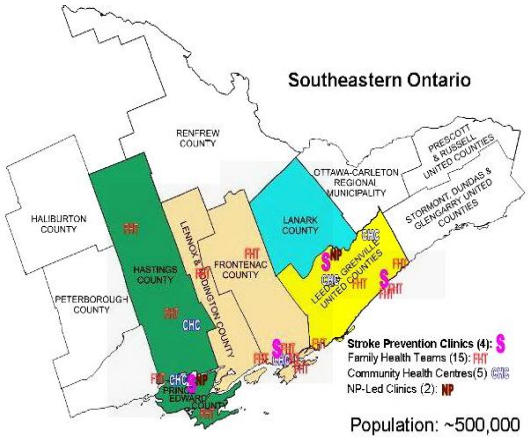
External Questionnaire

Location	Electronic Record
Contact (s)	Links with community/rehab
Team Members	Community resources
Functions and services	Links with specialty clinic
Vascular disease prevention services	Motivational Interviewing
Risk Assessment	Education needs
Depression Screen	Issues

The external questionnaire was developed by different health care professionals on the Stroke Network SEO team. The questionnaire is found in Appendix B. The questions were tailored to increase knowledge and awareness of the functions and services of CHCs, FHTs and NP-led clinics. The questionnaire helped guide the site visits and was not totally adhered to at times as the conversation may have led to more meaningful information.

Face-to-face visits

Face-to-face site visits were essential in order to gain a more in-depth perspective. Visits to 13 FHTs, 5 CHCs and 1 NP-Led clinic and three informal discussions with primary care providers contributed more details for the environmental scan (ES). Visits are planned for the remaining two FHTs and one NP-Led Clinic. The visits began in June 2010 and took place over two years. One to ten members from each team participated based on their availability on the day of the visit. The visits involved broad representation from various organizations such as family physicians, nurse practitioners, dietitians, nurses, social workers, administrative support staff, administrative leads, system navigators and pharmacists. One to two members from the Stroke Network SEO team visited the organizations.



The face-to-face visits captured several elements including meeting the objective to increase awareness of the various services, programs or systems related to vascular health (e.g., smoking cessation, diabetes education, hypertension management and depression screening). The following is an overview of the visits and is also summarized in Table 2. A more detailed description is found in Appendix C. For this report, "patient" and "client" are used interchangeably.

Location

Each primary care organization visited has at least two satellite locations in addition to the "main" site with a range of one to six locations. Some staff "cross-cover" and work in all locations such as allied staff (e.g., social workers and dietitians).

Contact

It was necessary to establish at least one contact at each primary care organization in order to sustain ongoing communication and collaboration. The contact volunteered responsibility for the dissemination of educational opportunities, guidelines and other pertinent information to the rest of their team. One to five contacts were established at each primary care organization.

Team Members

All of the primary care organizations visited have at least an administrative lead, support staff, physicians, nurse practitioner(s) and nurses. This group of professionals is the constant throughout the various different primary care delivery groups. For many of the organizations, there was noticeable variation in the number and type of health professionals and ancillary staff. In addition to the variability of the number and different team members per organization, many organizations mentioned being in "transition" with staff leaving. Some voiced the challenges experienced in maintaining their "usual" quota of different staff (e.g., dietitians, physicians). Besides the "usual" complement of staff (e.g., physician, nurse, receptionists, support staff, nurse practitioner, dietitian and social worker) one might discover at a primary care organization, some other members depending on the community and clients' needs (e.g., pharmacists, system navigators, occupational therapists, physiotherapists, psychologists, data coordinators, kinesiologists, respiratory therapists, physician assistants, practical assistants, nutritionists, health promoters

and health educators). Some primary care organizations share human resources (e.g., psychiatry) and some physicians have partnered with a local CHC and arrange visits with their clients and utilize the space and services provided.

Functions

The functions of the various organizations appear to align with those previously outlined by the Ontario Ministry of Health & Long Term Care. These functions include primary health care, health promotion and chronic disease prevention and management. Many to nearly all of the organizations referred to servicing a large geographical territory and many people with a lower socioeconomic status. Some expressed challenges encountered with apparent high illiteracy rates. Mental illnesses (e.g., suicide rate) appear to be one of their main issues and staff present during the visits expressed appreciation for having social worker(s) on-site and the support of a psychiatrist or a psychologist. One of the primary care organizations reported having a "collaborative mental health model".

Many of the primary care organizations provide a variety of support services. Some CHCs offer an extensive list of services for their clients and families (e.g., Living Well with Pain, Managing Powerful Emotions, Senior's Wrap Around-helps seniors stay at home longer, Mindfulness, Well Woman, Community Kitchens and Good Food Box programs). FHTs are also offering some services on-site (e.g., Foot Care, Well Woman program, Memory Clinic, Wound Management Clinic, Asthma Clinic and a Falls Prevention Clinic).

In addition to the many services offered by different primary care organizations, some services are related to chronic disease management such as "Living well with Diabetes" and "Living Well with a Chronic Condition". Both programs are offered for six weeks and include medication "how-tos", relaxation techniques and tips on eating well.

Some primary care organizations have a television in their waiting room set-up with health promotion messages and information about on-site prevention programs. During one of the visits, arthritis and asthma information was displayed. Most primary care organizations have a web-site displaying on-site services and programs for clients. Many of the websites have a link to a calendar of upcoming prevention-related events. Some of the web-sites have recommended links for clients to organizations such as the Heart & Stroke Foundation.

Vascular Disease Prevention

To assess for client's risk for cardiovascular disease, most to nearly all are utilizing the Framingham risk assessment tool. For the environmental scan, inquiry about depression screening was included given the relationship with vascular health. Some of the staff (e.g., social workers and NPs) referred to using the PHQ-9 (Patient Health Questionnaire)

to screen for depression. One social worker indicated that this tool is embedded in their EMR. Most primary care organizations claimed to have at least one to two services, programs or clinics related to vascular disease prevention (e.g., smoking cessation and diabetes education). Those that did not have organized services or programs were usually the "newer" organizations. These organizations expressed their intentions of providing vascular disease prevention services once staff received required training (e.g., smoking cessation and diabetes education). Two "smaller" organizations reported not having a separate service or program devoted to prevention but having a "system" in place. They indicated incorporating vascular disease prevention within their individual everyday practices.

Nearly all of the primary care organizations have a diabetes education program led by a nurse or a nurse and dietitian. In one organization a nurse works in collaboration with a pharmacist to lead the diabetes program.

Many of the staff in all of the primary care organizations have had training in motivational interviewing and some have undergone the "Choices and Changes" training. Some primary care providers expressed great support for self-management programs and one FHT indicated that their clients have access to parts of their electronic record and update their blood work levels themselves (e.g., lipid levels). Some organizations provide all what is considered to be essential vascular disease prevention services (e.g., hypertension, diabetes, smoking cessation and anticoagulation management). In some primary care organizations, one "chronic disease" prevention nurse manages or leads all of these services. Despite being led by a nurse many expressed that it is a "team" effort with the various vascular health related services. Two primary care organizations indicated that their anticoagulation clinic is led by a pharmacist in collaboration with other members of the team. Many have indicated in relation to healthy lifestyle programs being offered, it's a combination of group and individual counselling that is perceived to produce optimal results. One primary care organization's vascular health program is linked to their "*Global Risk Reduction*" program with services led by different members of the team.

A few primary care organizations particularly the CHCs offer on-site exercise programs. Many of these organizations have walking programs (e.g., pole walking). Some organizations have combined nutrition counselling with exercise into a "healthy lifestyle" program and have utilized the "*Eat Well and be Active*" educational toolkit from Health Canada. These programs are led by a nurse and dietitian and one FHT reported positive outcomes as a result of this program.

"It's great to hear that primary care is offering weight control and exercise programs. Of particular concern lately is that many people I see are overweight and are not active. These two health related behaviours should be at the top of a list of priorities" (Local Specialist, June 2012)

Most of the primary care organizations visited have at least one staff member trained in smoking cessation. Two newer organizations were planning to send their staff for training. Some of the primary care organizations are involved in the STOP study. Many staff participated in the Ottawa Heart Institute Smoking Cessation training program and some have completed the CAMH (Centre for Addictions and Mental Health) Smoking Cessation T.E.A.C.H. program. Two FHTs have expressed that they put their emphasis on smoking cessation and have noted good results. However, they expressed an interest in developing other services besides smoking cessation. Some stated that they could apply the principles and lessons learned in relation to smoking cessation to other vascular risk reduction strategies. Many smoking cessation programs are led by a nurse but one of the FHTs has a social worker leading the program. Some have mentioned partnering with their local Public Health Unit in relation to smoking cessation especially regarding high-risk clients such as pregnant women.

Some of the primary care organizations provide a hypertension clinic or blood pressure program. Some offer blood pressure monitoring with ambulatory devices and others provide more of a "program" including education led usually by a nurse. The program is linked to other lifestyle programs such as relaxation programs and nutrition counselling and to other health care professionals depending on client needs (e.g., financial difficulties and poor diet). One noted successful primary prevention program related to hypertension is led by an RPN. Primary care providers refer patients with one elevated blood pressure reading to the RPN who provides blood pressure monitoring and health promotion education for a period of time. She refers to other health professionals such as a dietitian or nutritionist for nutrition counselling and a social worker for stress management.

Some primary care organizations have indicated success with their on-site anticoagulation service utilizing point-of-care testing (INR monitoring). One FHT studied their service and noted a 13.7% increase in the number of clients in the therapeutic INR range. With traditional methods, people would have to wait for their results increasing their risk and possible loss to follow-up. The FHT that reported positive results had to abandon their program related to lack of funding support for the test strips.

Two rural FHTs reported specialists outside of their community providing on-site regular visits for clients (e.g., internist and a cardiologist).

Of interest in relation to cardiovascular disease is a dental service being provided at CHCs. Some offer oral hygiene to clients including children that are unable to cover the associated costs of receiving this service.

A few primary care organizations indicated they were able to abstract their data and tracked health outcomes. Two FHTs reported the ability to generate pre-populated referral forms containing the client's demographic and relevant clinical information. One FHT has many of the referral forms embedded into the EMR including the required destination contact information. A few organizations have provided their clerks with directives to order repeat blood work that is automatically prompted through the EMR. What has generated great value in relation to the EMR is a result of organized annual training and refreshing for all staff members. Some staff members have taken initiative due to their own interest and have helped built reports that can be generated by other team members (e.g., HbA1c and blood pressure readings of their clients). Some organizations have a "data coordinator" who helps manage the EMR and facilitates the abstraction of pertinent data. One CHC indicated their ability to monitor data for Emergency Department visits and are able to identify any possible gaps in their services. One FHT mentioned the *"Canadian Primary Care Sentinel Surveillance Network"* or CPCSSN study that seems relevant for primary care organizations in this region in relation to tracking chronic diseases.

Referrals to Speciality Clinics

Most organizations are aware of and refer their clients to speciality clinics closest for the client (e.g., Congestive Heart Failure and Stroke Prevention Clinics).

Links with Community Agencies and Rehabilitation

Some of the organizations visited refer their clients to support services off-site within their local communities (e.g., physiotherapy clinics, community support agencies, YMCA, pools, Fitness Gyms, Recreation Centres, "Wellness Clinic" and a "Get with It" walking program). Some organizations have partnered with community agencies particularly recreation centres to provide education sessions about prevention. One staff member has proposed utilizing space un-used in their local community to support an exercise program. Some have partnered with local gyms, pools and recreation centres in relation to improving physical activity for their clients. Some also are linked and refer to the closest cardiac rehabilitation centre.

