

Champlain Cardiovascular Disease Prevention Network

OPERATING PLAN 2006/2008

APPENDICES

FEBRUARY 2007

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Appendix 1: CCPN Performance Management Map

| | CCPN Health Goals / Outcome / Performance Indicator |
|--|--|
| Ontario's Performance Goals | Health Goal: Ensure the citizens of the Champlain District are the most heart healthy and stroke-free in Canada |
| Improve Health Status & Reduce Burden of Illness | Outcome 1: Decrease the incidence and burden of CVD in the Champlain District |
| | Indicator 1.1 Potential years of life lost (PYLL) due to CVD causes (LHIN SCORECARD) |
| | Indicator 1.2 Age-standardized and age-specific mortality from ischemic heart diseases |
| Improve Clinical Outcomes | Indicator 1.3 Age-standardized and age-specific mortality from cerebrovascular diseases |
| | Indicator 1.4 Age-standardized and age-specific hospitalizations from ischemic heart diseases |
| | Indicator 1.5 Age-standardized and age-specific hospitalizations from cerebrovascular diseases |
| | Indicator 1.6 30-day post hospital acute myocardial infarction survival rate (LHIN SCORECARD) |
| | Indicator 1.7 Inpatient readmission rate for acute myocardial infarction (LHIN SCORECARD) |
| Improve Healthy Behaviours, Health Promotion, and Disease Prevention | Outcome 2: Increase the proportion of Champlain residents with healthy blood pressure, blood cholesterol, blood glucose & body weight |
| | Indicator 2.1 Prevalence of high blood pressure (LHIN SCORECARD) |
| | Indicator 2.2 Prevalence of elevated LDL cholesterol |
| | Indicator 2.3 Prevalence of diabetes (LHIN SCORECARD) |
| | Indicator 2.4 Prevalence of overweight/obesity in adults (LHIN SCORECARD) |
| | Indicator 2.5 Prevalence of overweight/obesity in children and youth |
| | Outcome 3: Increase the proportion of Champlain residents who are smoke-free, physically active and making healthy food choices |
| | Indicator 3.1 Prevalence of daily smoking (> 12 years) (LHIN SCORECARD) |
| | Indicator 3.2 % of Champlain residents who participate in regular physical activity (LHIN SCORECARD) |
| | Indicator 3.3 % of Champlain residents who consume 5 or more fruits and vegetables daily (LHIN SCORECARD) |
| Indicator 3.4 % of Champlain residents who consume fast food greater than 1/week (LHIN SCORECARD) | |

Appendix 1: CCPN Performance Management Map (continued)

| CCPN Health Goals / Outcome / Performance Indicator | |
|--|--|
| Ontario's Performance Goal | Health Goal: Ensure the citizens of the Champlain District are the most heart healthy and stroke-free in Canada |
| Increase equity in the health care system | Outcome 4: Eliminate inequalities in cardiovascular risk and CVD mortality across the Champlain District. |
| | Indicator 4.1 Gap between provincial CVD mortality rate and Eastern Ontario County |
| | Indicator 4.2 Gap between provincial average and Eastern Ontario County (hypertension) |
| | Indicator 4.3 Gap between provincial average and Eastern Ontario County (blood cholesterol) |
| | Indicator 4.4 Gap between provincial average and Eastern Ontario County (diabetes) |
| | Indicator 4.5 Gap between provincial average and Eastern Ontario County (smoking) |
| | Indicator 4.6 Gap between provincial CVD mortality rate and Renfrew County & District |
| | Indicator 4.7 Gap between provincial average and Renfrew County & District (hypertension) |
| | Indicator 4.8 Gap between provincial average and Renfrew County & District (blood cholesterol) |
| | Indicator 4.9 Gap between provincial average and Renfrew County & District (diabetes) |
| | Indicator 4.10 Gap between provincial average and Renfrew County & District (smoking) |
| | Indicator 4.11 Gap between provincial CVD mortality rate and City of Ottawa |
| | Indicator 4.12 Gap between provincial average and City of Ottawa (hypertension) |
| | Indicator 4.13 Gap between provincial average and City of Ottawa (blood cholesterol) |
| | Indicator 4.14 Gap between provincial average and City of Ottawa (diabetes) |
| Indicator 4.15 Gap between provincial average and City of Ottawa (smoking) | |

Appendix 1: CCPN Performance Management Map (continued)

| | CCPN System Goals / Outcome / Performance Indicator | |
|---|--|--|
| Ontario's Performance Goal | System Goal: To build a system of excellence in integrated CVD prevention | |
| Increase the availability of high quality, relevant evidence | Outcome 5: Create a community of practice dedicated to evidence-based CVD prevention & management. Indicator 5.1 Availability of high quality, relevant evidence (LHIN SCORECARD) | |
| Increase access to and uptake of evidence for decision making and accountability | Outcome 6: Create proactive health practitioners and health organizations in settings across the Champlain District. Indicator 6.1 % of clinical cases being treated according to evidence-based clinical practice guidelines – <i>primary care</i> (LHIN SCORECARD) Indicator 6.2 % of clinical cases being treated according to evidence-based clinical practice guidelines – <i>hospitals</i> (LHIN SCORECARD) | |
| Increase access to key health services | Outcome 7: Increase access to key CVD prevention and management services. Indicator 7.1 Mean wait time for cardiac surgery (LHIN SCORECARD) Indicator 7.2 Access to evidence-based smoking cessation services | |
| Improve patient-centeredness, integration and quality of health services | Outcome 8: Develop a regional infrastructure to deliver evidence-based CVD prevention policies and practices in communities and organizations across the Champlain District. Indicator 8.1 To be developed | |
| | Objective 9: Empower patients, families, and communities to prevent and better manage CVD. Indicator 9.1 % of Champlain residents who know their blood pressure and can state whether it is normal or high Indicator 9.2 % of Champlain residents who know their cholesterol levels and can state whether or not they are abnormal Indicator 9.3 % of Champlain residents with hypertension who are taking action to help control their blood pressure Indicator 9.4 % of Champlain residents with abnormal cholesterol levels who are taking action to improve cholesterol levels Indicator 9.5 % of overweight or obese Champlain residents who are taking action to lose weight Indicator 9.6 % of daily smokers in the Champlain region who make at least one assisted quit attempt this year | |
| | Objective 10: Create policies & environments that enhance the CVD health of individuals, families and communities. Indicator 10.1 To be developed | |
| | Outcome 11: Create a sustainable resource & partnership model for the Champlain CVD prevention system. Indicator 11.1 % of targeted funding received from in-kind partner contributions Indicator 11.2 % of targeted funding received from government sources Indicator 11.3 % of targeted funding received from industry partners | |
| | Outcome 12: Contain cost of CVD and other chronic diseases. Indicator 12.1 Health Care spending associated with CVD (LHIN SCORECARD) | |
| | Outcome 13: Disseminate CCPN best practices, technical skills, and knowledge to other Ontario LHINs and Public Health Units. Indicator 13.1 Number of LHINs implementing Hospital-based Smoking Cessation Network Indicator 13.2 Number of LHINs implementing Guidelines in Practice Tool | |
| | Increase productive use and appropriate allocation of resources across the system | |
| | Increase the sustainability of the health care system | |

Appendix 2: CCPN Priority Initiative Performance Management Plan

| Priority Initiatives | Indicator |
|--|---|
| Champlain Hospital-based Smoking Cessation Network | Process |
| | Indicator P1. 1 Number of hospitals signed as partner in Champlain Hospital-based Smoking Cessation Network |
| | Indicator P1. 2 Number of hospitals with institutional policies for the delivery of smoking cessation services |
| | Indicator P1. 3 Number of hospitals tracking smoking status upon admission |
| | Indicator P1. 4 Number of hospitals with structured processes in place for delivery of smoking cessation services |
| | Indicator P1. 5 Number of hospitals implementing comprehensive in-patient cessation programs |
| | Indicator P1. 6 Number of health professionals trained in best practice cessation guidelines in network hospitals |
| | Indicator P1. 7 Number of hospitals tracking implementation and outcomes |
| | Outcome |
| | Indicator O1. 8 Number (%) of smokers receiving cessation counseling in Champlain network hospitals |
| | Indicator O1. 9 Number (%) of smokers referred to community smoking cessation services |
| Champlain Primary Care CVD Prevention Network | Impact |
| | Indicator I1.10 Relative 6-month quit rate attributable to cessation intervention |
| | Indicator I1.11 Number of smokers quit at 6-month post-discharge |
| | Process |
| | Indicator P2. 1 Number of physicians signed on as partner in Primary Care CVD Prevention Network |
| | Indicator P2. 2 Number of practices signed on as partner in Primary Care CVD Prevention Network |
| | Indicator P2. 3 Number of practitioners informed on evidence-based CVD prevention |
| | Outcome |
| | Indicator O2. 4 Number of patients screened according to evidence-based guidelines |
| | Indicator O2. 5 Number of patients with CVD risk factor treated according to evidence-based guidelines |
| | Indicator O2. 6 Number of CVD patients treated on best practice guidelines |
| Impact | |
| Indicator I2. 7 Number of hypertensive patients treated to target | |
| Indicator I2. 8 Number of patients with elevated cholesterol treated to target | |
| Indicator I2. 9 Number of patients with diabetes managed | |
| Indicator I2.10 Number of identified smokers who quit | |

Appendix 2: CCPN Priority Initiative Performance Management Plan (continued)

| Priority Initiatives | Indicator |
|---|---|
| Champlain Guidelines in Practice Initiative | Process |
| | Indicator P3. 1 Number of hospitals signed on as partner in Guidelines in Practice Initiative |
| | Indicator P3. 2 Number of hospitals with identified implementation team |
| | Indicator P3. 3 Number of hospitals with trained staff |
| | Indicator P3. 4 Number of hospitals with ACS care maps |
| | Indicator P3. 5 Number of patients for which GAP tool was complete |
| | Outcome |
| | Indicator O3. 6 Number (%) of ACS patients prescribed statins |
| | Indicator O3. 7 Number (%) of ACS patients prescribed beta-blocker |
| | Indicator O3. 8 Number (%) of ACS patients prescribed ACE inhibitor |
| | Indicator O3. 9 Number (%) of ACS patients prescribed ASA |
| | Indicator O3.10 Number (%) of ACS patients receiving brief smoking cessation counseling |
| | Indicator O3.11 Number (%) of ACS patients referred to cardiac rehabilitation |
| | Impact |
| Indicator I3.12 Number of hospitals achieving bench marks for secondary prevention | |
| Indicator I3.13 Number of patients who remain on best practice guidelines 1-year post-discharge | |
| Champlain Healthy School-aged Children Initiative | Process |
| | Indicator P4. 1 Number of schools with healthy school policy for cafeterias |
| | Indicator P4. 2 Number of schools with healthy school policy for vending machines |
| | Indicator P4. 3 Number of schools with daily physical activity programs |
| | Outcome |
| | Indicator O4. 4 Prevalence of children who are physically active (daily for 90 minutes) |
| | Indicator O4. 5 Prevalence of children with screen time hours > 3 per day |
| | Indicator O4. 6 Prevalence of children consuming >5 fruits and vegetables per day |
| | Indicator O4. 7 Prevalence of children consuming fast foods more than 2/week |
| | Impact |
| Indicator I4. 8 Prevalence of overweight in school-aged children | |
| Indicator I4. 9 Prevalence of obesity in school-aged children | |

Appendix 3: Champlain Hospital-based Smoking Cessation Network

Priority Initiative Description

This initiative is creating a network of hospital-based smoking cessation programs in the Champlain District to help hospitalized smokers quit smoking and stay smoke-free. The goal of the Champlain Hospital-based Smoking Cessation Network is to develop a regional infrastructure to identify and offer treatment to every hospitalized smoker in the Champlain District using best practice guidelines.