Table 2
Overview of Regional Face-to-Face Visits

Team Members	Functions	Vascular Health Programs/Services
Client Administrative Lead Physician NP Nurse +/-Dietitian +/-Nutritionist +/-Health Promoter +/-Health Educator +/-PT +/-OT +/-SW +/-RT +/-Psychiatrist +/-Psychologist +/-Pharmacist +/-Kinesiologist +/-Data Coordinator +/-Practical Assistant +/-Physician Assistant +/-Clinical Resource	▪Primary health care ▪General family practice ▪Improve access (e.g., extended hours & telephone advice) ▪Health Promotion ▪Chronic Disease Prevention & Management ▪Provide support services- Examples: "Senior's Wrap Around", "Living Well with Chronic Conditions", "Well Woman-Take 5", Community Kitchen", "Memory Clinic", "Managing Fatigue", "Aboriginal Health", "Understanding Depression" programs	▪Hypertension (e.g., HIM/H&S Foundation) ▪Anticoagulation (e.g., program coordinated by a pharmacist) ▪Diabetes Education ▪Diabetes Services(e.g., Rideau Valley Diabetes) ▪Smoking Cessation ▪Dental Health ▪Exercise (e.g., Senior's Fitness) ▪Healthy Nutrition (e.g., "Craving Change") ▪"Healthy Lifestyle" (adaption of Health Canada's Eat Well & Be Active education Toolkit) Comment: "would like to integrate prevention into their practice with less emphasis on referral out to programs"
Referral to Specialty Clinics	**Links with Community Agencies & Rehabilitation**	**Educational Interests**
▪Most aware of speciality clinics ▪Request to link more with speciality clinics A couple of comments: "effectively manage CDPM on their own"	Examples: Wellness Clinic, walking programs such as "Get With It", local recreation centre, Land-O-Lakes Community Services, Cardiac Rehabilitation. Comments: "rural area does not have adequate community exercise or recreation program"; "would like to know more about community support services "	▪Hypertension ▪Depression ▪Behaviour Change & Motivational Interviewing ▪Current evidence-based guidelines related to prevention

Note: Visits took place 2010-2012; see Appendix C for more detailed information; Request for further details: contact murphyc2@kgh.kari.net

Note: **NP**: Nurse Practitioner, **OT**: Occupational Therapist, **PT**: Physiotherapist, **SW**: Social Worker, **RT**: Respiratory Therapist, **HIM/H&S** Foundation: Hypertension Management Initiative from the Heart and Stroke Foundation, **CDPM**: Chronic Disease Prevention and Management

Opportunities

Some of the barriers and enablers identified during the on-site visits to implementing vascular disease prevention strategies within primary care align with the literature review. Time and resources were recounted over again during the visits. One of the barriers identified in relation to resources seems to occur when organizations are in "transition" or staff are "coming and going":

"We'd really like to have more prevention services but struggle with just keeping up with the day-to-day routine and don't really have extra time to fit in health promotion activities"

One unexpected barrier perhaps to consolidating or integrating efforts expressed was the inherent lack of trust toward "outside" organizations that wish to help. Another barrier identified repeatedly was "too" many evidence-based practice guidelines and not having the time to keep up with all the latest evidence.

Many expressed that the social determinants of health are an important consideration in relation to prevention. The recent "*POWER*" study continues to reaffirm consideration of socio-economic status when planning prevention programs (Bierman et al., 2009).

"The cost of ASA is an issue for our patients. Some of our patients just stop taking their medications because they can't afford them" (NP from FHT)

Many especially reported that they perceive an increase in the number of older clients with multiple issues. In this situation, many expressed the need for improved linkage with others in relation to secondary prevention (e.g., speciality clinics and community support services). Some expressed that they are seeing more obese clients, especially young obese clients and more clients with diabetes especially young clients with diabetes.

Some requested guidance about what program or service should be their focus in relation to vascular disease prevention given their limited resources.

Enablers identified also correspond with the literature such as more reliance on different team members, collaboration of efforts and better use of one's electronic medical record.

One main opportunity to explore is an idea raised that rang consistent bells in other organizations is less reliance on outside organizations for services that can be provided on-site. Many expressed interest in a global vascular disease prevention service within their own primary care organizations. Working together can support efforts to bring vascular health closer to home for people in local communities.

*"**Our patients are not willing to travel down the road** a short distance as many cannot afford gas and have limited finances and really they just won't go"* (NP from FHT)

If the program is simple and integrated, there is more chance of successful delivery that would ultimately lead to building capacity and less reliance on outside distant organizations. Some feel that they are able to manage well but are looking for more innovative ways to improve prevention services that they provide.

Another main opportunity identified was to **share lessons learned and tips for success from other primary care organizations**. Sites visited were particularly interested in knowing:

- The number and type of professionals involved in prevention programs.
- How to initiate vascular disease prevention services such as a blood pressure service (find out more about outcomes of participating in the Heart and Stroke Hypertension Management Initiative study), an anticoagulation service and an exercise program within primary care.
- How to sustain prevention programs. Many expressed an interest in starting a safe exercise program on their site or collaborating with a community exercise program but want to know the particulars about "how to make this happen".
- Some expressed they have had success but struggle with sustaining their programs such as an anticoagulation service due to the cost of the test strips for the point-of-care blood work.
- How to expand or grow their prevention programs to be able to offer their prevention services to more clients.
- How others are able to attract and sustain the number of participants in their programs. Some programs get started but "fizzle" out due to lack of interest from the community.

"I wonder what the best method is for reaching patients or gaining their interest in relation to prevention. What do others find works-newsletters, a website or do many things help?" (Executive Director, Primary Care)

- How some primary care organizations are able to effectively utilize their EMR to track important health indicators, abstract data, run relevant reports and generate automatic pre-populated referral forms with required clinical and demographic information.
- How some organizations are able to trigger reminders or prompts within their EMR (e.g., reminders in relation to blood pressure measurements or needed blood work).

Many other common reported opportunities for collaboration regarding areas to be addressed were identified such as:

- Utilization of the **EMR** to systematically identify patients at high risk for a vascular disease. Improved communication processes by having a more consistent way of

entering information. Would like to have **one integrated vascular health flow sheet** such as expanding the existing diabetes flow record to include other risk factors.

- Many would like to know **what health indicators would be most important to track** given limited resources and time.
- The ability to **link clients to community resources** electronically through the EMR. For those that do not have an EMR, develop a way to link them to community resources.

"We have many good resources in our community. The problem lies in recognizing the need; then making the connection. We have to be more aware of the resources in our community" (family physician, FHT)

- Some rural organizations indicated that they have limited community recreation services.
- Request for **one consolidated vascular risk identification tool.**
- Request for **one evidence-based practice guideline** related to vascular disease prevention such as utilizing the *"Canadian Cardiovascular Harmonized National Guidelines Endeavour"* (C-CHANGE). C-CHANGE is one of the recommendations of the Canadian Heart Health strategy action plan (Tobe, 2011).

*"There is **too much duplication** and I would like **more consolidation of efforts** toward one user-friendly guideline"* (staff member, FHT)

- **One integrated global vascular disease prevention program** as noted at some of the primary care organizations.
- When and how to **partner with others if needed** as seen with the successes identified with working with the Alzheimer's Society and the Arthritis Society.
- Improved **linkage with speciality clinics** and an easier referral process.
- Many expressed an interest in clinicians from speciality clinics providing on-site or OTN education sessions regarding current guidelines. Many indicated that they have **OTN equipment** and admitted that it **could be utilized more.**

*"Just keep working away and **don't give up trying to work together** in relation to prevention. More can be accomplished this way!"* (family physician, FHT)

- Some staff members thought it would be great to have a hypertension workshop closer to their local community.
- Continue efforts around the promotion of **self-management learning opportunities.**

"We need to engage our patients in understanding their risks and being able to be a part of the solution" (family physician from FHT)

- One FHT member indicated the importance of thinking more regionally in order to improve equitable access to services

(e.g., if a diagnostic test is not available in one community, should have equitable access to this service in another community).

Table 3

Summary of Environmental Scan Themes and **Opportunities** for Planning

- Global Integrated Vascular Disease Prevention Program within primary care
- What would be the vascular-related indicators that should be tracked consistently
- Improve functionality of the EMR /Improve knowledge of application:
  - -pre-populated referral forms
  - -generate reports
  - -data evaluation
  - -link to community resources
  - -consistent way of documentation among providers
  - -one data flow sheet
  - -reminder prompts for clinic visit and tests (clerk can facilitate with directives)
  - -include all staff in regular EMR refresher training
- One vascular health integrated guideline
- Improved linkage with speciality clinics
- More sharing of lessons learned from initiating programs or services (e.g., how to attract clients and keep them engaged; how to prepare for an on-site exercise program)
- Sustaining programs or how did others maintain successes
- How to expand successful programs or services
- Educational updates for related vascular topics via on-site or OTN(e.g., behaviour change/motivational interviewing)
- Fund test strips for point of care blood work (e.g., INR level)
- Further collaboration by working with others; more partnering and sharing of resources (e.g., public health, health networks)
- Consideration of socioeconomic barriers to prevention services (e.g., transportation costs)

Note: Information corroborated with the on-site visits by presenting an overview of the environmental scan results at the *Think Tanks.*

Think Tanks

One consistent theme that surfaced from the environmental scan was that many primary care staff would like to learn about vascular health services or programs from other primary care organizations.

To delve more deeply and explore further primary care needs in relation to vascular health, *Think Tanks* were held in three different Southeastern Ontario areas: Belleville, Brockville and Kingston. The objectives for the *Think Tanks* were to:

1) Discover tools, resources and programs already in place that seem to be working well.
2) Identify other tools, resources and programs that are needed.
3) Determine priority needs per area across organizations.

4) Begin to examine the prioritized needs together and begin thinking about innovative, feasible and sustainable ideas for planning.
5) Begin to discuss how to build on those resources, tools and programs already in place to determine collaboratively what is needed to support vascular health.

The *Think Tanks* were an opportunity to begin discussions about enabling the prevention of vascular disease and to figure out how to easily apply some of the identified tools, resources or programs into practice.

Planning for the Think Tanks

A small planning group for the *Think Tanks* met twice with member representation from the SEO Health Collaborative and Primary Care consisting of different professions from different rural and urban locations (see Appendix D for a list of the planning committee members). The role of the planning group

was to help plan for the open discussion *Think Tank* event.

The 3-hour *Think Tanks* were planned to follow the environmental scan and in anticipation of the pending announcement of the Ontario Integrated Vascular Health Blueprint from the Ontario Integrated Vascular Strategy group. The three *Think Tanks* were designed to give people an opportunity to:

- learn from each other
- determine together what the priority needs are in relation to vascular health
- decide collectively what is needed to make it happen

The planning template for the *Think Tanks* also involved determining the target audience. The invitations included: primary care representation from different primary care organizations (e.g., CHCs, FHTs, FHO and solo practitioners), different locations and different professions (e.g., administrative leads, physicians, nurse practitioners, nurses, health promoters, nutritionists, pharmacists and dietitians); public health leads; and representation from the Ontario Integrated Vascular Strategy.

Introductions would emphasize the critical role that primary care plays in vascular health. The introduction of the *Think Tanks* would also include information about various networks working together: Nationally-C-CHANGE guidelines, Provincially-Cardiac Care Network, Ontario Stroke Network, Ontario Renal Network, Diabetes Strategy and Heart and Stroke Foundation forming the Ontario Integrated Vascular Health Strategy group and Regionally – SEO Health Collaborative. The recognition at every level for the need to work together in partnership with primary care and build collaboration was emphasized.

The Think Tank Plan

Details of the *Think Tanks* (templates of Invitation and Agenda are found in Appendix E) included:

1) A brief overview of preliminary environmental scan results to set the stage.
2) Presentation about the Ontario Integrated Vascular Strategy.
3) Groups were divided into 6-8 people.
4) First discussion involved what a robust vascular health program would look like. A few minutes were dedicated to speaking to the person next to them about describing a case or a situation where they saw vascular health being managed or delivered at its best. An additional period of time was set aside for the entire table to discuss and a dedicated scribe consolidated the ideas onto flip chart paper.
5) Looking at the flip chart paper notes about the ideal vascular health program, members discussed the tools resources or programs that are in place and are working well. The scribe transcribed the ideas onto flip chart paper.