The network of hospital-based smoking cessation programs will use a common approach to identify smokers on admission, provide stop-smoking counseling and medication during hospitalization, link the patient back to community cessation resources, and provide follow-up after discharge from hospital. Once fully implemented, the program has the potential to reach an estimated 14,000 smokers in the Champlain District and result in 3600 successful quitters each year.

The Champlain Hospital-based Smoking Cessation Network is the first of the CCPN Priority Initiatives to rollout in the Champlain District through the provision of start-up funding from the Smoke-Free Ontario Strategy and the Ontario Hospital Association's Change Foundation. As of January 2007, 11 of the 17 Champlain LHIN hospitals are delivering comprehensive smoking cessation program, with the remainder scheduled for implementation in 2007.

Background and Rationale

Quitting smoking is the single most important intervention for the prevention and management of major chronic diseases, including heart disease, stroke and cancer²⁵. In addition, smokers have higher hospitalization rates and poorer clinical outcomes than non-smokers.

Admission to hospital can provide the ideal conditions for smoking cessation because of the restricted smoking environment, perceived vulnerability to illness and increased patient motivation to quit²⁶. It also provides a unique opportunity to systematically identify and intervene with patients who might not otherwise seek help with quitting.

National and provincial clinical practice guidelines suggest that all smokers receive minimal intervention counseling to support cessation prior to discharge from hospital and follow-up support²⁷. Brief cessation interventions using best practice guidelines for smoking cessation (ask, advise, assess, assist, arrange) increase the rate of smoking cessation by an absolute 15%^{25,28}.

Few Ontario hospitals have in place systems, policies, and environmental prompts that encourage and support consistent and effective identification and treatment of tobacco users. As a result, most smokers will leave hospital without ever having a health professional advise them to quit.

The Champlain Hospital-based Smoking Cessation Network offers a cost-efficient strategy to support and implement regional smoking cessation programs by using a combination of policy, system redesign, technology, and linkages with community partners. The Network is an expansion of an existing hospital-based smoking cessation program operating at the University of Ottawa Heart Institute (UOHI) that has been proven as an effective approach to cessation.

The Ottawa Model

Over the past several years, the UOHI has developed an institutional approach to identify and treat tobacco users admitted to the Institute. This program annually identifies more than 1300 smokers and provides cessation counseling services to approximately 90% of them. More importantly, this approach has led to an absolute 15% increase in long-term cessation rates (from 35% to 50% at 6 month follow-up) among these smokers.

The experiences of the UOHI have been used to develop the “Ottawa Model” for hospital-based smoking cessation. The Ottawa Model consists of:

- **Identification of smoking status upon admission:** At hospital admission, smoking status is identified through the medical and/or nursing history and documented in the electronic patient record. Smoking status is characterized using a standard question: “*Have you used any form of tobacco in the past six months.*”
- **Brief counseling delivered to all smokers prior to discharge from hospital:** All current smokers are advised to quit in a non-judgemental, unambiguous, personalized manner by their attending physician or nurse. The nurse counsellor provides minimal or intensive counseling in accordance with best practice guidelines, based on the patient’s readiness to quit smoking.
- **Pharmacotherapy:** Smokers are offered pharmacotherapy to assist with smoking cessation (and also to alleviate the withdrawal symptoms that almost always develop in smokers admitted to hospital). Care is taken to ensure that pharmacotherapy – usually Nicotine Replacement Therapy – is titrated to meet the needs of the patient in forestalling the emergence of withdrawal symptoms.
- **Self-help materials:** All smoking patients receive self-help materials provided by the Canadian Cancer Society, and standard orders ensure that all are referred to a nurse counsellor specialist.
- **Linkages to community smoking cessation resources and programs:** Patients are referred to additional community-based smoking cessation services as required to support their quit attempt.
- **Follow-up contacts:** All patients are offered post-hospital follow-up using interactive voice response (IVR) technology. IVR follow-up consists of a series of automated, computerized calls that inquire about smoking status and any difficulties experienced in the cessation process. Calls occur at 3, 14, and 30 days post-discharge – times when relapse is judged to be most likely – and then monthly for a six-month period. Nurse counsellors will scan the results of the IVR calls and respond with more personal interventions and assistance as appropriate.

Goals and Objectives

The primary goal of this initiative is to increase the number of smokers who quit and remain smoke-free six months after hospitalization at Champlain LHIN hospitals.

The objectives are:

- To introduce system-level interventions for the identification, documentation, and treatment of tobacco users across hospitals in the Champlain LHIN;
- To provide skill-based training to physicians and nurses in each of the Champlain regional hospitals to help them intervene effectively with patients who are smokers; and,
- To develop systems to link hospitalized smokers to existing cessation resources in their communities as appropriate.

Implementation Activities

To implement a smoking cessation system, institutions require strategic, tactical, technical and practical assistance to overcome barriers to the implementation of comprehensive institutionalized smoking cessation plans.

Experts have identified 10 institutional practices associated with effective treatment for tobacco use among hospitalized patients (see Table A1). These practices form the foundation to delivering the “Ottawa Model” and relate to identification of tobacco users, elements of intervention, follow-up processes, and knowledge transfer. Employing them will result in an increase in smoking cessation and a reduction in the costs resulting from associated diseases.

Table A1: The 10 Institutional best-practices for treating tobacco use and dependence

| |
|---|
| Identification |
| Tobacco use status queried and documented for all admissions. |
| Intervention |
| Tobacco dependence treatment delivered by trained counselor. |
| Tobacco dependence treatment delivered in accordance to the 5A’s and included on clinical pathways, care maps and/or Kardex. |
| Pharmacotherapy (e.g. Nicotine Replacement Therapy, Bupropion) information and prescriptions offered to all current tobacco users. |
| Follow-up |
| Processes to follow-up tobacco users for at least one month after hospital discharge in place. |
| Knowledge Transfer |
| Training (e.g. workshops, in-services) for tobacco dependence treatment offered to health care providers. |
| Patient self-help materials readily available. |
| Referral links to community smoking cessation programs and Smoker’s Help Line readily available. |
| Processes to evaluate the degree to which health care providers are identifying, documenting, and treating patients who use tobacco in place. |
| Processes to provide feedback to clinicians about performance and outcomes of intervention in place. |

A facilitation process is being used to support program implementation in each of the Champlain hospitals and ensure implementation of the 10 institutional best practices for treating tobacco use and dependence. Expert coaching teams will spend time meeting with senior management of each of the LHIN hospitals, supporting institutional policy changes regarding the treatment of smokers, training health professionals in minimal smoking cessation counseling techniques, supporting process design, and implementing a smokers follow-up system. An average of six months is required from the time of the hospital signing on to the Champlain Hospital-based Smoking Cessation Network to the delivery of the best practice model as part of institutional care. The following activities will be part of the implementation of this program at each of the Champlain LHIN regional hospitals:

- a) **Institutional commitment:** a clear commitment to the program from the senior administrative and clinical leadership of the hospital.
- b) **Institutional policy review and development:** assessment of the institution’s current practice against best practices and the development of an institutional smoking cessation policy.
- c) **Organizational process redesign for the identification and treatment of smokers:** development of the appropriate ‘care maps’ or other clinical protocols that mandate the delivery and documentation of the

intervention; development of the forms, records and other documents necessary to capture the relevant smoking history, levels of motivation and confidence, and other pertinent clinical details.

- d) **Coaching & training of professional staff at the hospitals:** training of all medical and nursing staff in the fundamentals of the program and smoking cessation.
- e) **Implementation of centralized smokers' follow-up system:** installation of the IVR technology and processes for registering smokers admitted to hospitals. Once registered, the follow-up contacts will be managed centrally for the region by the UOHI.
- f) **Development of evaluation & quality assurance system:** coordinated processes for the ongoing evaluation of the program including baseline assessment of smoking status amongst hospitalized smokers, collection of quality assurance information, and institutional feedback and reporting mechanisms.

Activities to Date

The Champlain Hospital-based Smoking Cessation Network was the first CCPN Priority Initiative to rollout in the Champlain District. Start-up funding for this initiative was received from the Smoke-Free Ontario Strategy and the Ontario Hospital Association's Change Foundation.

All 17 of the Champlain LHIN hospitals have signed a commitment to be part of the Champlain Hospital-based Smoking Cessation Network and are at various stages of implementation. As of January 2007, 11 LHIN hospitals are delivering the program to all hospitalized smokers, with the remaining 6 hospitals in the process of implementing the program. Additionally, the Children's Hospital of Eastern Ontario (CHEO) has expressed interest in signing on and is awaiting implementation in 2007. More than 1000 health professionals (physicians, nurses, allied health) have been trained in evidence-based cessation counseling to date. Moreover, several of Ontario's LHINs have expressed interest in broader provincial rollout of this model in their jurisdictions.

Table A2: Status of Priority Initiative Rollout in Champlain LHIN Hospitals

| Currently delivering program | Implementation in Process | Pending |
|--|---|--|
| <ul style="list-style-type: none"> ▪ University of Ottawa Heart Institute ▪ The Ottawa Hospital* ▪ Hawkesbury & District General ▪ The Rehabilitation Centre ▪ Winchester District Memorial Hospital ▪ Carleton Place & District Memorial Hospital ▪ Arnprior & District Memorial Hospital ▪ Pembroke Regional Hospital ▪ Renfrew Victoria Hospital ▪ St. Francis Memorial Hospital (Barry's Bay) ▪ Queensway-Carleton Hospital | <ul style="list-style-type: none"> ▪ Hôpital Montfort ▪ Kemptville District Hospital ▪ Cornwall Community Hospital ▪ Glengarry Memorial Hospital (Alexandria) ▪ Almonte General Hospital ▪ Deep River & District Hospital | <ul style="list-style-type: none"> ▪ CHEO |

*selected departments: OBS/GYN Cardiology, Stroke, Vascular, ENT, Thoracic, Lung Cancer, Shirley Greenberg Women's Health Centre

Performance Management Plan

The evaluation plan will measure the success of the program at the level of the patient, health care professional, institution, and community.

The primary outcome measure at the patient level will be 6-month quit rates. The relative quit rates attributable to the hospital-based smoking cessation program will be calculated as the difference between 6-month cessation rates in hospitals pre- and post-implementation of the program. Pre-implementation smoking rates will be established by surveying consecutive hospital admissions over a 30-day period and conducting follow-up of these patients regarding their smoking status 6-months post-discharge.

Satisfaction with the program will be evaluated at the level of the patient, hospital staff, and the organization. Cost and cost-effectiveness of the program will be evaluated globally and by patient sub-group. Community level outcomes will be measured by the use of community-based cessation services offered by public health units or other local providers.

Performance Indicators

- Number of hospitals signed as partner in Champlain Hospital-based Smoking Cessation Network
- Number of hospitals with institutional policies for the delivery of smoking cessation services
- Number of hospitals tracking smoking status upon admission
- Number of hospitals with structured processes in place for delivery of SC services
- Number of hospitals implementing comprehensive in-patient cessation programs
- Number of health professionals trained in best practice cessation guidelines in network hospitals
- Number of hospitals tracking implementation and outcomes
- Number of smokers receiving cessation counseling in Champlain network hospitals
- Number of smokers referred to community smoking cessation services
- Relative 6-month quit rate attributable to cessation intervention
- Number of smokers quit at 6-month post-discharge

Targets and Expected Outcomes

| | Hospitals | Professionals Trained | Smokers Reached | Quit Rate | New Quitters |
|-----------------|--|---|---|---|--|
| Measure | Number of hospitals implementing comprehensive in-patient cessation programs | Number of health professionals trained in best practice cessation guidelines in Champlain Network hospitals | Number (%) of smokers receiving cessation counseling in Champlain Network hospitals | Relative 6-month quit rate attributable to cessation intervention | Number of smokers quit at 6-month post-discharge |
| Current | 1 | <100 | 1,000 | 15% | 150 |
| Target (2-year) | 14 | 1,000 / year | 10,000 / year | 15% | 1,500 / year |
| Target (5-year) | 17 | 1,000 / year | 14,000 / year | 15% | 2,100 / year |

Partners

University of Ottawa Heart Institute (UOHI)

The UOHI will serve as the lead implementation partner. The UOHI will be responsible for working with hospitals to implement network start-up activities, provide expert support during program implementation, and support quality assurance, evaluation, and monitoring activities. Experts from the UOHI will train physicians, nurses and administrators in regional hospitals to develop and implement their own effective in-patient cessation program.

Champlain Public Health Units

Regional public health units will work with hospitals and the UOHI to create links to existing cessation services offered by public health or other community partners. As appropriate, public health units will support training of hospital staff and support hospitals in program implementation.

Champlain LHIN Hospitals

Regional hospitals will be responsible for integrating cessation protocols into existing hospital policies and practice, delivering bed-side cessation counseling, integrating information technology systems, and supporting data collection and evaluation activities.

Tobacco Control Action Network (T-CAN)

The Eastern Ontario T-CAN will assist with the development of inventories of community-based smoking cessation resources and the collection of data regarding the use of community-based and provincial cessation services by program participants.

Appendix 4. Champlain Primary Care CVD Prevention Network

“Improved Delivery of Cardiovascular Preventive Care through Outreach Facilitation”

Priority Initiative Description

The aim of this initiative is to increase the uptake of evidence-based practice for the secondary prevention and management of patients with CVD and cardiovascular risk factors (hypercholesterolemia, hypertension, diabetes, renal impairment, smoking, obesity, and physical inactivity) in primary care practices throughout the Champlain District. The initiative centres on the use of an Outreach Facilitation Model, in which skilled health professionals known as facilitators (or Practice Change Consultants) serve as an expert resource to primary care practices. The facilitators will provide hands on support to practices to implement tools and processes designed to incorporate evidence-based practices into the routine delivery of care. Specifically, the facilitator will provide support in three areas: (a) practice performance assessment, feedback, and consensus building towards goal setting and implementation, (b) clinical, technical, and organizational resources, and (c) practical advice and support in moving through the challenges associated with practice change. The Champlain Primary Care CVD Prevention Network will also create the infrastructure to strengthen coordination of services between primary care practices and other health sectors including specialty care and public health. This initiative has the potential to reach more than 500 primary care practices and 700,000 Champlain residents and will transform the delivery of primary care services.

Background and Rationale

Primary care is the cornerstone of the Canadian health care system and a central component to a regionalized cardiovascular disease (CVD) prevention and management system. General practice visits provide a unique opportunity to identify and treat individuals with or at risk for CVD. Due to an increasingly aging population, family physicians are now caring for more patients with complex chronic diseases, such as CVDs. They are in an ideal position to identify and treat individuals with and at risk for these diseases¹⁷⁻¹⁹.

Unfortunately, routine integration of prevention guidelines into practice has proven to be challenging²⁰⁻²². Chronic disease prevention and management is often erratic in many physicians' offices as health care services retain their traditional orientation toward diagnosis and short-term treatment of acute conditions^{19,23}. Physicians face competing demands while attending to their patients' immediate needs and experience lack of time, resources, practical tools, and meaningful incentives²⁴⁻²⁷. There is an urgent need to develop ways to support the systematic integration of evidence-based CVD care into practice.

Powerful evidence-based interventions for cardiovascular risk reduction, including highly effective medication and lifestyle modifications, have been available for some time. Most CVD is preventable if patients and physicians adhere to existing guidelines for prevention, detection and management of cardiovascular risk factors^{10,11}. These clinical practice guidelines are designed to make it easier to incorporate evidence-based care into regular practice, but there is a gap between evidence and practice in the field of CVD prevention^{12,13}. 30-40% of patients fail to receive treatments of proven effectiveness, and 20-30% of patients may receive care that is not needed or is potentially harmful^{12,13}.

For the effective delivery chronic disease prevention and management services, change entails shifting from medical care that is reactive and event-driven to care that is proactive and planned. Health care services must be organized in ways more appropriate for management of chronic conditions. A more effective and cost-effective balance between medical care and self-management of chronic illness is also needed. This approach is consistent with Ontario's Chronic Disease Prevention and Management Framework through a more proactive, organized approach and requires that physicians develop systems in their practices that include these elements:

- productive interactions between informed, motivated patients and prepared physician;
- self-management support that empowers patients to take greater responsibility for their own health;
- decision-support tools that assist physicians and staff in providing the recommended care;
- clinical information systems that track the care of individual patients as well as populations.

Supporting Evidence-based CVD Prevention Practices in Primary Care

The medical community strongly advocates implementation of proper care guidelines, yet there are few resources to help physicians, prevention specialists and health administrators work together to achieve this aim. Most quality improvement strategies have focused on identifying, synthesizing, and disseminating evidence to doctors in practical accessible formats – i.e. reviews in clinical journals, clinical guidelines, electronic sources of information, continuing medical education (CME) courses and conferences. Unfortunately, these passive methods have had little or no effect on physician behavior^{14,15,16}.

Many interventions have been tested to overcome obstacles to implementing better evidence-based care. Certain common themes for improvement were identified: computer decision support systems (i.e. reminders) improved doctors' performance, educational outreach visits benefited prescribing decisions, and multiple interventions were more effective than single interventions^{15,17,18}. The up-to-date evidence strongly suggests that in order to create sustainable change in practice behavior, dissemination of quality improvement interventions must involve multifaceted, individualized, system-level approach^{36,37,38-40}. That involves tailoring of tools and strategies for guideline implementation to the practice's unique motivations, structures and processes and thereby making their adoption and institutionalization into the daily routine much more likely.

Outreach Facilitation for Prevention and Management of CVD

Outreach facilitation is emerging as an intervention that is particularly effective in supporting practice change and achieving successful and sustainable outcomes in evidence-based care performance. This flexible, multifaceted intervention is delivered by trained individuals with nursing and management background who are able to work within complex and varied practice setting.

Over the past several years, with funding from the MOHLTC, the Department of Family Medicine at the University of Ottawa has been working on testing, improving and expanding an innovative strategy – the Outreach Facilitation Model (OFM)^{8,9}. This strategy is designed to assist primary care practice teams with changing their structures at the system level and organizing their work towards more effective care in prevention and chronic disease management - the major deliverables of primary care renewal.

The outreach facilitators work with practices to increase the use of evidence-based guidelines and facilitate continuous quality improvement in a practice setting. The facilitators support practices in designing appropriate methods to structure and implement care improvements, provide education on how to organize the work to integrate preventive care and chronic disease management into the routine operation, and assist in the coordination and integration of practice activities with other services, including specialists and community resources.

Several reviews of multiple prospective and randomized controlled trials on outreach facilitation provided evidence supporting facilitation visits as effective in modifying health professional behavior, increasing preventive service delivery rates, improving practice processes, and patient care outcomes⁴²⁻⁴⁴. Randomized controlled trials with community-based family practices in Ontario show that outreach facilitation leads to substantial improvements (36% over an 18 month period) in the delivery of preventive services, while producing net savings to the government at a 40% rate of return on investment^{8,9}. The most recent trial provided evidence for sustainability of the beneficial effects of outreach facilitation. Once implemented, the outreach facilitation program can serve as a channel for introducing various other quality improvement programs into the practice.

Goals and Objectives

The goal of the Champlain Primary Care CVD Prevention Network is to improve delivery of CVD secondary preventive care and management in the Champlain District through outreach facilitation.

The objectives are:

- to establish an Outreach Facilitation program in primary care practices throughout the Champlain District to improve the secondary prevention and management of cardiovascular disease in the primary care setting. The program will assist the practices (Champlain CVD Prevention Network) with implementation of evidence-based guidelines (Champlain Primary Care CVD Prevention Guideline) by targeting the following risk factors:
 - diabetes
 - renal impairment
 - hyperdyslipidemia (undesirable blood cholesterol)
 - hypertension (high blood pressure)
 - smoking cessation
 - weight management / physical activity
- to rigorously evaluate this program's efficacy and cost effectiveness

Intervention Description

Primary Care Offices Being Targeted

The program will be implemented in primary care practices of the Champlain LHIN. No restrictions will be imposed on the recruitment process; all practices in the region will be eligible to participate.