6) Participants then wrote on coloured post-its (colour designated delivery groups- CHC, FHT, Solo/FHO, Other/NP-led clinic) their individual ideas about what is needed to make it happen (what tools, resources or programs are needed). Time would be allotted for the table to discuss these individual ideas. The table participants then organized their post-its on large flip chart paper.
7) Time was allotted for each group to report to the larger group their "grouped" ideas in rotating fashion until all ideas were brought forward.
8) Collectively the ideas related to the "needs" were grouped into common themes.
9) Participants were given 6 "dots" and they were asked to place their dots on what matters most (e.g., could place 1 dot on 6 themes or 6 dots on one theme). During the ranking, participants were asked to consider:
    - Feasibility
    - Impact
    - Evidence
    - Applicability
    - Sustainability

    OR
    - Should DO
    - Want to DO
    - Can DO
10) After the needs were ranked and the top three needs were revealed, participants then chose one of the top 3 needs to begin an action plan. A dedicated scribe transcribed possible local, regional and provincial action plans. Discussion involved: some of the enablers, barriers and sustainability needs; who would be involved; possible time lines; and thoughts about how to measure success.
11) Focus groups reported back on their action plan and discussion occurred for a brief period of time with the larger group.
12) Closing notes included notice of a short survey to be completed and possible plans for follow-up. It was mentioned that the intent for follow-up is to continue to work together to keep the momentum going from the *Think Tanks*.

Think Tank Overview

Vision

What does a robust Vascular Health program, service or system look like?

Hastings & Prince Edward Counties (HPE):

A simple, collaborative, proactive, and accessible approach would be ideal that is patient-centred and community-based where different health care professionals can openly share resources. Accessibility would involve **more access** to the electronic medical record (EMR). The EMR should be utilized more (e.g., triggers for clinic visits and diagnostic tests). A robust program would have one integrated clinical pathway, standardized metrics and incorporate applicable and transferable components that are working well in other organizations (e.g., the Peterborough Comprehensive Vascular Disease Prevention Initiative). Included in the program would be regular vascular health checks for people including blood pressure measurement on everyone including young people. A robust vascular health system involves partnering more (e.g., public health and YMCA) and engaging solo practitioners in vascular health planning or programming.

"We need to work with our local communities. Vascular health means people taking ownership for wellness and having the support they need to do that. It's about working together"

Lanark, Leeds & Grenville Counties (LLG):

A robust vascular health program would be community-based, accessible and integrated and include services such as smoking cessation, blood pressure management, mental health, diabetes education, safe exercise and nutrition counselling. Ideally this program would include children and making activities accessible for children. The program would include components from other successful prevention models (e.g., Champlain cardiovascular disease prevention programs). The Ottawa Heart Institute Smoking Cessation program design could be applied to other vascular disease risk factors. The EMR could be utilized more to enhance consistent communication and generate referrals. Improved quality of data and vascular health standards to follow were listed as elements for a robust vascular health program. Collaborating with others was identified including cardiac rehabilitation, the Stroke Prevention Clinic, Brockville General Hospital, community support services, Public Health and Community Care Access Centre.

Kingston, Frontenac, Lennox & Addington Counties (KFL&A):

A proactive, interprofessional, predictive, cost-effective, sustainable program that is patient-centred, recognizes cultural diversity and is community-based would be ideal. Adopting elements within the Ottawa Heart Institute Smoking Cessation program for other risk factors should be

considered. Included in this robust vascular health service or program would be an organized screening system, prevention and management of obesity, smoking cessation, treatment and the development of long-term plans.

Common elements among all three areas (HPE, LLG & KFL&A) related to a Vision for a robust Vascular Health system, program or service

- Person or Patient-Centred
- Accessible
- Pro-Active
- Working together
- Community-based
- Utilize other established vascular disease prevention programs
- Standardized tools
- Program with: screening, prevention including self-management education and a plan for follow-up

What Tools, Resources, Programs contribute to optimal vascular health? What is Working Well?

HPE:

The various primary care delivery group models (CHCs, FHTs and NP-Led Clinics) have many tools/resources in place such as dedicated staff, administration, team approach and follow-up procedures. Graduated programs foster engagement and are easier to apply when it is a step-by-step approach. Consistent messaging in the media, on-line social networking combined with face-to-face encounters, are effective influential tools. Already established programs or services in place can be adapted such as the Peterborough CVDPMI and the Upper Canada FHT's Global Risk Reduction program. Continued use of the "vascular" term and integrated vascular services on-site. Starting early in schools for smoking cessation has helped and group diabetes visits have been successful. Developing partnerships such as with the YMCA has been effective. Increasing patient's knowledge of various prevention programs and ensuring that the patient feels that they are being heard helps to make the vascular program more successful. Having access to an information technologist and alerts built into the EMR for overdue tests or appointments contributes to a successful program. Evidence-based guidelines are useful tools (e.g., C-CHANGE) that could be embedded in the EMR.

"I like having ease of access that is quick with no hoops"

LLG:

A concise list of tools, resources and programs that are working well was relayed with an emphasis on patient self-management:

- Framingham tool
- Living Well program
- Seniors Fit activity program
- Rideau Valley Diabetes
- Vascular Protection Clinic (Perth & Smiths Falls District Hospital-Perth Site)
- Smoking Cessation, Diabetes Education, Blood Pressure Clinic

- Get with It walking program
- Community Centre walking facility
- Cooking programs such as community kitchens. Good Food Box program
- Cardiac Rehabilitation (Brockville General Hospital)

KFL&A:

Similar tools, resources and programs were identified at the Kingston *think tank*. The EMR was identified as a tool when programmed properly is effective for reviewing relevant tests and patient information. Being knowledgeable of the EMR's capabilities and having information technology support is very beneficial. Another helpful technology identified was point-of-care blood testing such as HbA1c and INR levels. Having a responsive system in place when the patient requires certain services such as diabetes management and being able to connect with other community programs such as cardiac rehabilitation is advantageous. Effective programs identified were the "Global Risk Reduction" program, the Chronic Disease self-management programs, the Better Beginnings program, After-School programs encouraging healthy living and the Ottawa Heart Institute Smoking Cessation program.

Common Elements across all three locations related to: What is Working Well?

- Smoking cessation program
- Diabetes education and services
- Self-Management programs
- Partnering, connecting or linking with other groups, clinics, networks or community groups (e.g., Vascular Protection Clinic, cardiac rehabilitation, YMCA)

What Tools, Resources or Programs are Needed?

Many ideas were generated related to what is needed to support vascular health in the local areas. The comprehensive lists displaying all of the participants' contributions are listed in Appendix F. The following is a review of the top three needs in each local area identified in the "think tanks".

The Top Three Needs

HPE:

1-EMR
2-Engage Practitioners not Associated with Multidisciplinary Teams
3-System Navigation

Further development of a reliable, effective and user-friendly **EMR** was identified as a top priority in the HPE area to help improve quality, communication, access and safety.

- Development of shared tools such as flow sheets that populate the patient's clinical information and screening tools to provide a consistent method for communication among different health care professionals.
- An integrated health information system with improved flow between

all involved with the patient's care. Embed evidence-based guidelines.
- Increased access to reports and relevant aspects of the patient's chart. A patient portal could be created directly for hospitals, diagnostics and provincial programs.
- Develop a user-friendly system for identification of patients at high risk for vascular disease.
- Develop useful templates and prompts within the EMR (e.g., triggers for overdue diagnostics & clinic appointments and risk factor screening).

The next priority relates to having a **process in place to engage primary providers not currently practicing in a CHC, FHT or NP-Led Clinic.** Of interest in relation to this priority is that only one participant's identified need received many votes. This demonstrates support from group delivery models (e.g., CHCs) as they identified this as a high priority need. This "need" tied for second place with system navigation.

"I really appreciate being part of this think tank experience and it was interesting to see that although we come from different primacy care organizations, we are alike in not only some of the services we provide but in what we want in relation to ideal vascular health"

System navigation for improved collaboration could be facilitated by having one streamlined referral process (e.g., one form) for vascular-related diseases. Ease of access was mentioned from different health care professions including rural areas (e.g., videoconference, telephone, and computer link). A suggestion to facilitate system navigation was to have a dedicated person coordinate vascular services or programs. This would help reduce duplication and improve tracking of vascular health outcomes.

LLG:

1-Public Policy (Funding & Resources)
2-Healthy Lifestyle
3-EMR

The top priority in the LLG area concerned **public policy** including adequate funding and resources. Of interest, this seemed to generate interest from both CHC and FHT participants. Advocacy for programs as a result of gaps in public policies especially for family centred-initiatives was discussed.

- Equitable **access** related to improving access to care (e.g., transportation) and addressing social determinants of health (e.g., ensuring medication coverage for all vascular disease-related medications such as smoking cessation; helping the working poor). Accessing easily the cost of medications. Access to physiotherapy, dental health care, mental health care.
- Provide funding for exercise.
- Improvements related to seniors (e.g., care in the home to include monitoring of nutrition, blood pressure and blood work).

Ambulatory primary care for seniors. Improve seniors' community services (e.g., community centre and walking groups).
- Develop innovative programs to increase activity such as gardening in local schools.
- Improved worker-friendly schedules.

The next priority need identified involves **healthy lifestyle** improvements. Some of the needs in this section seemed to overlap with public policy (e.g., working collaboratively to improve nutrition and physical activity in communities, primary care and specialty clinics). An extensive list was generated under the healthy lifestyle theme:

- Healthy youth programs with funding for equipment.
- Healthy lifestyle plans could include schools, after-school programs, community exercise programs, organized sports and volunteer programs.
- Providers provide prescriptions for physical activity/exercise. Could provide prescriptions for lifestyle recommendations for clients with hypertension.
- Coordinated vascular health centre in local communities offering exercise, healthy food advice, weight management, smoking cessation and medication assistance for secondary prevention. This community-based centre could provide recreational activities.
- Develop on-site primary care programs coordinated by a nurse involving lifestyle change by working on goals of treatment together, motivation and education.

"A community-based healthy lifestyle program is not just for people who have had events; primary prevention should be the focus"

"If something is happening down the street why do we need to do it. We need to avoid duplication of efforts"

EMR and eventual electronic health record (EHR) was the third priority discussed at the LLG think tank. This priority seemed more popular with the FHT participants that were present and centred around integration and communication improvements.

- One integrated EMR across the entire continuum of care with improved flow with hospital, diagnostics, Community Care Access Centre and specialists.
- Embed validated tools and guidelines within the EMR.
- Establish alerts or triggers based on best evidence.
- System identification of clients at risk for vascular disease embedded into EMR.
- Consistent documentation including assessment. Embedded flow sheets.
- Improve ability to extract relevant quality data and generate useful reports. EMR can be utilized to

evaluate progress in relation to client's health outcomes.
- Improve access for the patient to their EMR and eventual EHR.
- Provide a link to social media and provide "photo" capability.
- Need time for training and increasing one's knowledge related to functionality of the EMR.

"If we had a systematic way of identifying those at risk and then streaming them to effective programs, that would be a great start"

KFL&A

1-Quality Improvement (Data/EMR)
2-Integrated Vascular Health Program & Community Partnership
3-Clinical Tools (EMR, Guidelines)

The first priority need identified for participants from the KFL&A area was **quality improvement** specifically in relation to abstracting quality data and analyzing the information.

- Time to analyze the data and obtain feedback from the team.
- Ability to link or have one integrated EMR across the continuum.
- User-friendly EMR.
- Improve everyone's knowledge of the EMR's functions/capabilities and have information technology or data coordinator provide support.
- Improve accessibility for any health care provider and the patient.
- Determine one or two measures to start as a guide for assessing process and quality.
- Infrastructure for quality improvement related to involving the patient and building effective processes for improved vascular health.

The next priority need identified was to develop an **integrated vascular health program** close to home **and improve community partnerships.**

- Develop on-site vascular programs including: diet, exercise, smoking cessation and "psychosocial" services.
- Free community activities to promote exercise and health for all ages. Family-based activity and nutrition programs.
- Adequate staffing of health programs with designated "coordinators" who would also provide program evaluation.
- Adequate resources such as health promotion materials.
- Include self-management, motivational interviewing, and healthy behaviour change programs involving designated team members. Adapt OHI smoking cessation tool for healthy living program including exercise.
- Include youth programs.
- Increase accessibility from "cradle to the grave" for prevention programs; improved access to transportation, healthy food and nicotine replacement therapy.