Patients Being Targeted

Patients targeted for the secondary CVD prevention through the outreach facilitation program will include men and women over 40 years of age, who meet at least one of the following criteria:

1. have established cardiovascular disease: Coronary Artery Disease, Cerebrovascular disease (documented stroke and/or TIA), Peripheral Vascular Disease;
2. have Diabetes Mellitus (DM)
3. have Chronic Kidney Disease (CKD)
4. are at high risk of CVD based on a presence of at least three of the following established cardiovascular risk factors: age (males ≥ 45 , females ≥ 55), smoker status, hypertension, and dyslipidemia⁴⁶⁻⁴⁸

Evidence-Based Practices Being Targeted

Evidence Monitoring Committees were established for each of the 7 risk factors to be targeted by the outreach facilitation program: hypertension, dyslipidemia, diabetes, chronic kidney disease, smoking, obesity, and physical inactivity. Each committee has evaluated current clinical practice guidelines in the area of CVD prevention and management using the AGREE guideline evaluation tool⁴⁹. Recommendations applicable to primary care were extracted, summarized and placed into algorithm format. Knowledge translation tools appropriate to primary care setting and conforming to best practice recommendations were reviewed and agreed upon. After extensive stakeholder input the final product, the Champlain CVD Prevention Guideline is ready for the regional outreach facilitation program. The committees agreed to remain responsible for monitoring relevant guidelines for updates and changes throughout the duration of the initiative.

Program Components

The Champlain CVD Prevention Network includes several program components which, in combination, are designed to create a regional primary care system oriented towards improved preventative CVD care. The program components include:

a) Opinion Leaders – Program Buy-In Strategy

In previous related research trials we have recruited up to 46% of practices. In order to reach the 50% target set for this initiative, we will augment our standard recruitment strategy by utilizing physician opinion leaders and extending the recruitment period beyond the beginning of the intervention. This approach has been reported to result in response rates ranging from 39-91%⁴²⁻⁴⁵. By engaging physician leaders in endorsing and actively participating in the initiative we will be able to foster a more receptive attitude to the program. We have already identified physician leaders in Champlain LHIN and we are currently in the process of arranging local meetings with them. These physicians will later assist with program communication and dissemination strategies. It should be also mentioned that due to our past research activities in primary care practices in the region, our program of outreach facilitation has gained credibility which we expect will aid the recruitment process, especially when combined with the prestige associated with our partner - the University of Ottawa Heart Institute. Evidence suggests that recruitment strategies which draw on previous relationships are quite effective and provide a high yield of recruited practices^{41;44-45}. Furthermore, the long-term nature of our program and a phased roll-out plan is likely to enhance the recruitment rate as the facilitators will continue recruiting after implementation begins.

b) KT Tools

Champlain CVD Prevention Guideline: The Champlain CVD Prevention Guideline has been designed to be easily accessible, succinct, and direct with regards to the clinical practice recommendations in the area of CVD prevention and management. It is supported by a comprehensive list of references. The document has been distributed to several local family physicians and feedback regarding its usefulness in the context of primary care setting has been collected during a focus group session. Further adjustments were made and the product was finalized for region-wide distribution to primary care providers as a component of the outreach facilitation CVD prevention program.

Decision Aid and Risk Factor Management Tools: Several tools designed by Dr. Joel Niznick (all tools available for download at <http://www.cvtoolbox.com>), a member of our team were reviewed and endorsed by the Evidence Monitoring Committees for inclusion in the present initiative. Other tools have also been evaluated and endorsed. These tools include:

- Integrated risk factor screening tool;
- Guide for Comprehensive Risk Reduction coupled with the CV Risk Flowsheet;
- Lipid Optimization Tool;
- The Cardiovascular Risk Reduction Toolbox (cvtoolbox);
- Smoking Cessation (Ask, Assist, Refer) tool used by the Heart Institute Smoking Cessation Program.

c) Outreach Facilitation Visits

In the context of the present initiative, the outreach facilitation visits will target evidence-based practices relating to secondary prevention of CVD and management of the cardiovascular risk factors and will entail the following main components:

Audit and Feedback: Following all standard ethical and confidentiality protocols and procedures, data extractors will randomly select 70 patient charts per practice to assess the pre-intervention baseline cardiovascular preventive care performance (note: the same measures will be then collected at various time points after program implementation to assess its effectiveness). For each practice, a feedback session led by a facilitator will include presentation of the results of the audit for the individual practice's preventive performance and a comparison to a peer group mean. An additional part of the feedback will be a self-assessment by the practice of their current state of chronic disease care delivery using tools developed and endorsed by the MacColl Institute for Healthcare Innovation Center for Health Studies (Assessment of Chronic Illness Care (ACIC) and Patient Assessment of Chronic Illness Care (PACIC). The main goal of this component is to raise awareness about the current prevention performance patterns in the practices, identify areas that need improvement, and motivate the providers receptivity to change.

Consensus Building: This component involves facilitators helping practices with identification of opportunities for improvement and selecting appropriate strategies to address them. This is a process that evolves in alignment with

each practice's readiness to change. All members of the practice will be involved in setting the goals and practical targets for improving the delivery of cardiovascular care.

System Tools: The facilitator will work with the practices to encourage implementation of the Champlain CVD Prevention Guideline helped by the various decision aids and tools. The practices will be encouraged to select and customize the available tools to their needs and preferences.

Others: The core strategies listed above will be supplemented, as needed, by others, such as opinion leaders, networking, and patient self-management. For example, facilitators will organize a series of special half-day-long meetings for practices held in different locations within the Champlain LHIN. These workshops will bring together, on a local level, all participating primary care practitioners from various disciplines and sites along with several opinion leaders and experts to share experiences, ideas and learn new techniques pertaining to various aspects of quality improvement in a practice.

Implementation Activities

To allow for the sequential roll-out of the program, the Champlain LHIN has been divided into 9 smaller geographic regions, referred to from now on as "divisions", using GIS mapping technology. The rollout will occur in 3 divisions per annum, with 3 years required for full program rollout across the Champlain District.

Following training each facilitator will be assigned up to 12 practice sites. Our previous trial revealed that 12 practices is the maximum number of practices a facilitator can manage to produce desirable performance improvements in care delivery³⁸. The first year of program implementation will involve *intense* facilitation consisting of frequent (once every 3-4 weeks) visits to the practices. Afterwards, the intervention will move into a *sustainability mode*, during which the frequency of visits will decrease to one every 6-8 weeks during the second year, and one every 12-15 weeks during the third year and thereafter. This will be done to maximize the efficiency of the facilitators by enabling each facilitator, after the first year of program implementation in an average number of 12 practices, to take on 12 new practices during the second year, while still being able to sustain contact with the previous 12 practices. Similarly, in the third year, another set of 12 practices will begin the "*intense*" phase of program implementation, while the frequency of visits for the practices that begun the program within the past 2 years will dramatically decrease as they will have moved into the *sustainability phase*. In this way, conscious efforts will be directed at sustaining program-related improvements beyond the intense implementation period of the first 12 months by teaching the practices to maintain new levels of performance with less support from the facilitator.

Performance Management, Targets and Expected Outcomes

Performance Management Plan

The Champlain Primary Care CVD Prevention Network will undergo a rigorous evaluation designed to assess:

- i) the quality of the process of care delivery by primary care practitioners in the Champlain LHIN;
- ii) the change in clinical outcomes for patients with established CVD and those at high cardiovascular risk;
- iii) the reach and population impact of the network; and
- iv) the cost-effectiveness of the model.

Performance Indicators

Performance indicators include process indicators, quality of care process indicators and clinical outcome indicators.

- Number of physicians signed on as partner in Primary Care CVD Prevention Network
- Number of practices signed on as partner in Primary Care CVD Prevention Network
- Number of practitioners informed on evidence-based CVD prevention
- Number of patients screened according to evidence-based guidelines

- Number of patients with CVD risk factor treated according to evidence-based guidelines
- Number of CVD patients treated on best practice guidelines
- Number of hypertensive patients treated to target
- Number of patients with elevated cholesterol treated to target
- Number of patients with diabetes treated to target

Evaluation Design

A “stepped wedge” design where the outreach facilitation program will be rolled-out sequentially to the trial participants, in geographical regions chosen by a random order, over a number of equally spaced time intervals during the 5 year program implementation period. The phased nature of this design offers a unique advantage since the logistical, financial, and practical constraints would not allow an initiative of this magnitude/scale to be implemented simultaneously across all the participating practices in the region.

There will be 4 data collection points throughout the 5-year program implementation period. In the analysis, the data points before the program implementation (the baseline section of the wedge) will be compared to the data points after the program begun (the implementation section of the wedge) both within and between the divisions. The multiple baseline data obtained for those divisions randomized to begin the program later than others will allow for underlying temporal changes to be considered as a variable in data analysis in order to determine, for example, whether any secular changes had an impact on effectiveness of the program⁵⁰.

Physicians and outreach facilitators will be aware of the key performance indicators that will be used to evaluate the program’s effectiveness on the premise that the success of any health program depends largely on the knowledge and awareness of clearly identified goals for improvements and indicators chosen to reflect these improvements. Nonetheless, the chart abstractors will be blinded as to whether the practice they are auditing is in the baseline or program implementation phase.

Targets & Expected Outcomes

| | Group Practices | Physician Practices | Population Reach |
|----------------------|--|---|--|
| Measure | Number of practices participating in the outreach facilitation program | Number of physicians participating in the outreach facilitation program | Number of patients reached through the primary care CVD prevention program |
| Current | 0 | 0 | 0 |
| Target Year 1 | 75 | 150 | 200,000 |
| Target Year 2 | 150 | 250 | 400,000 |
| Target Year 3 | 225 | 350 | 600,000 |
| Target Year 4 | 225 | 350 | 600,000 |

Partners

- Department of Family Medicine, University of Ottawa
- University of Ottawa Heart Institute
- Ottawa Cardiovascular Centre
- Ottawa Regional Stroke Program
- Elisabeth Bruyère Research Institute
- Champlain Primary Care Practices

Appendix 5: Champlain Hospital CVD Prevention Network

“Integrating Guidelines in Practice & Empowering CVD Patients to Manage their Disease”

Priority Initiative Description

This initiative will develop a regionalized approach for secondary prevention of CVD according to evidence-based practice guidelines for patients admitted to hospital with Acute Coronary Syndrome (ACS). Expert coaching teams will assist Champlain District hospitals to implement the “Guidelines in Practice” discharge tool. The tool ensures all patients receive care at time of discharge according to evidence-based guidelines for pharmacotherapy and lifestyle modification, as well as supporting patient self-management. These guidelines have been proven to improve patient outcomes and reduce re-hospitalization.

The project will develop an infrastructure to support continuous quality improvement at a regional level and to monitor program performance against regional benchmarks. With the potential to reach an estimated 5000 patients annually in the Champlain District, the project will have a significant impact on regional CVD mortality and re-admission to hospital. This initiative has the potential for provincial and national rollout as a systems-level approach to evidence-based treatment of CVD. Using the infrastructure developed for the project, it can be expanded to include other CVD populations.

Background and Rationale

Acute Coronary Syndrome (ACS) is a significant public health problem in Ontario²². ACS patients include those patients admitted to hospital with acute myocardial infarction (heart attack) as well as those patients admitted with cardiac related symptoms who are at risk for heart attack. Large clinical trials have provided evidence for the development of standardized evidence-based guidelines (EBGs) to treat ACS. Compliance with these guidelines significantly improves survival²². Despite the development and dissemination of evidence-based guidelines, their use among patients with ACS is sub-optimal. A number of patients, for a variety of reasons, come off the best-practice guidelines during the first 6 months post-hospital discharge. This is a major risk to patients, and it raises concerns about the continuity of care as patients move between the hospital and community settings.

In-hospital initiation of cardiovascular protective medications as the standard of care for CVD patients could substantially reduce the risk of future cardiovascular events and subsequent hospitalizations. Furthermore, it could prolong life in the significantly large number of patients suffering from CVD.

The failure to reach clinical treatment goals in the hospital setting is largely due to the absence of a system to ensure adherence as part of the standard of care. Actively changing systems of care have reduced the gap in the application of secondary prevention guidelines in hospitalized CVD patients²³. The most successful hospital-based quality improvement program so far is the Get with the Guidelines (GWTG) initiative, developed by the American Heart and Stroke Association (AHSA)^{23,24}. GWTG involves multiple organizations and physicians who champion the process among their hospital teams of cardiologists, neurologists, primary care physicians, nurses and pharmacists.

The University of Ottawa Heart Institute (UOHI) pioneered a Canadian version of the GWTG initiative. The core of the program is a paper-based patient management tool, developed in accordance with evidence-based secondary prevention guidelines, which provides data collection, embedded reminders and guideline summaries, and quality performance reports. The tool emphasizes compliance with instructions to advance the understanding of the best approaches.

This project has been designed to create a regionalized approach to ACS treatment that:

- Empowers patients to be more involved with their evidence-based care;
- Develops tools to improve compliance with EBGs;
- Develops educational materials to spread knowledge throughout the field;
- Creates a mechanism to continuously improve and measure quality; and,
- Establishes a data infrastructure through the Canadian Institute for Health Information (CIHI) to support collection and reporting as well as national dissemination.

The most important feature of this project is the development of a patient discharge tool that incorporates the EBGs. Nursing staff assesses each patient prior to discharge for compliance against the EBGs. If any of the best practices are not in place, the most responsible physician is contacted, and the necessary actions are taken. In addition, the patient receives a copy of the tool to take to his/her family physician to ensure the plan of care is well understood and to enhance continuity of care.

Goals and Objectives

The goal of the Champlain Guidelines in Practice initiative is to improve compliance with ACS evidence-based guidelines through the implementation of standardized discharge protocols across all 17 hospitals in the Champlain LHIN.

The objectives of the initiative are:

- To improve the delivery of care based on evidence-based guidelines for ACS;
- To increase knowledge translation among local providers for best practices in ACS care;
- To improve accountability at the provincial/national level through collection of data on compliance with evidence-based guidelines; and,
- To provide information to government on the feasibility of capturing best practice data and the ability to link it to pay for performance.

Implementation Activities

a) Assessment of Existing Institutional Practices & Processes

The initiative will complete an audit of existing institutional practices for secondary prevention of ACS. It will also conduct an evaluation of capacity, volumes, and infrastructure to support implementation of the patient discharge tool.

b) Site-specific Customization of the Tool

The Guidelines in Practice tool will be adapted to fit the needs of the individual practices. The project will include recommendations to support integration of the tool into routine hospital practices and ensure processes are in place to support tool completion, data collection, and quality assurance reporting.

c) Facilitated Implementation

A coaching approach to knowledge dissemination will be used to implement the tool in hospitals throughout the Champlain District. The implementation process will:

- Provide educational programs to physicians and hospital staff;
- Monitor accuracy of tool use (i.e. all appropriate patients receive the discharge tool); and,
- Ensure the tools are properly completed (e.g. care pathway, initiation of standard orders, and discharge tool).

An estimated 5 days per institution is required for initial implementation with an additional 2 to 5 days of support for quality assurance. A team of experts from the UOHI will coach Champlain LHIN hospitals.

d) Infrastructure to Support Quality Improvement

The initiative will develop an infrastructure to monitor implementation against quality indicators. The CIHI Discharge Abstract Database will identify quality assurance issues locally and regionally. A quality improvement plan for each hospital will ensure regional 2- and 5-year targets are reached.

e) Monitoring and Reporting of Results

The initiative will publish and circulate an annual report to support evaluation and to provide feedback to regional hospitals regarding performance.

f) Provincial and National Rollout and Expansion to Other Guideline in Practice Modules

The infrastructure established in the Champlain District will be used for broader rollout of the Guidelines in Practice program. The infrastructure will evaluate opportunities for provincial and national rollout of the program and support implementation of other Guidelines in Practice modules, such as stroke care and heart failure.

Performance Management Plan

A partnership has been developed with CIHI to capture data that provides information on compliance with best practices as part of the national CIHI Discharge Abstract Database (DAD). The tool is designed to capture data in less than one minute per chart, making it a feasible way of collecting data on best practice compliance at discharge. Using the CIHI database builds on the existing system and provides a cost effective, scalable tool for data collection. The data provides important information to providers, hospitals, and government on the performance of the health care system. This allows for feedback to providers as well as the ability to benchmark across other facilities.

Performance Indicators

- Number of hospitals signed on as partner in Guidelines in Practice Initiative
- Number of hospitals with identified implementation team
- Number of hospitals with staff trained according to best practice guidelines
- Number of hospitals with ACS care maps
- Number of patients for which GAP tool was complete at discharge
- Number (%) of ACS patients prescribed statins
- Number (%) of ACS patients prescribed beta-blocker
- Number (%) of ACS patients prescribed ACE inhibitor
- Number (%) of ACS patients prescribed ASA
- Number (%) of ACS patients receiving brief cessation counseling
- Number (%) of ACS patients referred to cardiac rehabilitation
- Number of hospitals achieving bench marks for secondary prevention
- Number of patients who remain on best practice guidelines 1-year post-discharge

Targets and Expected Outcomes

| | Hospitals | Patients Reached | 30-day Mortality Rate | ASA | Beta-blockers | ACE Inhibitors |
|-----------------|---|---|---------------------------|---|---|---|
| Measure | Number (%) of hospitals implementing evidence-based discharge protocols | Number (%) of ACS patients discharged according to evidence-based practice annually | 30-day AMI mortality rate | Percent of ACS patients prescribed ASA at discharge | Percent of ACS patients prescribed beta-blockers at discharge | Percent of ACS patients prescribed beta-blockers at discharge |
| Current | 1 (6%) | - | 12.3% | - | - | - |
| Target (2-year) | 7 (41%) | 5000 (95%) | 7% | 80% | 80% | 80% |
| Target (5-year) | 17 (100%) | 5000 (95%) | 4% | 95% | 95% | 95% |

| | Statins | Smoking | Diet | Exercise | Rehabilitation |
|-----------------|---|--|---|--|---|
| Measure | Percent of ACS patients prescribed statins at discharge | Percent of ACS patients counseled about smoking cessation at discharge | Percent of ACS patients counseled about diet at discharge | Percent of ACS patients counseled about physical activity at discharge | Percent of ACS patients referred to cardiac rehabilitation at discharge |
| Current | - | - | - | - | - |
| Target (2-year) | 70% | 80% | 80% | 80% | 80% |
| Target (5-year) | 95% | 95% | 95% | 95% | 95% |

Partners

- University of Ottawa Heart Institute
- Canadian Institute for Health Information (CIHI)
- Champlain Local Health Integration Network
- Champlain LHIN Hospitals

Appendix 6: Champlain Sentinel CVD Surveillance Program

Priority Initiative Description

This initiative will develop a state-of-the-art surveillance system capable of providing timely information to support evidence-based decision making for chronic disease prevention and management planning in the Champlain District. This initiative will create an infrastructure for the collection and timely dissemination of demographic, population health, behavioural, clinical, health administration, and policy data. The initiative will involve the integration of data housed in existing health databases as well as the collection of supplemental data drawn from a large sample of Champlain residents. The surveillance system will provide comparable data for evaluating the burden of CVD regionally, understanding time trends and geographical distribution of disease, identify high risk populations, and determine if interventions are performing as planned.

Background and Rationale

Surveillance is defined as “tracking and forecasting any health event or health determinant through the ongoing collection of data, the integration, analysis and interpretation of that data into surveillance products, and the dissemination of that resultant surveillance product to those who need to know.”

A robust surveillance system is an essential component of a chronic disease prevention and management strategy. Its purpose is to collect comparable and valid data, including time trends and geographical distribution to evaluate the burden of CVD and support planning and implementation of appropriate interventions. Moreover, a surveillance system will support the measurement of health outcomes and determine if such interventions are performing as planned.

At present, demographic, mortality, morbidity, risk factor prevalence, and related health care data are available. However, the existing data is limited by its lack of physical and biochemical measures of cardiovascular risk. Most provinces have not repeated the Canadian Heart Health Surveys conducted between 1985 and 1990, leaving a critical void in information about the detection and control of high blood pressure and dyslipidemia in Canada. The Champlain Sentinel CVD Surveillance Program will provide a platform, methodologies, and tools for the collection of physical and biochemical data, significantly enhancing the quality of surveillance data.

To develop effective interventions, data is also required on socio-economic and geographical differences and their effect on CVD outcomes. A desirable component of the Champlain CVD surveillance system is the ability to report mortality and morbidity data linked to individual and family level socio-economic characteristics, such as education, occupation, race, ethnicity and period of immigration. The Champlain Sentinel CVD Surveillance System will oversample high risk groups including individuals of lower socio-economic status, as well as aboriginal and certain ethnic populations to better inform strategy implementation over time.

Goals and Objectives

The goal of this initiative is to establish a robust surveillance system to monitor CVD risk factors and trends, which in turn will support program planning and performance management activities in the Champlain District.

The objectives are:

- To document the prevalence of CVD risk factors and behaviours in the Champlain District;
- To generate new knowledge about risk factor prevalence patterns in important population segments (i.e. children, adults, high risk groups), and to understand important associations between determinants of health;
- To identify high risk populations and support policy and program development for these groups;
- To assess the population health impact of the CCPN's programs and activities; and,
- To provide data to support national and international comparisons.