- Better partnerships in relation to food security, other community organizations for life skills training such as cooking classes, exercise facilities, schools, public health, other primary care organizations and chronic disease networks.
- Sustain partnership for vascular health.
- Utilize a "virtual" team approach for sharing where no vascular health programs or services are in place.

The third prioritized need identified was **clinical tools** such as point-of-care testing. Again some common needs were discussed in relation to the EMR such as screening tools and integrated evidence-based guidelines.

- Point-of-care testing such as INR and HbA1c blood test monitoring. Funding for the test strips.
- Systematic method for identifying clients at risk for vascular disease. Screening for patients at risk (e.g., screen for hypertension: check blood pressure and record measurement at least every 3 years). Embed validated risk screening tool such as the Framingham Risk Assessment tool within the EMR. Need consensus about what validated tool to use and then consistently utilize the tool.
- One universal flow sheet.
- Develop a registry of patients with risk factors (e.g., learn more about the Canadian Primary Care Sentinel Surveillance Network-CPCSSN).
- Prompts or triggers for providers.
- User-friendly EMR.
- Develop a health information network.
- Embed evidence- based guidelines within EMR (e.g., guidelines for antiplatelet therapy for secondary prevention).

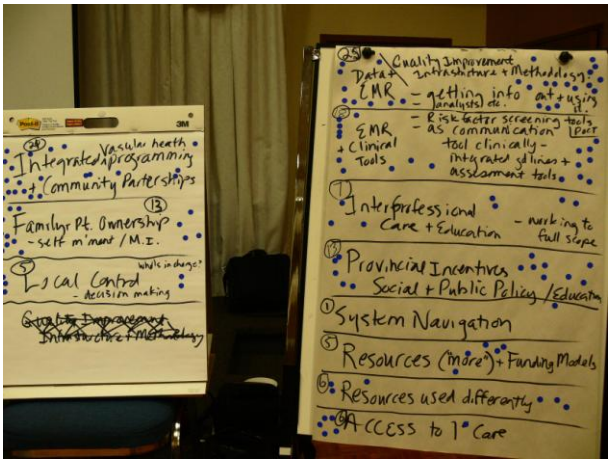


Table 4
Top 3 Needs Identified at Primary Care Think Tank

HPE	LLG	KFL&A
1. EMR (e.g., user-friendly system ID of high risk patients; shared tools such as clinical flow sheets)	1. Public Policy Funding & Resources (e.g., equitable access such as dental health and transportation; access to smoking cessation meds	1. Quality Improvement Data/EMR (e.g., start with 1-2 measures; increase training; data coordinator)
2. Engage Practitioners not associated with multidisciplinary teams (e.g., develop partnerships with other organizations)	2. Healthy Lifestyle (e.g., coordinated vascular health centre)	2. Integrated Vascular Health Program & Community Partnership (e.g., on-site vascular health programs; better partnerships)
3. System Navigation (e.g., one vascular health referral form; dedicated person)	3. EMR (e.g., embed validated tools & guidelines; consistent documentation)	3. Clinical Tools EMR, Guidelines (e.g., POC testing; registry of patients with risk factors)

Note: Details of participants' identified needs are found in Appendix F. During the *Think Tanks* participants grouped their needs and ranked the needs according to a voting system.

Common Elements across all three locations related to the top 3 Priority Needs

Some common themes surfaced when reviewing the top three needs (Table 5). Similar themes were also noted among the lower "ranked" or priority needs.

Innovative ideas were raised: prescriptions for lifestyle interventions- perhaps could be automatically generated from EMR; more use of social media, a Health Information Network, development of a community resource directory for prevention including an electronic version related to vascular health prevention.

Table 5

Summary of Think Tanks and **Opportunities** for Planning

- EMR seemed to be the common thread between all three locations. Many hope for **one integrated EMR** to become a reality. Ongoing training to improve local knowledge of the EMR is required. Expand functionality of the EMR to include such elements as **reminder prompts f**or visits and testing (more medical directives); ensure new applications or **improvements are user-friendly**. Embed agreed upon evidence-based guidelines and validated tools within the EMR.
- Integration related to a vascular health prevention program. Aim for **one-integrated vascular disease prevention guideline**.
- **Key lifestyle priorities within programs or services** related to vascular health: smoking cessation, physical activity and a healthy diet. Include people who have not had an event; include all ages.
- **Improved access to prevention programs** (e.g., accessible transportation).
- **Continue to build partnerships** and improve collaboration between primary care organizations, networks, hospitals, public health and other members involved with the circle of care and prevention.
- **Exercise** seems to be a priority on all the lists including engaging youth. Starting early seems to ring a familiar bell.

Note: Information summarized from participants' contributions during all three Primary Care *Think Tanks* (HPE, LLG and KFL&A). Details are located in Appendix F.

Action Planning

Many needs were identified in relation to vascular health as a result of the *Think Tanks* (see Appendix F). This will be very helpful for planning purposes when others such as members of the SEO Health Collaborative and primary care providers begin to collaboratively determine how best to support vascular health locally and regionally. The *Think Tanks* also provided an opportunity to initiate planning in relation to the top three priority needs. Transcriptions of the Action Plans are located in Appendix G. This is only the beginning of the "planning" phase to address the prioritized needs.

HPE Action Plans

EMR

Two barriers to implementation of the EMR were identified: lack of system integration with different EMRs between primary care organizations and across the continuum of care; and lack of an up-to-date billing system related to different scopes of practice within the primary care teams. A collaboration of efforts between different partners would be required to help facilitate integration (e.g., information technology, hospital administration, specialists and primary care provider representation).

Action plans would involve:

Local/Regional Action Plans-

- Hospitals working with primary care would designate one primary care provider to send necessary clinical information to improve the continuity of care.
- Improving the electronic patient data flow between organizations (back and forth).
- Improving collaboration between organizations related to sharing patient information including the patient's health profile or history and flow sheets.
- Sharing of tools such as documentation and forms' templates.
- Obtaining measurements related to effectiveness of the system could include access (e.g., examining demographics and number of clients), patient satisfaction (use of surveys) and timing (e.g., when reports are received and processed).

Provincial Action Plan-

- Implement a consistent integrated electronic medical record and carry out plans for an electronic health record (EHR).
- Support EMR initiatives (funding).
- Reduce barriers for other health professionals such as NPs (e.g., referrals and diagnostic requests).

Primary Care Engagement

Some of the barriers identified reflect health care professionals working within their own "silos" of care. Many could feel threatened by change even positive change as it is something new and given busy practices, health care professionals

don't necessarily have the time to adapt changes to their practice.

Local Action Plan-

- One recommendation was easily accommodated related to physician availability to attend the SEO Health Collaborative. The time change was acceptable to other members of the SEO Health Collaborative.
- Circulate surveys to other primary care providers to obtain their feedback about vascular health prevention needs and possible action plans.
- Examine methods to facilitate collaboration such as utilizing CHC space after-hours and receiving access to programs and services provided by interprofessional members of the team (e.g., Living Well with Chronic Conditions-6 week program).
- Primary Care Physician Lead for the South East LHIN to continue on-site visits with other primary care providers to obtain feedback for improvement in relation to efficiencies and quality.
- Suggestion to "re-brand" CHCs as a "community program provider".

Regional Action Plan-

- SEO Health Collaborative should continue to meet and work with primary care to determine how best to support vascular health regionally.
- Primary Care Physician Lead of South East Local Health Integration Network will attend meetings with other chronic disease networks (e.g., Cancer Care Ontario).

Provincial Action Plan-

- Continue to improve access issues such as human resources in relation to primary care.
- Primary Care Physician Lead participates in provincial primary care initiatives.

System Navigation

An identified enabler is to have assistance with navigation in health promotion activities. A system navigator would also identify acute care occurrences occur and notify primary care providers involved in the client's care.

Local Action Plan-

- Begin to streamline internal referral processes, perhaps designate team members to be responsible for certain programs or services.
- A system that generates automatic referrals depending on health indicators.
- Improve communication among primary care providers.
- Ensure referrals are sent to the appropriate external person or organization. Require up-to-date referral information (e.g., specialist list).
- Utilize the EMR to pre-populate referral forms with necessary clinical and demographic referral information.

- Increase and improve vascular disease prevention services for clients with mental health conditions. Provide or adapt applicable programs for this patient population. Need to extend collaboration for this population and utilize mental health "friendly" strategies.

Regional Action Plan-

- One integrated vascular health clinic (e.g., integrate Stroke Prevention Clinics with Diabetes Services).
- Integrated Electronic Health Discharge Summary.

Provincial Action Plan-

- Wait time strategy to include referral time from primary care provider to when seen by specialist.
- Support funding for system navigators within health care organizations (e.g., hospitals, FHTs, CHCs, Clinics).

LLG Action Plans

Public Policy

The group indicated that public policy would be a challenge as it encompasses a much larger scale for change including political and social. It was expressed by the group to start with "smaller" local issues as there would be a chance for more success with local policy development.

Local Action Plan-

- Promote better utilization of already existing resources (e.g., Public Health and students) through collaboration and communication
- Continue to break down existing silos and develop more partnerships.
- Develop an inventory of current services, programs and resources for all providers in relation to vascular health prevention.
- Link the vascular health inventory of programs and services to the EMR.

Healthy Lifestyle

Locally a barrier was identified in continuing lifestyle change self-management programs as a volunteer-led program. Discussion for action included youth programs. Effective healthy lifestyle programs for youth in relation to prevention would have a greater impact with support from local school-boards.

Local Action Plan-

- Adapt lifestyle change programs to include defined goals with measurable outcomes.
- Encourage more self-management groups and training around self-management and motivational interviewing within primary care.
- More recognition that rural areas require appropriate and applicable program planning.
- More consideration of collaboration and coordination of lifestyle programs within communities (e.g., physical activity).

Regional Action Plan-

- Implement the provincial Ontario Chronic Disease Prevention plan.

Provincial Action Plan-

- Focus on programming at all levels to help plan for funding and sustainability.
- Adopt and apply a Patient-Centred model.
- Measure and track costs (e.g., MD, imaging and allied health).
- Measure wait times for specialists from time of referral from primary care provider to time seen by a specialist.
- Measure indicators-vital signs such as blood pressure readings (could also apply to a local action plan).

EMR

Local barriers were identified in relation to different practice patterns and a lack of consistent documentation. Enablers discussed were the engagement of different primary care providers and determination by consensual agreement of evidence-based guidelines to adapt within the EMR. Another local enabler identified in relation to the EMR was useful and effective software applications and qualified staff who are comfortable with the functions of their EMR.

Local Action Plan-

- Improve documentation practices by inputting required information in a consistent manner by all health care providers. Measurements could be obtained in the number of errors related to consistency.
- Agree upon valid screening tools and integrate the validated tool within the EMR for all providers.
- Provide regular training and "refresher" training in relation to the EMR (e.g., how to extract relevant health indicators).

Regional Action Plan-

- Facilitate the integration of EMR with other organizations (e.g., hospitals). Privacy issues would have to be explored.

Provincial Action Plan-

- Continue sharing knowledge transfer between organizations (could be a regional plan). A barrier identified with implementing a provincial action plan was related to software licensing. Success would be the implementation of the planned electronic health record (EHR).

KFL&A Action Plans

Quality Improvement/EMR

Multiple EMRs and a lack of interoperability is a significant barrier to quality improvement. A barrier identified by the KFL&A group discussing a local and regional action plan for their EMR was due to a system with multiple providers with many different patient record systems. Another barrier was some utilize a "paper" system and there

are different organization systems within the EMRs (inconsistent documentation processes). One enabler identified would be to have the system force data entry (e.g., can't move on in the system unless this is completed or recorded) and provide automatic cues or prompts to help navigate through the electronic record. Provincially, funding could be a barrier (e.g., the province does not fund data collection, abstraction and analysis of reports).

Local Action Plan-

- Develop infrastructure in relation to the EMR and increase training for all primary care providers and support staff. Improve upon the quality of data entry and capture information within the EMR in a consistent way and in a consistent location.
- Examine what health elements are essential for data collection.
- Share flow sheets, tools and other relevant data templates across organizations (could be a regional plan).