Planning & Implementation Activities

Seven key activities will be completed as part of this work plan to support the development of the Champlain Sentinel CVD Surveillance Program.

a) Establishment of the Technical and Methodological Team

The CCPN Expert Panel on Monitoring & Surveillance will be expanded to support the creation of the Champlain Sentinel CVD Surveillance Program. The methodological team will provide leadership and technical expertise to support the successful implementation of project activities. To meet this objective, the present team will be enhanced by the addition of a full time project manager, consulting statistician, and health economist. The team will meet regularly throughout of the course of the project and new partners will be integrated as appropriate.

b) Indicator Selection and Prioritization

A working group of the CCPN Monitoring & Surveillance Expert Panel has compiled a preliminary list of risk factor indicators and outcomes for sentinel surveillance. In an effort to integrate data systems and avoid overlap, the most appropriate data source for each indicator will be identified. Over the course of the project, indicators will be prioritized and assessment methodologies established.

c) Identification of Data Sources

Currently available data will be analyzed by collating various data collection sources, including Statistics Canada, CIHI, Public Health databases, and local databases. Identified indicators will be assessed to determine if: (1) there is an existing data source; (2) the data source is sufficient to meet the surveillance needs; and (3) this data can be meaningfully linked to the sentinel surveillance system. An info-structure for linking existing surveillance data will be developed. Areas where there are no data or where present data is insufficient will be identified for inclusion in the sentinel surveillance survey.

d) Establishment of Surveillance Survey Methodologies

This activity will establish the methods for a new population-based survey designed to prospectively collect data in areas identified as surveillance gaps. The survey will involve a minimum of two large surveys of residents living in the Champlain District. The methods team will review past studies (MONICA Project in Halifax; The INTERHEART study) to determine the best methodology to utilize to collect surveillance data. A statistician will be consulted to develop sampling and outcome methodology; including sample selection procedures (i.e. sample size, sample respondents and non-respondents, frequency of screening). We will also determine eligibility criteria for the sample (respondents and non-respondents), procedures for respondents and non-respondents, the analytical methodology, and the necessary infrastructure support. Additionally, we will examine what resources are present in the community to avoid duplication. By the end of Q3 2007, we plan to have finalized the sample size needed for the population survey as well as the methods for data collection.

e) Tool Development

Utilizing the selected priority indicators as well as the identified gaps noted in the areas of physiological and biochemical markers for risk factors, the sentinel surveillance survey instrumentation and data collection protocols will be developed.

f) Establishment of Surveillance Team & Pilot Testing

Through examination of past studies using cohort populations, it has been determined that a survey team responsible for conducting the survey and collecting the physical indicators (specifically, taking blood pressures and drawing blood samples) should be established. This approach has been suggested to be more cost effective than soliciting the services of an agency. A team will be created and a training protocol will be developed and delivered to support data collection. A pilot test will be implemented to assess the feasibility of the tool and methods under local conditions.

g) Implementation of Sentinel Surveillance Survey & Reporting

The survey tools and methodology will be used to implement a large population health survey in the Champlain District. The anticipated sample size for the survey will be 10,000 residents with over-sampling of high risk populations. A minimum of two surveys are planned over the 5-year strategy implementation. A Champlain CVD Prevention and Management Atlas will be published annually to support the dissemination of surveillance information.

Activities to Date

In 2006, the CCPN Expert Panel on Monitoring & Surveillance began planning activities for the establishment of a sentinel population cohort in the Champlain District to support CVD prevention, monitoring, and surveillance activities. To assist with the planning, key stakeholders and partners were invited to take part in a one day workshop on May 25, 2006, sponsored by the Public Health Agency of Canada (PHAC). Participants in this preliminary planning workshop included representatives from the CCPN and its partners, Statistics Canada, PHAC, the Institute for Clinical and Evaluative Sciences (ICES), the Institute of Population Health at the University of Ottawa, and Edmonton Capital Health Authority. A working group was established by the Panel to generate a list of risk factor indicators and prospective in its inception the CCPN identified the important role of surveillance and monitoring systems as outcomes.

Partners

- Public Health Agency of Canada
- City of Ottawa Public Health
- Eastern Ontario Health Unit
- Champlain Local Health Integration Network
- Department of Community Medicine & Epidemiology, University of Ottawa
- Institute of Population Health, University of Ottawa
- Cardiovascular Research Methods Unit, University of Ottawa Heart Institute
- Champlain Regional Stroke Program
- Institute for Clinical and Evaluative Sciences
- Edmonton Capital Health Authority, Alberta

Appendix 7: Champlain Healthy Living & Risk Factor Management Program

Priority Initiative Description

Ensuring individuals, families, communities, and health providers in the Champlain District are equipped with the necessary knowledge, skills, and resources required to prevent and manage CVD will be key to our ability to impact on the prevalence of chronic diseases and improve the health of Ontarians. This can be best achieved through a coordinated strategy to increase community capacity to effectively deliver health information, behaviour modification and self-management programs to Champlain residents.

The aim of the Champlain Healthy Living & Risk Factor Management Program is to empower individuals with the knowledge and skills required for healthy living, risk factor and disease management. This initiative will: (1) coordinate the development and delivery of a communications campaign to promote healthy living and risk factor self-management; (2) create a network of community based resources to support behaviour modification and self-management practices; and (3) create links to community providers and existing public and community health resources.

Background and Rationale

Individuals must be knowledgeable about health promotion and chronic disease prevention and have the skills and confidence to take responsibility for the management of their health. This can be best achieved through a coordinated strategy to increase community capacity to effectively deliver health information, behaviour modification and self-management programs to Champlain residents.

Effective communication, social marketing, and self-management practices are often underutilized within our health system. The CCPN has recognized the importance of developing an awareness and education strategy to promote healthy living and risk factor management amongst Champlain residents. This program will attempt to increase awareness among Champlain residents and providers of existing CVD prevention services through greater coordination of communications activities and will support the delivery of enhanced risk factor and self-management programs in communities across the Champlain District.

Goals & Objectives

The aim of the Champlain Healthy Living & Risk Factor Management Program is to empower individuals with the knowledge and skills required for healthy living, risk factor and disease management.

The objectives are:

- To coordinate the development and delivery of a communications campaign to promote healthy living and risk factor self-management;
- To create a network of community-based resources to support behaviour modification and self-management practices; and,
- To create links to community providers and existing public and community health resources.

Approach

The present strategy will adopt a population health approach which targets all residents of the Champlain District with healthy living and disease management support based on need. The three levels of support will include:

Level One – Health Communications Messages (targets all residence)

Level Two – Skills Development & Health Behaviour Change (targets residence with one or more risk factor)

Level Three – Disease Self-Management (targets residence with existing disease)

Planning & Implementation Activities

The Champlain Healthy Living & Risk Factor Management Program is presently being developed by an advisory committee. The committee is comprised of experts in communications and marketing, community capacity building, content, and service delivery. This committee will develop the detailed implementation plan for the establishment of a regional Healthy Living and Risk Factor Management Program. The implementation activities to support each of the program objectives are outlined here:

Objective 1: Coordinate the development and delivery of a communications campaign to promote healthy living and risk factor self-management.

Conduct Baseline Public Opinion Research

The purpose of this activity is to plan and implement formative public opinion research into target audiences to determine existing attitudes and barriers to change, effectiveness of messaging, and preferred means of communication. The research will include quantitative and/or qualitative measures.

Develop Key Messages and CVD Prevention Campaign

Regional stakeholders will help to develop key messages and a social marketing campaign to address healthy eating, physical activity, tobacco control, and CVD risk factor management. The campaign will identify priority audiences, tailored messages and delivery channels for specific market populations. The campaign will also identify relevant communications channels in the Champlain region, with particular emphasis on smaller communities and rural residents. These channels will be based on traditional media, but innovative communications channels will also be explored. In consultation with regional partners, a 5-year CVD and Healthy Living Communications program will be developed.

Deliver Coordinated Social Marketing Campaign Targeted at Increasing Healthy Living Behaviours

A regional social marketing campaign will be implemented to support physical activity, healthy eating, and smoking cessation among Champlain residents and support knowledge of personal risk factor levels for cholesterol and blood pressure. The social marketing campaign will employ a combination of mass media and community-based channels to deliver messages. The campaign will include targeted approaches to reach high risk populations within the Champlain District with a specific focus on communities identified as CVD hot spots within the Champlain District.

Objective 2: Create a network of community-based resources to support self-management and behaviour.

Create Network of Community-based Healthy Living and Self-management Programs

A regional network of healthy living and self-management programs will be established in communities across the Champlain District. The network will be modeled after the regional diabetes network and will use a combination of small group sessions and one-on-one counseling.

Objective 3: Create links to community providers and existing public and community health resources.

Create Centralized Chronic Disease Web and Telephone Resource

A regional web resource will be developed and launched. The web resource will provide information and education on self-management for those living with heart disease or stroke as well as serve as a regional resource for the general public and health partners on healthy living and behaviour change resources available in our community. A centralized 1-800 information line will be established to provide information on available services and respond to information requests from the public and providers.

Performance Management Plan

The Champlain Sentinel CVD Surveillance System will be used to collect population health data regarding knowledge and action being taken by residents to manage CVD risk factors.

Performance Indicators

- % of Champlain residents who know their blood pressure and can state whether it is normal or high
- % of Champlain residents who know their cholesterol levels and can state whether or not they are abnormal
- % of Champlain residents with hypertension who are taking action to help control their blood pressure
- % of Champlain residents with abnormal cholesterol levels who are taking action to improve cholesterol levels
- % of overweight or obese Champlain residents who are taking action to lose weight
- % of daily smokers in the Champlain region who make at least one assisted quit attempt this year

Partners

- Champlain Local Health Integration Network
- Eastern Ontario Community Primary Care Health Network
- City of Ottawa Public Health Unit
- Eastern Ontario Health Unit
- Renfrew County & District Health Unit
- Leeds, Grenville & Lanark District Health Unit
- Heart and Stroke Foundation of Ontario
- University of Ottawa Heart Institute
- Champlain Regional Stroke Program

Appendix 8. Champlain Healthy School-aged Children Initiative

“Investing in the Health of the Next Generation of Ontarians”

Priority Initiative Description

The Champlain Healthy School-aged Children Initiative aims to address childhood obesity by enabling children (ages 4 to 18) in the Champlain District to make healthy choices about nutrition and physical activity on a daily basis, and providing them with the skills to develop healthy food and activity behaviours for life. A multi-faceted approach will be adopted which targets school, home, and community environments and uses multiple intervention strategies including policy, social marketing, skills and knowledge training, and environmental supports to achieve its impact. The initiative will serve to mobilize and coordinate multiple stakeholders (public health, education, community, industry, primary and specialty care) committed to reducing the obesity epidemic in children and youth in the Champlain District. Together we will act to ensure the next generation of Ontarians is equipped with the skills, knowledge, and values required to prevent CVD and other chronic diseases.

Background and Rationale

Prevention efforts must begin in childhood if we are to effectively combat chronic disease in Ontario. Overweight and obesity is one of the biggest public health challenges facing Ontario today³⁰. Rates of overweight and obesity among children and youth in Ontario and Canada are reaching epidemic proportions²⁹. According to Statistics Canada, 27% of children aged 7 to 13 are overweight and 13% are obese²⁹. Rates of obesity and overweight in Canadian boys and girls have tripled over the last three decades. Moreover, the annual economic burden of obesity in Ontario is \$2.35 billion, representing 5.3% of the total provincial health care budget²⁹.

The primary cause of the rise in obesity is increased consumption of energy-dense, nutrient-poor foods combined with decreased levels of physical activity. Poor nutrition and lack of regular physical activity in children and youth are also linked to increased prevalence of CVD and other chronic disease risk factors in adults^{29,31}. Many socio-environmental factors are contributing to lower levels of physical activity and poor eating habits including: reduced physical education in the schools; increased television, computer, and video game use; urban sprawl; and increased access to high fat, high sugar, and high calorie foods.

The report from Ontario’s Chief Medical Officer of Health, *Healthy Weights, Healthy Lives*, calls for immediate action to combat the obesity epidemic in Ontario’s communities. The report was followed by the Ontario Ministry of Health Promotion’s *Action Plan on Healthy Eating and Active Living*^{29,32}.

Our Approach: Multi-sectoral Action Aimed at Shifting Social Norms

Childhood obesity is a complex issue that will not spontaneously resolve itself. A focus on lifestyle is essential to combat the obesity epidemic among children and reduce long-term risk factors for chronic illness, such as heart disease and cancer. Multi-faceted interventions that target students, school cafeterias, parents, and the community are more effective than interventions targeting one of these channels alone³⁵. It is necessary to engage school boards, government agencies, and the private sector to make the changes^{33,34}.

Promoting healthy eating and physical activity among our children is a priority of the CCPN. An inter-sectoral committee of representatives from public health, community health, specialty care, pediatric medicine, not-for-profit, and education sectors has been formed to develop a regionalized action plan for healthy weights in children and youth. The committee will develop a multi-faceted, region-wide strategy targeting schools, families (children and parents), and communities using multiple intervention channels including policy, social marketing, skills and knowledge training, and environmental supports to achieve its goals.

Goals and Objectives

The Champlain Healthy School-aged Children Initiative aims to address childhood obesity by enabling children (ages 4 to 18) in the Champlain District to make healthy choices about nutrition and physical activity on a daily basis, and providing them with the skills to develop healthy food and activity behaviours for life.

The objectives of the initiative are:

- To engage children and youth in more quality daily physical activity;
- To improve eating habits and encourage healthy food choices among school-aged children;
- To develop policies and strategies that lead to healthy environments for school-aged children – at home, at school, and in the community;
- To increase knowledge and skills among parents for supporting healthy eating and active living at home; and,
- To support training in the delivery of evidence-based physical activity and healthy eating programming amongst decision makers, educators, and health practitioners.

Framework for Action

The Champlain Healthy School-aged Children Initiative will have 4 core areas of action:

School Environments: To implement region-wide school policies targeting daily physical activity (both curriculum-based and after school) and healthy eating (cafeterias, vending machines, school lunches).

Classroom Action: To empower schools in the Champlain LHIN to create school action plans addressing physical activity and healthy eating in the school setting. These plans will: (a) enable children to receive the required physical activity during the school day in addition to increasing the opportunities for additional physical activities (classes, sport programs, recess activities, clubs, lessons, walking programs, 'walking school bus') to enjoy; and, (b) ensure that children have access to healthy food choices (hot lunches, snack programs, fundraising, etc).

Family & Community: To facilitate consistent, healthful messaging with parents that encourages positive role modeling around providing healthy eating and active living choices for their children. This includes messaging on appropriate grocery shopping choices, restaurant selection, as well as how to increase involvement in physical activity and minimize screen time. Communities will be encouraged to improve their policies around enhanced access to physical activity facilities and programs for children and youth.

Leadership Development & Capacity Building: To support training of policy makers, educators, and practitioners in evidence-based approaches to promoting healthy living in children in youth.

Program Planning & Implementation Activities

A phased approach will be adopted to support the delivery of action in each of the 4 core areas.

a) Creation of Multi-sectoral Leadership Team

A leadership team from key sectors has been mobilized to provide leadership to the Champlain Healthy School-aged Children Initiative. A series of consultation meetings will be used to expand the leadership team to ensure adequate regional representation from partners in the education, recreation, not-for-profit, private, and community sectors.

b) Environmental Scanning

Foundational research has been undertaken to gather baseline data and support implementation activities. Specifically, two activities are underway:

Attitudinal Research Study on Healthy Weights, Active Living & Healthy Eating

Parents play a pivotal role in shaping the development of child eating and activity habits. A large attitudinal survey will be conducted among parents of children aged 4 to 12 in a total of 1940 households in the Champlain District. The survey will gather information regarding parental attitudes, knowledge, and beliefs surrounding childhood overweight and obesity and their associated healthy eating and physical activity behaviours. Information gathered will be used to inform the development of a social marketing campaign for the Champlain region and will form the basis of a regional call to action to address healthy active living in Champlain children and youth.

Scan of School Health Promoting Policies

An environmental scan is being conducted to examine existing policies within the education sector of the Champlain District that have either a positive or negative impact on childhood overweight and obesity. The scan will encompass policies impacting physical activity and diet and shall be conducted from both a school board and individual school perspective. Structured interviews will be conducted with representatives from the Ministry of Education and each of the 9 boards across the Champlain District. A web-based survey of all schools within Champlain District will be conducted to examine local policy implementation and barriers. Findings from the local scan will be compared with best and promising practices provincially, nationally, and internationally to inform recommendations for action. The scan will result in a report that identifies strengths and areas for improvements in the area of school-based healthy weights policies.

c) Priority Setting

Champlain Healthy School-aged Children Summit

A summit will be held in summer 2007 with representatives from key stakeholder groups from across the Champlain District. The summit will be used to generate a commitment to a set of regional goals and targets that will form the basis of our multi-sectoral action plan to address obesity in children and youth. The summit will serve to complement the next phase of program implementation.

d) Action Plan Development & Implementation

Social Marketing Campaign

Based on information from the attitudinal research study, a social marketing campaign will be developed to increase awareness, knowledge, and skills for active living and healthy eating among families with school-aged children.

School Policy & Environments

A district-wide task force will create and implement region-wide school policies targeting daily physical activity (both curriculum-based and after school) and healthy eating (cafeterias, vending machines, school lunches).

Family & School-based Programming

A team will be mobilized to support schools across the Champlain District in the development of school-based action plans to “support healthy eating and active living everyday in every student”.

Leadership, Education & Training Program

A regional training program will be implemented to support skills training in daily physical activity and healthy eating for policy makers, principals, teachers, and peer leaders across the Champlain District.

Performance Management Plan

A regional report card will be used to track implementation activities, and behavioural and physical measures will be tracked in a representative cohort of schools and children/youth from the Champlain District.

Performance Indicators

- Number of schools with healthy school policy for cafeterias
- Number of schools with healthy school policy for vending machines
- Number of schools with daily physical activity programs
- Prevalence of children who are physically active (daily for 30 minutes)
- Prevalence of children with screen time hours > 3 per day
- Prevalence of children consuming > 5 fruits and vegetables per day
- Prevalence of children consuming fast foods more than 2/week
- Prevalence of overweight in school-aged children
- Prevalence of obesity in school-aged children

Partners

- Eastern Ontario Health Unit
- City of Ottawa Public Health Unit
- Leeds, Grenville & Lanark District Health Unit
- Renfrew County & District Health Unit
- Heart and Stroke Foundation of Ontario
- University of Ottawa Heart Institute
- Children's Hospital of Eastern Ontario
- Champlain Local Health Integration Network

Appendix 9: Profile of CCPN Leadership Team

Robert Bourdeau, MD, FRCS(C)

Dr. Bourdeau obtained his Bachelor (1960-1964) and Medical (1964-1968) degrees from the University of Ottawa. He is Fellow of the Royal College of Surgeons of Canada (1968-1973) and practiced orthopedic surgery until 1981. After working two years as a consultant for the Health and Safety Board of the province of Quebec, he returned to full-time studies and obtained a Master degree in Health Administration at the University of Ottawa (1985). In May 1985, he took the position of full-time Medical Officer of Health with the Eastern Ontario Health Unit which he held until January 2007. Dr. Bourdeau was a founding leader of the CCPN and served as a member of the CCPN Executive Committee.

Robert Cushman, MD

Dr. Cushman was appointed Chief Executive Officer of the Champlain Local Health Integration Network in August 2005. Dr. Cushman is a member of the CCPN Executive Committee and a co-founder of the CCPN. From 1996 to 2005, he held the position of Medical Officer of Health for the City of Ottawa, where he was instrumental in bringing in smoke-free legislation for workplaces and public places. Previously, he was Director of Public Health in Hull, Québec.

Dr. Cushman worked as a primary care physician in a variety of health-care settings, including the emergency room of the Children's Hospital of Eastern Ontario, the Somerset West Community Health Centre in Ottawa, and along the James and Hudson Bay coasts serving Cree and Inuit populations. He received the United Way of Ottawa's Volunteer of the Year Award in 2003, and Life Service Award by the City of Ottawa in September 2005.

Lyll Higginson, MD

Dr. Higginson is the Chair of the CCPN Expert Panel on Knowledge Translation and co-lead for the Champlain Primary Care CVD Prevention Network. His training includes internal medicine at McGill University and cardiology at Emory University and the University of California in San Diego. He was admitted as a fellow of the Royal College of Physicians in Internal Medicine in 1976 and in Cardiology in 1977. He is presently a full professor, Department of Medicine, University of Ottawa; Director of Cardiology at the University of Ottawa Heart Institute; and was Chair of the Division of Cardiology, University of Ottawa from 1996 to 2006. Dr. Higginson presently serves as the President of the Canadian Cardiovascular Society. His clinical interest is in the management of acute coronary syndromes and knowledge translation.