Regional Action Plan-

- LHIN to collect and share quality improvement information with primary care providers and Public Health.

Provincial Action Plan-

- Build in user-friendly reporting features or capabilities with new EMRs.
- Utilize a common quality improvement methodology.
- Track common and relevant health indicators. Establish evidence-based benchmarks.

Integrated Vascular Health Program

Local Action Plan-

- Emphasize increase awareness of available recommended community resources and if applicable refer to the already established community resources first. If not available, then utilize other resources such as CHCs and Diabetes Education Centres.
- Increase exposure of other valuable and recommended resources (e.g., Diabetes Education Centres).
- Group patients with similar vascular-health related issues and collaborate with others to provide appropriate evidence-based services.
- Designate team members to coordinate services and programs related to vascular health (e.g., designate one team member to be responsible for leading self-management groups and programs).
- Define roles and responsibilities of different team members involved in a local and integrated health strategy, program or service.
- Improve coordination regarding services, programs and resources with other agencies or organizations such as Public Health Units.
- Increase access to local vascular health related programs involving: activity, smoking and nutrition.

Collaborate with others when planning these programs.

- Improve access to vascular disease prevention programs and facilitate the removal of barriers.
- Involve the patient or client and include them in plans for vascular health-related programs or services. Planners should ask the patient or client what they think is needed (e.g., "what will help you to change your lifestyle to improve your vascular health").

Clinical Tools (EMR)

- Seek input from primary providers and involve primary care in the development of clinical tools.
- Invest in time and training of all staff. Training could include ensuring the inputting of relevant health data. Build into the system relevant health indicators that can be abstracted easily (e.g., blood pressure, weight and waist circumference).
- Embed validated cardiovascular disease risk assessment tools within the EMR such as the Framingham tool. Need to have consensus on an appropriate and validated tool and use the tool consistently.
- Provide support for establishing blood pressure management clinics or services including screening.
- Integrate the management of blood pressure (e.g., program) within primary care organizations and utilize other resources if needed such as the Heart and Stroke Management Initiative.

Table 6
Common Themes in the Action Plans across all Three Locations

- **EMR improvements such as integration within different EMRs.** Lack of integration was seen as a barrier and facilitating the integration of the EMR between organizations was identified as an action plan item for the region.
- **Sharing of information** or knowledge transfer across organizations. Many felt that the sharing of templates, flow sheets, tools and documentation *records would* be useful and helpful. The sharing of information could be facilitated by a shared website or the creation of a vascular health portal where providers can enter and identify what's working well in their practices. This website link or portal perhaps could be used to facilitate communication with specialists, other primary care providers and vascular health related networks.
- **An integrated vascular health strategy** and increase efforts to **enhance collaboration between organizations.** Strategies to enhance collaboration: sharing of resources, programs and services; promoting established resources that are working well; and collaborating with other partners when planning vascular health related initiatives including the patient. One possible doable action plan identified that might be helpful for primary care providers is to develop an inventory of prevention resources, tools, programs and services in reference to vascular health for local communities.

Note: Related themes from action plans obtained from detailed participants' actions plans (Appendix G)

Conclusion

As a result of performing an environmental scan involving primary care teams and hosting three well-attended *Think Tanks* (n=73 participants) much detailed information has been gathered and reviewed. Prioritizing needs locally will assist with future planning for improving vascular health. Valuable information was collected from many different health care professionals, administrators and support staff from different rural and urban locations. There was some overlap in the prioritized needs identified among the local areas and this will facilitate future regional planning.

Table 7

Common Needs & **Opportunities** Identified in the Environmental Scan and *Think Tanks*

Communication & Collaboration	Integration
○ **Increase sharing of information between primary care organizations** such as lessons learned and tips for success to initiate, sustain and expand vascular disease prevention services or programs; and how others effectively utilize their EMR (e.g., generate reports and referrals). ○ **Facilitate consistency** such as documentation practices within the EMR. ○ Examine **innovative ways for sharing up-to-date vascular health-related information**, tools, and resources such as a common web site. ○ **Continue to improve connections** with groups interested in vascular health such as the SEO Health Collaborative, Public Health Units and specialty clinics. ○ **Increase awareness and promotion of established vascular disease prevention community services** or programs to reduce duplication of efforts. Further development of partnerships and plans to increase physical activity and safe exercise programs.	○ Develop **one user-friendly integrated system** that incorporates improved access (e.g., **EMR**) and has one valid vascular health-related guideline; one vascular disease risk assessment tool that everyone can agree to use; one clinical flow sheet that captures all relevant health indicators. Determine what vascular health indicators should be tracked consistently. **Regular training for** all staff to increase comfort with the **functions within the EMR** system. Increase access to other clinical tools such as point-of-care blood testing. ○ Develop a person or **patient-centred integrated vascular health service** or program within each primary care organization encouraging self-management, physical activity, a healthy diet and smoking cessation. A vascular health program, service or system should be flexible in order to be applicable to a local setting. Components of a vascular health program, service or system could be modelled after established programs such as the Global Risk Reduction program in the Upper Canada Family Health Team.

Recommended Next Steps

1. **This report will be shared with**:
   a. Primary care providers across the region – including all who participated in the environmental scan and the Primary Care *Think Tanks;*
   b. The Southeastern Ontario (SEO) Health Collaborative including the Primary Care Lead for the SE LHIN and each of the Regional Steering Committees of its represented chronic disease networks;
   c. The SE Primary Health Care Council;
   d. The SE LHIN;
   e. The leads for the Cardiovascular Clinical Services Roadmap of the SE LHIN and
   f. The Project Manager for the Ontario Integrated Vascular Health Strategy.

2. **Local Action Plans** will be followed up by those engaged and self-identified in developing the preliminary action plans made at the Primary Care *Think Tanks*.

3. The **SEO Health Collaborative** will review this report to guide the focus for a collaborative and supportive partnership with primary care in addressing **regional concerns and proposed actions.** The SEO Health Collaborative will lead a process to identify a consolidated **regional action plan** that will guide its ongoing activity for the coming year. The intent would be to carry on the momentum for improving vascular health by translating the identified prioritized needs into actionable plans. This will be initiated in **partnership** with the Primary Care Lead for the SE LHIN, the SE Primary Health Care Council and associated local primary care leads. The Primary Health Care Council will validate actionable plans and collaborate on implementation through its *primary care hub network.*

4. **Consideration** may need to be given to the development of **community vascular health tables** to support primary care locally in relation to proposed actions in vascular health. This consideration would need to be made in alignment with the ongoing work of the SE Primary Health Care Council.

5. The SEO Health Collaborative is well positioned to become the **Regional Vascular Collaborative** as described in the August 2012 release of the Integrated Vascular Health Blueprint for Ontario. This will be discussed with the SE LHIN.

6. The SEO Health Collaborative will build communication with the Ontario Integrated Vascular Strategy Project Manager to ensure that areas outlined in this report that align well with the **provincial strategy** be referred on.

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Appendix A

Family Health Teams (FHT) in Southeastern Ontario

Athens District FHT	Athens	613-924-2623
Bancroft FHT	Bancroft	613-332-6300
Brighton Quinte West FHT	Brighton	613-475-1555
Central Hastings FHT	Madoc	613-473-4134
CPHC Brockville Community FHT & CPHC Gananoque Community FHT	Brockville Gananoque	613-342-3693 613-382-7383
Kingston FHT	Kingston	613-531-4234
Lakelands FHT	Northbrook	613-336-8888
Loyalist FHT	Amherstview	613-507-0213
Maple FHT	Kingston	613-531-5888
North Hastings FHT	Bancroft	613-332-5692
Prescott FHT	Prescott	613-925-5977
Prince Edward FHT	Picton	613-476-2181
Queen's FHT	Kingston	613-533-9300
Sharbot Lake FHT	Sharbot Lake	613-279-2100
Upper Canada FHT	Brockville	613-423-3333

Community Health Centres (CHC) in Southeastern Ontario

Belleville & Quinte West CHC	Belleville	613-962-0000
Country Roads CHC	Portland	613-272-3302
Gateway CHC	Tweed	613-478-1211
Kingston CHC	Kingston	613-542-2949
Rideau CHS	Smiths Falls Merrickville	613-283-1952 613-269-3400

Nurse Practitioner (NP)-Led Clinics in Southeastern Ontario

Belleville NP-Led Clinic	Belleville	613-779-7304
Smiths Falls NP-Led Clinic	Smiths Falls	613-205-1025

Appendix B

Primary Care Questionnaire

1. Is there more than one location?
2. Who will be the main contact to send updates and information about vascular health prevention?
3. Who are the members of your team?
4. What are the functions of the primary care delivery group?
5. What services and programs are in place related to vascular health? (e.g., diabetes education, hypertension management and smoking cessation)
6. What cardiovascular risk assessment tool is used?
7. Is there an anticoagulation service or clinic on-site?
8. What computer system stores your patient information?
9. What links does your organization have with the community in relation to community agencies and rehabilitation?
10. Do you refer patients to the Stroke Prevention Clinic?
11. Are motivational interviewing techniques incorporated into your practices in relation to self-management?
12. Discuss one issue in relation to vascular health?
13. What educational opportunities would your organization be interested in?

Appendix C

Environmental Scan of Southeastern Ontario: FHTs, CHCs and NP-Led Clinics

	General Functions/ Services	Vascular Health Related Programs	CVD Risk Assess	Anticoagulation For Atrial Fibrillation	Depression Screen	Electronic Record	Community Rehab Links	Motivational Interviewing
1	Primary Health Care Educating medical students & physicians Foot Care program	Diabetes program SW coordinates smoking cessation Ottawa model program		Anticoagulation Program led by pharmacist in collaboration with other members of team Point of Care Testing Medical Directives		Oscar Clerks have Directives to update blood work Patients have access to part of electronic record Ability to abstract, trend, run reports	YMCA Cardiac Rehab	Yes
2	Primary Health Care Chronic Disease Prevention Health Promotion Well Woman Program Foot Care program	Hypertension program managed by 2 RNs Would like to maintain and expand program. More resources needed. Diabetes program Smoking Cessation- coordinated by 2 RNs Plans to attend TEACH program	Framingham	Anticoagulation program coordinated by RNs Point of Care Testing INR result obtained Dose adjusted Teaching provided		xwave	YMCA Refer to cardiac rehab Refer to day Rehab	Yes Would like to expand Stanford Self-Management Model
3	Primary Health Care After hours telephone advice General Family Practice Foot Care program .	Global Risk Reduction Program Diabetes program coordinated by RN Cardiovascular RNs Hypertension program coordinated by 2 RNs. Smoking cessation led by 1 RN	Framingham Would like to develop a global vascular assess tool and would share this tool	Anticoagulation program coordinated by 2 RNs Point of Care Testing Medical Directives		Nightingale .	Primary Health and Wellness Clinic Cardiac Rehab	
4	Primary Health Care Services a very rural area High substance abuse Lower socio-economic status	Starting a blood pressure program coordinated by a RN Provided info from CHEP, Heart & Stroke Hypertension Management Program Provided info about BP program at CHCs NP is undergoing CDE training and will assist both sites with diabetes education Napanee Diabetes Ed visit 1/mos for teaching All NPs are going to Smoking cessation course in Ottawa in fall 2011 Would like more C-CHANGE info	Framingham	No program Purchased the Point of Care equipment recently	Utilize depression screening tool. Not sure what tool	Use paper xwave coming in July 2011	No community services Diner club for seniors Local school has a a gym for the community to exercise No walking due to highway through the town Tennis Court & Lions Hall Low participation in rec and physical activities	Need to follow-up
5	Primary Health Care Chronic Disease Prevention Foot Care Asthma Clinic Wound Management Clinic	Diabetes program run by RN CHF Clinic Cardiac Rehab-PEACH Blood Pressure Monitoring Seemed interested in vascular prevention Would like to find out more about a Blood Pressure program RN & NP coordinate smoking cessation	Framingham	Had piloted an anticoagulation program. Ran out of funding Still have machine	Starting a QI project for chronic pain & depression use PHQ-9 as screening tool	xwave	Aquatic Centre Healthy heart rehab course RNs go and present re healthy lifestyle	Yes

	General Functions/ Services	Vascular Health Related Programs	CVD Risk Assess	Anticoagulation For Atrial Fibrillation	Depression Screen	Electronic Record	Community Rehab Links	Motivational Interviewing
6	Primary Health Care Mental Health Nutrition counseling Foot Care program COPD program starting soon	No programs HMI presentation took place Interested in starting Family Dr. will be lead RN considered CD prevention lead NP coordinates Diabetes services Refer out for most services No one trained for smoking cessation Refer to Public Health		No program		Practice Solutions	Quick note that they don't really have community rec services	Short Webinar
7	Services very rural + large Geographical territory Nutrition counselling Women's Health	CDPM program: Blood pressure, smoking cessation coordinated by RN. 2 RNs coordinate Diabetes Clinic Diabetes Education run by RN Obesity Education Smoking Cessation- Thinking about sending others and will contact us	Framingham	No on-site program	Use PHQ-9	Wenoka	Link with 1 Fitness Gym- Physicians fill out Rx Health Unit has a walking program in local school Swimming program at hotel Physician request for fitness program at an "under-used" site	Yes through smoking cessation Would like to learn more and how to change behaviour
8	"Interim" Clinic with part-time physicians transitioned to FHT Resident training program Choose to Loose	Heart Healthy Class run by dietitian Blood pressure, smoking cessation, Diabetes ed coordinated by RN		RN coordinates program	Interested in 3-question depression screen		Planning on having Cardiac Rehab soon	Would like to develop more
9	Primary Health Care Services a very rural community	RN involved with CVD interests Diabetes Education run by RN and Dietitian Have people trained in smoking cessation		RN runs program	Screen for depression no identified tool		Have community exercise A senior exercise program with 63 people in the local gym involving their health promoter	Yes
10	Primary Health Care Services a very rural area	All staff participate in CVD prevention. No programs or specific lead for a particular area No CVD programs/service Have NP trained in smoking cessation Diabetes education	Framingham	No Anticoagulation clinic Good relationship with on site lab	PHQ-9	Practice Solutions	Walking program Refer to CPCHC for day program and exercise	
11	Primary Health Care Urban setting Chronic Disease Manage Memory Clinic partnered with the Alzheimer's Society Falls prevention clinic run by the OT	Would like to start a Blood Pressure program Have 3 staff in training for Diabetes education RN trained through Ottawa in smoking cessation Would like to send more Partner with PHU for smoking cessation of high risk pregnancies Enrolling in the STOP study		No anticoagulation clinic Have a lab on site Would like Medical Directives and to start an anti-coagulation program	Unsure	Oscar	Have partnered with local recreation centre and offer a walking program run by OT Find there are too many services and don't know where to turn	Would like training
12	Family Medicine Internist sees patients 1am/wk	Operate a "Living Well" program coordinated by Dietitian-& RN provide nutrition counseling and exercise on site RN coordinates Hypertension program and the Diabetes education program. Smoking cessation by RN partnered with CMAH and participates in STOP study	Framingham	Lab on site No program	PHQ-9 Social Worker has excellent electronic program with built-in alerts	xwave Able to abstract and run reports Populate referrals Referral templates	Cardiac Rehab Linked with physiotherapy Centre Community Rec Centre	Have an interest

	General Functions/ Services	Vascular Health Related Programs	CVD Risk Assess	Anticoagulation for Atrial Fibrillation	Depression Screen	Electronic Record	Community Rehab Links	Motivational Interviewing
13	Primary Health Care in an urban setting Chronic disease prevention & management services Sleep therapy Loving Food & Feeling Fine Stress Management 101 Foot Care Getting the Fats Straight (cholesterol) Feeling Calmer: Managing Anxiety Feeling Better: Managing Depression Arthritis Clinic Chronic Pain Clinic	Healthy Living Clinic led by RNs-primary prevention starting at age 40 then every 5 years: Patients are screened, goals discussed On track-Diabetes Intensive Carec led by NP and dietitian	Framingham	Point of Care testing Medical Directives for INR difficult to control Stable INRs: monthly blood work	BECK inventory HADS	Practice Solutions	Cardiac Rehab YMCA-have partnered re chronic pain program	Have an interest
14	Primary Health Care Urban Setting Lower socio-economic status Health promotion Many programs: Living Well with Health Conditions Feeding your family Cooking for One Craving Change REACH-Exercise for CD TAP Aboriginal Health Fear of Falling Managing Fatigue Managing Depression Managing Powerful Emotions Managing Pain before it Manages You Foot care	Just starting Plans in place to target high risk people such as someone who hasn't had BP taken via EMR with help from Data Coordinator Diabetes Education Living Well with Diabetes Dental Health program Smoking Cessation led by RN who covers Diabetes	None	No program Interested in info about Point of Care testing for INR and equip costs	Would like to	Purkinje--all CHCs Changing vendor		Yes
15	Grass roots organization started in 1991 to provide Primary Health Care and link with community partners Services a very rural area. Lower socio-economic status Extended hrs/on-call Programs: Stretching Your Food Dollars Early Years Program Community Resource Prgm Nutrition Counseling Crisis/Emotional Support Aging @ Home Assessments run by RN System Navigator-run by RN Dental Health Unit located in basement Community Gardening Pole Walking	Heart Healthy Group Now individual counseling Worried about sustaining Program Diabetes Education Smoking Cessation	Framingham	No Program but have A Coaguchek point of care Machine. Worried about covering the costs of the strips	Not sure if they have a depression tool	Purkinje--not happy with Purkinje	System Navigator assists with referrals Use Communicare and CCAC Aware of day rehab program Not many recreation activities Pole walking coming soon	Yes Most of the staff have been trained
16	Primary Health Care Community Programs & Services Health promotion and CDPM Many programs: Senior's Wrap Around-keep seniors in home longer Provide transportation for clients Partners with Arthritis Society-OT comes on-site Day Away Program-Caregiver Support Get with It-Ottawa program-at local high school facilitated by Community Health Worker In the winter NP on-site at local high school-2 days/week-health promotion, -sexual health Mindfulness Program & Meditation Stay Fit Groups Healthy Wt Programs 2x mos Seniors Fit exercise program Community Kitchen Good Food Box Depression Support group	RN coordinates CDPM RN-coordinates heart healthy program CD prevention counseling Diabetes Support monthly group meetings RN is diabetes educator Partners with Public Health Staff utilize CHEP Info including the action plans for BP manage RN/dietitian manage lifestyle counseling Living Well with CD Choices & Changes-NP trains others Oral Hygiene-have Dental hygienist on-site	Framingham	Point of Care INR testing Staff have Medical Directives	Researching tool-(e.g., PHQ-9) Would like 3-question tool	Purkinge-Hasn't switched to Nightingale yet	Refer to tertiary centre for rehab referrals but distance can be a barrier Limited community recreation	Yes Most trained in self-management techniques Not everyone embraced MI

	General Functions / Services	Vascular Health Related Programs	CVD Risk Assess	Anticoagulation for Atrial Fibrillation	Depression Screen	Electronic Record	Community Rehab Links	Motivational Interviewing
17	Provide increase access to lower socio-economic status Let's Get Healthy not operating Urban pole walking led by HP Anxiety, Anger & Depression program led by SW Living well with pain program program led by SW	CDPM RN RN coordinates diabetes education No blood pressure clinic RN is interest in vascular dse prevention services Living well with CD Condition Low attendance to get healthy program involving exercise. RN would like to spend time with Kinesiologist re exercise program training Would like to have more CDPM programs Most trained in Choices & Changes	Framingham	Point of Care INR testing Staff have Medical Directives Coaguchek	Mainly PHQ-9 BECK inventory	Purkinge-Hasn't switched to Nightingale yet	Provided directories YMCA HPs know about resources Refer to Day Rehab	Yes most trained would like to learn more about MI
18	Primary Health Care, illness prevention, Health Promotion, health education, community development Service a large area with low socio-economic status and high mental health illness Good Food Box Guys Get Cooking Diner's Club Good Food for Healthy Babies Craving Change Better Health Project Part of the Healthy Community Staying Well Get With It walking program Community Gardening	Planning for a Cardiovascular Health Group Living Well with Chronic Disease and Living Well with Diabetes modified to meet needs of local community Diabetes Services Diabetes Education 2 Sessions last year on blood pressure management open to general public "Mind Your Blood Pressure" Nutrition Counselling Would like to expand the scope of nursing practice Dental Health		Point of Care INR testing Staff have Medical Directives	PHQ-9	Purkinge-Change in 2 years .	Free Walking Trails Community Arena Not many community recreation services	Yes
19	Family Health Care services Difficulty accessing Primary care provider Take walk-ins Extended hours 5days/week No on-call	Hypertension program starting soon with RN leading this initiative RN attended the Hypertension Collaborative Diabetes program led by RN and pharmacist RN attended Ottawa and TEACH sessions and is the lead		INR clinic starting Coaguchek Equipment Pharmacist is the lead	PHQ-9	Practice Solutions	Aware of Community services Trying to establish links with hospital to know more about their patient's hospital experience	Yes

Note: Environmental Scan conducted June 2010-September 2012. More details can be obtained from murphyc2@kgh.kari.net.
Information collected may have changed since initiating the Environmental Scan.

Appendix D

Planning Committee for Primary Care Think Tanks

Marg Alden	Executive Director, Maple FHT
Mike Bell	Director Primary Health Care, Rideau CHS
Sherri Fournier-Hudson	Executive Director, Upper Canada FHT
Dr. Jonathan Kerr	MD, Primary Care Lead SE LHIN
Dr. Hugh Langley	MD, Primary Care Lead South East Diabetes Coordination Centre & Regional Cancer Program
Christanne Lewis	Coordinator, District Stroke Centre
Cally Martin	Regional Director, Stroke Network SEO
Colleen McMahon	RN, CDE
Colleen Murphy	Regional Stroke Best Practice Coordinator, Stroke Network SEO
Stafford Murphy	Manager, Napanee CHC
Lynne Poff	Executive Director, North Hastings FHT
Sue Saulnier	Regional Education Coordinator, Stroke Network SEO
Dr. Adam Steacie	MD, Upper Canada FHT
Ron Shore	Director, Kingston CHC
Mary Woodman	NP, Prince Edward FHT

Note: In addition Maureen McIntyre, Regional Director of the Regional Diabetes Centre for SE LHIN and Julie Gordon, Regional Director of the Ontario Renal Network provided helpful feedback and support during the Primary Care *Think Tanks*

Appendix E

Invitation and Agenda Template for *Think Tanks*

Dear Colleagues,

We would like to invite you to participate in the "**Southeastern Ontario Primary Care Think Tank on Vascular Health: Making it Easier to Put into Practice"**

This 3-hour evening "Think Tank" has been designed to give primary care physicians, nurse practitioners, administrative leads and health professionals the opportunity to begin discussions about enabling the prevention of vascular disease: "**making it easier to put into practice**".

By the end of the "Think Tank", participants will have had the opportunity to:

- Discover what tools, resources and programs are currently in place and how can they be shared: determine what is most important
- Identify other tools and resources that are needed
- Determine collaboratively what is required to support vascular health in primary care organizations
- Define the next 3 steps for action

Primary care providers/organizations/ teams from across Southeastern Ontario will come together to begin facilitated discussions to collaboratively meet the objectives above.

In preparation for this meeting, a list of vascular-related programs, services or systems in Southeastern Ontario has been developed. This list including local environmental scan results and the "blueprint" for an integrated vascular strategy in Ontario will be shared with participants.

The "Think Tank" agenda is attached.
The planning committee looks forward to what is expected to be the start of enhanced collaboration for vascular health in our region.