William Hogg, MD

Dr. William Hogg has a background as a family physician, scientist and professor. He is a Professor in the Department of Family Medicine, University of Ottawa; a Principal Scientist with the Institute for Population Health; an Affiliate Scientist at the Ottawa Health Research Institute; and the Director of Research for the Department of Family Medicine, University of Ottawa. Since 2003, Dr. Hogg has been Director of the C.T. Lamont Primary Health Care Research Centre, Ottawa, where a current project compares models of primary care delivery in Ontario. In 2001, Dr. Hogg won the Arthur Bond Scholarship for Innovative Health Systems Research funded by the Physicians' Services Incorporated Foundation.

His work to show that outreach facilitation can improve the delivery of preventive services and save the health care system money has already influenced five provinces to begin facilitation projects. His work with Dr. Ayub Akbari and colleagues led to an improved method of detecting renal failure in the primary care setting that promises to be the new standard. Dr. Hogg will co-lead the Champlain Primary Care CVD Prevention Network initiative.

He has served as President and Chairman of the Board of Directors of the Québec Chapter of the College of Family Physicians of Canada; as a member of the Board of Directors of the Ambulatory Sentinel Practice Network, an international research network based in Denver, Colorado; and as a member of the Board of Directors of the College of Family Physicians of Canada.

John Goldsmith

John Goldsmith is Co-chair of the CCPN Expert Panel on Communications & Marketing. Mr. Goldsmith has a 35-year history in communications and the arts. He has served in various capacities with the Secretary of State department (now Canadian Heritage); in the Minister and Deputy Minister's offices; with the National Arts Centre as Director of Communications; with the Canadian Consulate General in New York as Consul, Cultural Affairs; and with the Canada Council for the Arts, as Head of Communications, Deputy Director of Public Affairs, Research and Communications, and most recently as Director, Partnership, Networks and Arts Promotion.

Lloyd Koch

Mr. Lloyd Koch is a member of the CCPN Coordinating Committee and the former President & CEO of Pembroke Regional Hospital. He has over 25 years of senior hospital management and consulting experience. His career has spanned service in small rural, medium-sized, regional, and large teaching hospitals located in Hamilton, Wingham, and Thunder Bay in Ontario as well as Nairobi in Kenya and Kimpese in the Congo. He has served on numerous Ontario Hospital Association committees, as well as boards of community service organizations, colleges and church organizations. He holds a Masters of Health Administration from the University of Ottawa and is a Certified Health Executive member of the Canadian College of Health Services Executives. Prior to his retirement in September 2006, Mr. Koch and the rest of his staff celebrated the opening of a \$46 million expansion project at Pembroke Regional Hospital.

Randy Penney, MHA

Randy Penney is a member of the CCPN Executive Committee and is the President and Chief Executive Officer at the Renfrew Victoria Hospital in Renfrew and St. Francis Memorial Hospital in Barry's Bay, Ontario. He holds an Honours Bachelor of Arts Degree from the University of Toronto and a Master's in Health Administration Degree of the University of Ottawa. Randy has been a surveyor with the Canadian Council on Health Services Accreditation since 1992. He has served on numerous boards including Healthcare Insurance Reciprocal of Canada and HealthPro Procurement Services.

Andrew Pipe, CM, MD, LL.D. (Hon), D.Sc. (Hon)

Dr. Andrew Pipe presently serves as Chair of the CCPN and Medical Director of the University of Ottawa Heart Institute Minto Prevention and Rehabilitation Centre. He is also a Professor at the University of Ottawa, with appointments in the Department of Family Medicine and the Division of Cardiac Surgery.

Recognized as one of Canada's leading experts in CVD prevention, smoking cessation, and physical activity and health. Dr. Pipe has addressed audiences in over 20 nations and is frequently consulted on issues related to tobacco use and smoking cessation, drug use in sport, and physical activity and health. A former chairman of Physicians for a Smoke-Free Canada, Dr. Pipe is a Life Member of the Canadian Council on Smoking and Health. In 2002 he was named to the Order of Canada.

Robert Reid, MBA, Ph.D.

Dr. Reid presently serves as Chair of the CCPN Expert Panel on Priority Programs & Populations. Robert Reid obtained his BSc (Kinanthropology), MSc (Exercise Physiology), and MBA (Marketing) from the University of Ottawa, and his PhD (Health Studies) from the University of Waterloo. After completion of his doctoral studies in 1998, he was appointed an Assistant Professor in the Faculty of Medicine. He is currently the Senior Health Promotion Consultant at the University of Ottawa Heart Institute Minto Prevention and Rehabilitation Centre.

His research focuses on the development and evaluation of technology-enabled interventions for health behaviour change. Dr. Reid has received the New Investigator Award of the Heart and Stroke Foundation of Canada and the Young Scientist Award from the Canadian Cardiovascular Society. He is Program Director of the Heart and Stroke Foundation of Ontario's behavioural research initiative for promotion of physical activity in people with heart disease.

Pat Rich

Pat Rich is the Co-chair of the CCPN Expert Panel on Communications & Marketing. Pat is Director and Editor-in-Chief of Online Content for the Canadian Medical Association. He has been a medical editor and journalist for 25 years, including 18 years working for The Medical Post, a weekly newspaper for physicians.

Paul Roumeliotis, MD

Dr. Paul Roumeliotis is the newly appointed Medical Officer of Health for the Eastern Ontario Health Unit. Trained as a Pediatrician, Dr. Roumeliotis has several years of front-line medical experience as founder and former director of Montreal's Children's Hospital Asthma Centre and Pediatric Consultation Centre. Dr. Roumeliotis' expertise in health communications has earned him a reputation as a down-to-earth communicator who encourages parents to become active and informed participants in the care of their children's health and well-being.

David Salisbury, MD

David Salisbury is the Medical Officer of Health for Ottawa Public Health. Dr. Salisbury joined Ottawa Public Health in June 2004 from his former position as Deputy Chief of Staff, Force Health Protection, Canadian Forces Medical Group at NDHQ. He is Board certified in Aerospace Medicine by the American Board of Preventive Medicine and possesses a Royal College Fellowship in Community Medicine. Dr. Salisbury is a member of the CCPN Coordinating Committee.

Heather Sherrard, BScN, MHA

Heather Sherrard is Vice President of Clinical Services at the University of Ottawa Heart Institute and serves as lead for the Champlain Hospital CVD Prevention Network initiative. Heather obtained her BScN (Nursing) at the University of Saskatchewan and her Masters in Health Administration from the University of Ottawa. Heather has held a variety of clinical and administrative positions in the acute care hospital sector, most of which have been in the area of cardiovascular care.

She holds two joint appointments with the University of Ottawa, and she is actively involved in the education of Masters students in Nursing and Health Administration. She is a member of the editorial board of the Canadian Journal of Cardiovascular Nursing. She participates in a number of Ministry of Health Initiatives, including the implementation of Expert Coaching Teams across the province and the provincial wait times strategy. She also provides consulting services to other provinces in the area of cardiac health services.

Peggy Taillon, B.S.W., B.A. (Hons.) Law, DPA

Peggy Taillon is the Vice President, Advocacy, Community Engagement and Chief Privacy Officer at The Ottawa Hospital. She holds degrees in Social Work and Law and Certificates in Conflict Resolution and Public Administration.

Peggy has been an advocate and community developer for most of her professional career. She began her career over 21 years ago advocating for people with developmental and physical disabilities and people living with mental illness. Since then she has enjoyed many opportunities to employ her advocacy skills and creative planning approaches to encourage system-wide integration across a spectrum of human services.

George A. Wells, Ph.D.

Dr. Wells is a Professor in the Department of Epidemiology and Community Medicine and the Department of Medicine at the University of Ottawa. He is Director, Cardiovascular Research Methods Centre at the Ottawa Heart Institute Research Corporation of the University of Ottawa Heart Institute; Senior Investigator at the Ottawa Health Research Institute; and Chair of the College of Principal Investigators of the Institute of Population Health. Dr. Wells received an M.Sc. from McMaster University in mathematical statistics and a Ph.D. in Epidemiology and Biostatistics from the University of Western Ontario.

Dr. Wells' interests are in the design and analysis of multicentre clinical trials, statistical methodology related to disease processes and health care delivery, systematic reviews and meta-analysis, and the development and assessment of decision support technologies for patients and clinicians. He is the author or co-author of over 400 published articles and 600 scientific abstracts. He has been the principal investigator or co-investigator on over 150 research projects, with research funding exceeding \$50 million. He has made numerous national and international scientific presentations and is a member of several grant review committees and advisory boards.

Andreas Wielgosz, MD, Ph.D.

Dr. Andy Wielgosz is the Chair of the CCPN Expert Panel on Monitoring & Surveillance. Dr. Wielgosz trained as a cardiologist at the University of Ottawa Heart Institute, and then obtained a doctorate in epidemiology from the University of North Carolina. He holds the rank of Full Professor in the Departments of Medicine and of Community Medicine and Epidemiology at the University of Ottawa. Dr. Wielgosz works one day per week for the new Public Health Agency of Canada. He is a member of the Board of Directors of the World Heart Federation, and he serves as senior spokesperson and member of the Board of Directors of the Heart and Stroke Foundation of Canada. He is a staff cardiologist at The Ottawa Hospital – General Campus with consulting privileges at the Pembroke Regional Hospital.

Elinor Wilson, PhD, MHSc, RN

Dr. Elinor Wilson is the former Chair of the CCPN Expert Panel on Policy & Environment and a founding member of the CCPN. Dr. Wilson served as the Chief Executive Officer of the Ottawa-based Canadian Public Health Association (CPHA) until February 2007. CPHA is a national, independent, not-for-profit, voluntary association representing public health in Canada with links to the international public health community. Dr. Wilson has since been appointed as President of Assisted Human Reproduction Canada.

Prior to joining CPHA, Dr. Wilson served a five-year term as Chief Science Officer for the Heart and Stroke Foundation of Canada, where she was responsible for evaluating state-of-science across the foundations, and working with granting agencies, the academic research community and national/international liaisons.

Her background includes coalition building in the dissemination of research, programs and policy. This work focuses on tobacco, heart health, school health and preventive practices of health professionals. Working with policy and development in the area of women, heart disease and stroke, emergency cardiac care, tobacco control and surveillance, has been a particular focus in Canada, Latin America and internationally.

Dr. Wilson was a member of the Executive Committee on the Framework Convention on Tobacco Control, chairing the Canadian group. She was also the NGO representative for over two years on the Canadian delegation and represented the World Heart Federation in tobacco control. She is a member of the Ministerial Advisory Committee on Tobacco Control. Dr. Wilson is also involved as a member of the Institute for Population and Public Health Advisory Board; member of the Canadian Population Health Initiative Board; member of the Canadian Association for Health Services and Policy Research Board; Chair, Task Group Public Health Human Resources, Public Health Network Council; member of AllerGen Advisory Board, member of Obesity NCE Board; Past Vice-President of the World Heart Federation; and Past-President of the InterAmerican Heart Foundation.