Thank-you,

Planning Committee:

Dr. Adam Steacie	Dr. Hugh Langley	Mike Bell
Cally Martin	Dr. Jonathan Kerr	Ron Shore
Christanne Lewis	Lynne Poff	Sue Saulnier
Colleen McMahon	Marg Alden	Sherri Fournier-Hudson
Colleen Murphy	Mary Woodman	Stafford Murphy

Primary Care Think Tank on Vascular Health
Dinner Provided
Date: June 5, 2012 from 5:00pm- 8:00pm

Time	Topic	Presenters
5:00pm-5:25pm	**Dinner and Introduction**	
5:25pm-5:35pm	**Setting the Stage: Environmental Scan Results**	
5:35pm-5:45pm	**Ontario Integrated Vascular Strategy "Blueprint"**	
5:45pm-7:00pm	**Focus Group Discussion** **Questions:** **1. What does a robust vascular health program look like?** **2. What's needed to make it happen?** **a. What tools, resources or programs are already in place and working?** **b. What tools, resources or programs are needed?** **Focus groups report back on what's needed** **Organize input into common needs**	
7:00pm-7:10pm 7:10pm-7:50pm 7:50pm-8:00pm 8:00pm	**What matters the most? Rank top 3 needs** **Action Plan for top 3 needs** **1. What are feasible next steps/actions?** **2. How will we tell if the action plans are successful?** **Focus groups report back on action plan** **Wrap Up** **Adjournment**	

Appendix F

Needed Tools, Resources or Programs

HPE Primary Care Think Tank

CHC	FHT	SOLO/FHO	Other & NP
1. EMR (22 votes)			

• EMR tools (e.g., flow sheets that populate the record)
• Integrated EMR – flow between different partners (e.g., hospitals)
• Electronic record – access to information
• Common EMR search capability
• Shared tools
  ○ Flow sheets
  ○ Screening tools
	• Access to chart by all
	• EMR– need to access reports
	• EMR more user friendly for identification
	• Communication access of relevant aspects of the chart for outside providers
	• Communication and sharing of information
	• Reliable, effective, user-friendly EMR
	• Specific templates in EMR with prompts of test dates, risk factors, etc.
	• Opening up EMR to all "circle of care"
	• Guidelines embedded in EMR
		• Chart access accessible to all
		• Common shared patient medical record
			• Direct feed from hospital, lab, provincial programs – patient portal
			• Integrated health information system

2. Primary Care Engagement (Tied with System Navigation) (13 Votes)			
• Process to engage primary care providers not in CHC/FHT			
3. System Navigation (Tied with Primary Care Engagement) (13 Votes)			

• System navigation	• One referral
	• The process for the vascular network should be a lot quicker than sending a referral
	• Easier access to many other health professionals (e.g., through groups, geography, video/telephone chats)
	• Dedicated resources (person) to coordinate vascular programs
	  ○ Avoid duplication of programs
	  ○ Tract outcomes
	• Subject matter "Champions" "Experts"
	• Ease of access
	• Streamline referral process
		• System navigator to help utilize programs and foster collaboration	

HPE: Primary Care Think (Needs)

CHC	FHT	SOLO/FHO	Other & NP
4. Common Evidence-based Guidelines and Standardized Screening (12 Votes)			

• Integrated guidelines
  ○ What is needed?
  ○ Common guidelines
• Increased screening for clients at risk- early identification, early intervention
	• Collaboration of
	• guidelines…confusing for practitioners and clients
		• Using evidence-based guidelines (C-CHANGE)	

5. Data Mining (12 Votes)			
	• EMR should be able to pre-populate with hypertension guidelines for diabetes and non-diabetes • Should be easier to pull information out of the EMR through searches, so if history show high risk-should be easy to follow • To ensure patients have milestone weights, blood pressure readings, cholesterol levels (evidence-based) • Patient history placed in EMR should pre-populate exactly what the patient needs		• EMR-Pulling data and statistics from ER for programs (time and staff)
6. Collaboration and Community Partnerships (11 votes)			
• Coordination of cardiac services including rehab • Sharing of programs within other CHC/FHT/etc. • Tools to facilitate easier inter-agency cooperation • Access to programs	• Elimination of silos of care – better feedback from community agencies • Cooperation between FHTs, etc. to offer variety of programs • Involve Public Health • Collaboration between organizations and agencies • Integrating with Public Health and other community resources	• Community level collaboration on programs (FHO, CHC, NPLC, etc.) • Centralized: ○ Smoking cessation clinic	• Collaborative CHC models sharing services and resources • Partnerships with community based programs • Linking with community resources / partnerships • Prevent duplication
7. Measurement, Quality, Evidence-based Indicators (11 votes)			
• Common indicators to measure success for current strategies • Common approach to data collection and indicators	• Data/quality funded person to evaluate measures	• Ability to extract data from EMR's quickly to monitor lead and lag measures to reach specific goals (i.e., number of patients with BP on target)	• Standardized metrics and indicators (to measure impact)

HPE Primary Care Think Tank (Needs)

CHC	FHT	SOLO/FHO	Other & NP
8. Patient Centred (10 votes)			
• Combining programs to meet needs, (e.g., diabetes and hypertension)	• Group sessions • Internet – Twitter • Patients should be made aware that they are ultimately responsible for their health care • People have diseases; diseases don't have people	• Self-management approach (for long term sustainability results) • Patient engagement	• Patient based/focused programs
9. Leadership Resources (9 votes)			

	• Resources needed -TIME:
	  ○ To learn about vascular health
	  ○ To collaborate on project
	  ○ To develop tools
	  ○ To do the surveillance on patients
	  ○ To do the analysis
	• Resources needed:
	  ○ people with awareness, knowledge & interest
	  ○ people with positive attitude for change
	  ○ Motivation		

10. Public Education (6 votes)			
• Posters on risk factors/prevention	• Education to further knowledge in prevention, promotion • Some patients have basic health literacy (e.g., what "vascular" means) • Increase use of social media for education	• Focus on healthy lifestyles for individuals, families and communities	
11. Interprofessional Collaboration within Team (6 votes)			
• Multi-professional involvement (team)		• Interdisciplinary team • Centralized group • Dietitian counseling	• Shared multidisciplinary resources (to reduce redundancy)
12. Public Policy (4 votes)			

• Coordinated approach to vascular disease prevention with emphasis on youth and involving schools, primary care and public health
• More resources for health promotion
	• Remove the financial penalty if a patient misdiagnosis myocardial infarction/stroke and calls 911
	• Healthy public policy – foods, active living, etc.
	• Evidence-based health promotion strategies (e.g., Ottawa Heart Institute smoking cessation model)
			• Social policy to help health
			• Long term plan to address next generation, it is too late for us – related to:
			  ○ Obesity
			  ○ Inactivity
			  ○ Lousy food
			  ○ Smoking
			  ○ Alcohol

LLG Primary Care Think Tank (Needs)

CHC	FHT
1. Public Policy (Public Policy, Advocacy); Funding & Resources (33 Votes)	

• Access to collaborative primary care for everyone (transportation)
• Transportation – rural areas – FOR ALL
• Policies that address the Social Determinants of Health – safe place to live for example
• Nursing and primary care for frail seniors in their homes – monitor nutrition, blood pressure, blood work
• Ambulatory primary care for seniors
• Seniors – get together
  ○ Local – community centre
  ○ Walking together
  ○ Volunteer work
• Gardening with local schools
  FUNDED – gardening
	• More resources (people) to meet increased needs once identified
	• Drug coverage for all cardiovascular and diabetes medications
	  ○ How to know which ones cost the least
	• Worker-friendly programs
	  ○ Hours
	  ○ Schedules
	• Working poor
	  ○ Medications
	  ○ Where to go for help with costs
	• Resources for mental health – a barrier to care
	• Physiotherapy and coverage
	• Community-based (accessible) recreation
	• Funding for exercise
	• Comprehensive basic dental care

2. Healthy Lifestyle (e.g., Nutrition & Activity)	**Community/Primary Care/Specialty Clinics (18 votes)**

• After school programs
• Children/Youth
  ○ Physical Activity
  ○ Nutrition
• Policies that limit portion sizes – (e.g., bottled drinks)
• Teenagers – exercise programs
  ○ In each small community
  ○ Funding for equipment or snacks
  ○ Health topics, ie, smoking, drugs
  ○ Volunteer work – clean up, community
• Nutrition and activity programs in all schools
• As "usual care" – activity/exercise
  ○ Primary Care Providers provide prescriptions and follow-up – parents/children
• Coordinated Community Vascular Health Centres:
  ○ Exercise
  ○ Healthy food/nutrition
  ○ Smoking cessation
  ○ Preventive medications for diabetes, CHF , Atrial Fib, renal risk, acute coronary syndrome
• Accessible activity and organized sport for youth
  ○ Activity/sport/nutrition for youth
  ○ Food/nutrition
  ○ Activity best practice primary care provider prescription for families and youth
• Coordinated Primary Care & Community Leaders/Business – "Health Programs for our Kids"
	• Exercise/trainer availability
	• School-based programs
	• Family-centred initiatives
	• Nurse Educator who coordinates
	  ○ Physical activity
	  ○ Lifestyle change
	  ○ Goals of treatment
	• Community—based program (e.g., kinesiologist and staff)
	  ○ Not just for people who have had events – primary prevention care focus
	  ○ Health care-based monitoring
	• Motivation and Education
	• Weight management clinic

LLG Primary Care Think Tank (Needs)

CHC	FHT
3. EMR / EHR (14 Votes)	

• EMR that is intuitive and alerts based on harmonized guidelines
• Universal screening tools (integrated into EMR)
• One medical chart accessible across the system
• Communication between providers (EMR)
	• Consistent assessment and documentation
	• Integrated EMR (gather data, reports, consistent way to communicate)
	• EMR-Good flow
	• EMR
	  ○ Reports
	  ○ Evaluate Progress
	  ○ EMR guideline integration
	• EMR photo capability
	• Ability to extract information from EMR
	• Unified EMR
	  ○ Hospital/lab/x-ray/primary care team/speciality care/CCAC
	  ○ Discharge, diagnostic imaging
	  ○ Proven tools
	  ○ Electronic record goes with patient
	• EMR-patient tools
	  ○ Link to social media (e.g., APPs)
	• EMR to identify individuals for screening/monitoring
	• EMR reports
	• Time
	• Flow Sheets

4. Communication and Coordinator/ System Navigator (12 Votes)	

• Better communication
  ○ Electronic and otherwise between various providers – Primary Care /CCAC/Long term care /hospital/specialist
• Coordination between community health resources
• Awareness of who does what
  ○ No duplication across system
• When something works – how to spread it
• OTN use more
	• System navigation for patients
	• Case Managers
	  ○ Navigators with links to community resources to assist patient with system/resources follow-up

5. Tools for Providers (8 votes)	

• More standardized
  ○ Patient education
  ○ Patient identification (screening)
• Timely access to diagnostic tools (imaging)
• Way of assessing impact/evaluation
	• Guidelines geared towards multidisciplinary teams
	• Consistency:
	  ○ Assessment
	  ○ Process for identification and intervention of at risk patients
	• Simplified guidelines incorporated into unified single EMR for:
	  ○ Cardiovascular disease /vascular health
	  ○ Diabetes
	  ○ Chronic diseases
	  ○ Cancer screening
	• Medical Directives:
	  ○ Diabetes
	  ○ Lab requisitions
	• More Medical Directives
	• Tools for outcome measures
	• Implementation tools that have been validated and we know work
	• Ongoing education support for programs
	• Buy-in by all members of the FHT

KFL&A Primary Care Think Tank (Needs)

CHC	FHT	Other
1. Quality Improvement/Data & EMR (EHR)/Infrastructure & Methodology (25 votes)		
• 1 or 2 measures to assess process quality • Expert/ patient/client working with quality improvement • Reminders for providers to screen, ask and help • Easy to use EMR	• Working knowledge of EMR • One EMR only • EMR data and feedback • All agencies linked electronically • Data mining • Common interfaces	• EMR and associated training and support • Universal Health record accessible by any provider and patient • Infrastructure for quality improvement related to vascular health Plan/Study/Do/Act
2. Integrated Vascular Health Programming & Community Partnerships (21 votes)		

• Access to healthy food
• Transportation
• Nicotine Replacement Therapy/medications to assist with smoking cessation
• Services from "cradle to grave"
	• Designated team members who work with clients on health behaviour changes and self- management programs
	• Adequate staffing to accommodate all
	• Staff to run adolescent health program at FHT
	• Better partnerships for food security
	• Partnership with community organizations for life skills training (e.g., cooking classes)
	• Partnerships with exercise facilities and/or kinesiologists to help patients develop exercise programs
	• Free community activities to promote exercise and health for all ages
	• Adequate resources-health promotion materials
	• Partnership with schools – health promotion
	• Integration with Public Health programs
	• Ottawa Heart Institute-like validated tool for health living (e.g., exercise)
		• Skills coordination resources to support joint planning and program evaluation
		• Family-based programs
		  ○ Nutrition
		  ○ Activity
		• Virtual team approaches where no primary care team is in place-share – partner
		• Collaborative entities
		• Programs close to peoples' homes
		• Sustained partnership/joint initiatives for vascular health: Primary care organizations, schools, public health, chronic disease networks
		• Knowledge of the system by health care provider and primary care organization

3. Clinical Tools/EMR (Risk Factor Screening, Integrated Clinical Guidelines, Assessment tools (18 Votes)		

• Access to point-of-care testing
• Reminders for providers to: screen, ask, help
	• Blood pressure checked and recorded in EMR every 3 years
	  ○ Screening for hypertension
	  ○ Measuring whether we are doing this
	• Ways to collect data from EMR to identify those with risk factors
	• Registry of patients with risk factors
	• System identification of patients at risk
	• Tools integrated in EMR
	  ○ Framingham (consensus-do we use Framingham or Reynolds Risk Score
	  ○ Whether patient should be on ASA
		• EMR: Health Information Network (Personal Health Medical Record)

KFL&A Primary Care Think Tanks (Needs)

CHC	FHT	Other
4. Family/Patient Ownership & Self-Management/Motivational Interviewing (13 Votes)		
• Engage families • Exercise, healthy living programs • Motivational interviewing	• Every patient has at every visit-ask what they are doing to improve their health and what they would be willing to try • Patient buy-in compliance • Ways to keep patients interested & motivated • More video programs for office and waiting rooms • Patient education-program/identified target group/goals • More self-management courses • Model-embraced by all involve including patients • Parent education on childhood eating, exercise, obesity • Family exercise activities • The exercise component-trained resource facility • Patient education program: identify target group and set goals • Consistent communication with patients at risk	• Personal Health Record • EHR that is OWNED by the person
5. Provincial Incentives/Social & Public Policy/Education (13 Votes)		
• How to combat cigarettes bought on the reserve • Grassroots, in the community, on the street: blood pressure monitoring	• Consistent guidelines • Public school programs to teach cooking and activity • Consistent messages-provincial, regional, local and team-wide • Robust programs (e.g., integrated with community resources) • Tax incentives of relief for access to gyms, YMCA, etc. • Ongoing free smoking cessation nicotine replacement • Integration with local gyms tied to personalized training programs • Sell the vision • Connections/partnership • Less duplication	• Provincial initiative to really deal with: o Obesity o Smoking o Inactivity o Bad diet o Alcohol Not only run by Health Unit but with Social services, etc. Need a generational change, longer than 1 election cycle • Appropriate polices • Make McDonald's, etc. pay additional taxes to account for disease caused by their "food" • Unified message/strategy for our region
6. Interprofessional Care & Education/Work to Full Scope of Practice (7 Votes)		
• Working at top of scope of practice-education to support • Lead education programs o Physicians, NP, RN,SW, Dietitian • Providers working to full scope • Trained multidisciplinary health professionals	• Interdisciplinary teams • Pharmacist (medication reconciliation) • Integrated interprofessional approach for "specialty" clinic (hypertension, diabetes)	• Equal access and provision to services across our region

KFL&A Primary Care Think Tanks (Needs)

CHC	FHT	Other
7. Resources Used Differently (6 votes)		
	• Sharing of resources • More administration support to contact target populations initially • Expand focus of data entry people	
8. Access to Primary Care (6 Votes)		
	• Every person in Ontario has a primary care provider who asks if they smoke, checks their blood pressure and manages their diabetes	
9. Resources and Funding Models (5 Votes)		
• Funding source for transportation to programs • Subsidized funding for access to YMCA programs • More funding for those out of work on Ontario Disability Support Program for diet support for all participants and not just those with disease	• Money • Different funding models or more money • Resources • Transportation resources especially in rural areas • More RNs/RPNs • More nursing staff to do the education	• Money • Funding
10. Local Control for Decision-Making (5 votes)		
• Indigenous health programs • Community-based health care	• Give FHT and CHC more authority on how to spend Ministry money (e.g., which staff to hire, programs to run)	• Local control-Facilitative process
11. System Navigation (1 vote)		
• Case managers for hard to serve	• System navigation	

Note: **HPE:** Hastings & Prince Edward Counties **LLG:** Lanark, Leeds & Grenville Counties
KFL&A: Kingston, Frontenac, Lennox & Addington

Note: **CHC:** Community Health Centre **FHT**: Family Health Team **NP**: Nurse Practitioner-Led Clinic **FHO**: Family Health Organization

Note: Information taken directly from participants' written statements

Appendix G

3 Action Plans for 3 Local Areas

HPE Action Plan: EMR

	How	Enablers, Barriers & Sustainability Needs	Who / Timeline	How To Measure Success
Local Plan	• Local hospital(s) identify 'primary care provider' for hospital visits/tests, etc.	Barriers: Different EMR	Hospital, primary care, IT coming together	Access
	• Electronic data transfer to and from: Radiology/diagnostics, hospitals, specialists	"Billing system of MOH" not up-to-date with scope of practice		Reduce duplication Patient satisfaction
	• Shared health information between organizations • Shared patient profile between organizations • Shared standard flow sheets/forms/tools	Enabler: System integration		Time to receive reports
Regional Plan	• As above			
Provincial Plan	• Put it into action			
	• Implement and fund			
	• Reduce barriers for NP, Midwives to request referrals, diagnostics, etc.			

HPE Action Plan: Primary Care Engagement

	How	Enablers, Barriers & Sustainability Needs	Who / Timeline	How To Measure Success
Local Plan	• Health Care Integration Committee – move meeting time to 3-5pm or 4-6pm to facilitate MDs attending	Barriers: Time (to attend) Silos of care	Dr. Jonathan Kerr	
	• Surveys to primary care providers – obtain feedback/ideas	Threatened		
	• Find ways to collaborate between groups (after hours, etc.)	New / change		
	• Primary care lead visiting/contacting primary care providers			
	• Re-brand CHCs as community program provider			
Regional Plan	• Primary Health Care Council of Southeastern Ontario			
	• Primary Care Lead collaborating/communicating with: ○ Vascular / Stroke ○ Southeastern Ontario Health Collaborative ○ Diabetes ○ CCO			
Provincial Plan	• Primary Care Lead Committee (Provincial)			
	• LHIN/Ministry priorities - access			

HPE Action Plan: System Navigation

	How	Enablers, Barriers & Sustainability Needs	Who / Timeline	How To Measure Success
Local Plan	• Internal referrals – streamline internal referral process			
	• External referrals – right person			
	• Mental Health – need for Health Promoter / Vascular Prevention in this high need group and Vascular Health Programs/Strategies – accommodate mental health	Enabler: Navigation in health promotion and in acute episodes		
	• Match need of patients to resources given			
Regional Plan	• Integrate Stroke Prevention Clinics with Diabetes programs, Vascular Health			
	• Health Providers in hospital – facilitate discharge (local hospitals)			
	• Resources – e.g., who is doing what? (like KGH specialist list)			
	• Wait time – for referrals			
Provincial Plan	• Funding for "Navigators" – hospitals/FHTs/CHCs/Clinics			

LLG Action Plan: Public Policy

	How	Enablers, Barriers & Sustainability Needs	Who / Timeline	How To Measure Success
Local Plan	• Promote better utilization of existing resources (public health) through communication and collaboration – both ways: Primary Care <-> Public Health <-> Primary Care. Examples: ○ Primary Care doesn't always know what's out there and Public Health often has a lot going on already ○ Students	"Big policy changes too difficult" "We can do smaller things locally"		
	• Breaking down silos			
	• Inventory of services and programs for professionals – link to EMR			
Regional Plan				
Provincial Plan				

LLG Action Plan: Healthy Lifestyle

	How	Enablers, Barriers & Sustainability Needs	Who/ Timeline	How To Measure Success
Local Plan	• Lifestyle change programs with defined goals and measureable outcomes	Problem with sustainability with only volunteers, therefore need funding		
	• Self-management groups/plans			
	• Recognizing barriers created by rural settings – it's different for rural areas and requires different types of programming			
	• Coordination of different types of programming within a community (e.g., nutrition, activity, etc.), "Not in a vacuum but between groups"			
Regional Plan	• "Chronic Disease Prevention" – implementation of Provincial Plan	Enabler: Buy-in by local school boards		
Provincial Plan	• Focus on programming at all levels throughout the province in order to plan for funding and sustainability			
	• Moving away from physician-centred model to patient-centred model			Measure costs in MD visits/imaging versus allied health (e.g., PT) Measure waiting lists for specialist Look at vital sign results (blood pressure)

LLG Action Plan: EMR

	How	Enablers, Barriers & Sustainability Needs	Who/ Timeline	How To Measure Success
Local Plan	• Policies for consistent documentation (input of information)	Barrier: Different practice patterns	All health providers	# extraction errors when pulling data reports
	• Universal screening tools accessible through EMR	Enablers: Agreeing to guidelines		
	• Increased ability to gather meaningful data	Software and qualified human resources		
Regional Plan	• Integrate EMR with other agencies and hospitals	Barrier: Privacy issues		EHR
Provincial Plan	• Sharing/knowledge transfer between providers, agencies	Barrier: Software licensing	2015 (EHR)	

KFL&A Action Plan: Quality Improvement /Data/Infrastructure Methodology

	How	Enablers, Barriers & Sustainability Needs	Who / Time	How To Measure Success
Local Plan	• Develop infrastructure for local reporting –including education/training	Barriers:		
	• Good data in; in the right place	Multiple EMRs		
	•	Multiple providers		
	•	Lack of standardized orientation to uses of EMR EMR initiation		
	•	Enabler: Enforcing input		
Regional Plan	• LHIN collects and shares Q1 data with Primary Care FHT/CHCs, Public Health	Barrier:		
	• Sharing of existing EMR templates/flow sheets, etc. (may be a local plan)	Multiple EMRs		
Provincial Plan	• Built in reporting tools in new releases of EMR	E-Health Ontario		
	• Common Quality Improvement methodology (this should be a regional plan too)	Interoperability of EMR		
	• Common indicators/benchmarks	Risk of EMR not provincially funded – no control over specs		
		Barrier:		
		Province not funding data input/analysis		

KFL&A Action Plan: Integrated Vascular Health Programming & Community Partnership

	How	Enablers, Barriers & Sustainability Needs	Who / Time	How To Measure Success
Local Plan	• Identify local resources then use (e.g., , CHC Diabetes Education Centre) – increase exposure, referrals from all clinics			
	• Group clients with similar (vascular) health problems then seek advice			
	• Clarify roles of providers regarding vascular management (e.g., self -management done by one provider)			
	• Define roles of team members in a vascular strategy			
	• Coordinate services – Public Health, Primary Care, etc.			
	• Prevention programs – increase local access; meet with partners ○ Activity ○ Smoking ○ Nutrition			
	• Reduce barriers to programs			
	• Ask patients what is needed? ○ "What will help you to change your lifestyle to improve vascular health"			
Regional Plan				
Provincial Plan				

KFL&A Action Plan: Clinical Tools/EMR/Integrated Guidelines

	How	Enablers, Barriers & Sustainability Needs	Who / Time	How To Measure Success
Local Plan	• Educate all staff as to how to capture relevant information so it can be mined, e.g., weight, BP			
	• EMR should include tools to evaluate cardiovascular risk (e.g., Framingham; ?others) – need to have consensus			
	• Consider how to set up a hypertension screening program for our FHT – evidence that it is worthwhile			
Regional Plan	• Consider for patients identified with hypertension to have such patients handled within our health team re: education/management and then liaison with Heart and Stroke if this is of use			
Provincial Plan				

Note: Information taken directly from participants' written statements