Chronic Disease Prevention & Management

BUILDING THE VISION IN BRITISH COLUMBIA

March 2003

The Chronic Disease Management Initiative has grown over the past year due to the dedicated efforts of many individuals and organizations throughout British Columbia. This issue of our quarterly update pulls together contributions from a number of these groups, attempting to provide a broad view of the work being done in this area of health care. We wish to acknowledge these contributions and apologize to those whom we missed this time around.

Chronic Disease Prevention & Management

Working In Partnership to Reduce the Human and Financial Burden of Chronic Disease

Time to Take Action

Although 70% of all BC's health care dollars are currently being invested in chronic disease treatment, the return on this investment is poor. Outcomes for treatment of chronic diseases in BC fall well below what is documented as achievable by the consistent application of best practices. This is resulting in unnecessary morbidity, mortality, associated interventions and avoidable health care costs[1].

The demographic projections are clear. Unless interventions can be introduced that successfully reduce the incidence of these common chronic conditions, new cases of chronic disease will increase dramatically due to BC's aging population. For example, in ten years' time, the number of people with diabetes will have increased by 90%[2]. Kidney failure has already reached epidemic levels in most of the western countries – BC is already seeing an additional 3.5% yearly increase in the number of people requiring costly dialysis treatment[3]. Fortunately, as with chronic disease management, there is good evidence that selected interventions, when applied appropriately, can reduce this burden.

Although health care costs for people with diabetes totalled $700 million in 2000/01, 90,000 British Columbians with diabetes had not received adequate chronic care.

The Ministries of Health are developing a long-term provincial plan for ensuring a sustainable and affordable public health system that provides high-quality patient-centred care, and supports improved health and wellness for British Columbians. The Ministries' Strategic Change Initiative Division has been studying models of chronic disease management and prevention in relation to BC's health care system.

"Effective ways of managing and preventing chronic disease are intrinsic to ensuring a sustainable and affordable health care system", says Geoff Rowlands, Assistant Deputy Minister, Ministry of Health Planning.

The trend towards an unsustainable health care system can be reversed. Initiatives to enhance prevention activities and to improve the management of chronic diseases are priorities for the health system in BC.

"Work over the next few months will focus on articulating chronic disease management and prevention strategies within the Ministries' overall directional plan**".**

Working in Partnership:

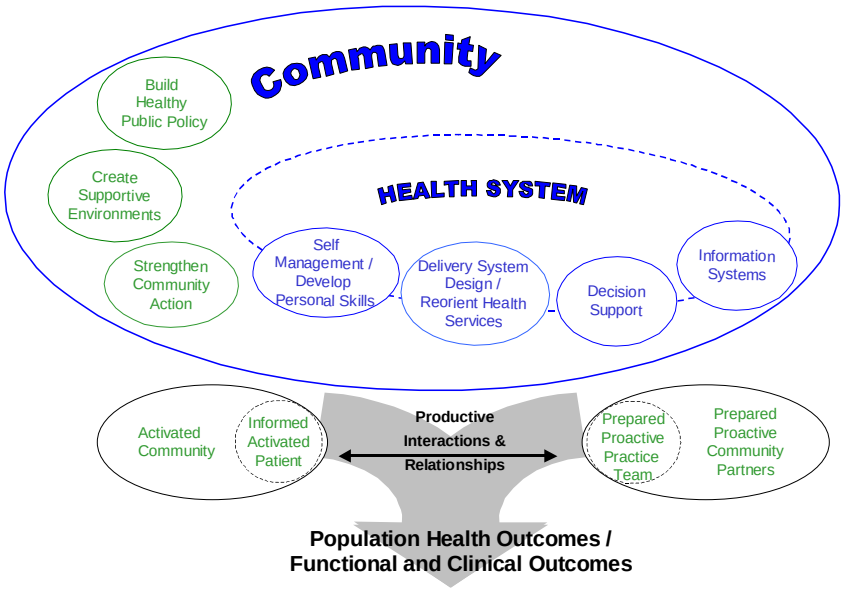
Setting the Direction For Re-Organizing Our Health Care System

BC's health care system was originally designed to deliver acute care and has served this function well. However, it does not support effective and efficient chronic disease prevention and management. The *Expanded Chronic Care Model* (Figure 1) was selected to guide the health care system because research has shown that reorganization improves the quality of patient care, produces good patient health outcomes and reduces overall system costs.

The model consists of many interrelated components, and their development and implementation in BC draws upon the collective knowledge, experience and work of many partners.

1 MOHS Utilization Management Branch statistics, 2002.
2 Responding to Diabetes. BC Ministries of Health Services and Health Planning, October 2002.
3 Schaubel et al. End-stage renal disease in Canada: Prevalence Projections to 2005. CMAJ 1999; 160(11):1557-63.

Figure 1: Expanded Chronic Care Model*



The importance of multi-sector involvement in a coordinated strategy highlights the need for a common model. A common model ensures alignment of activities and resources, and a common evaluation framework. It also provides a road map that takes away the guesswork in delivery model implementation.

Prevention: The first step in chronic disease management

It is important to note that the Expanded Chronic Care Model differs from the original Chronic Care Model for disease management and includes prevention and health promotion components. This reflects the view that the essential first step in management of chronic disease is to prevent it in the first place – or at least delay its onset.

James Marks, Director of the National Center for Chronic Disease Prevention and Health Promotion in the USA, notes in their new report *Promising Practices in Chronic Disease Prevention and Control* that "…most people, given a choice, would prefer never to get the disease even if it were 100% curable."

The Ministry of Health Planning recently identified the prevention of chronic diseases as a priority issue. The Ministry's Population Health and Wellness Section has planning and stewardship responsibilities for chronic disease prevention. Health promotion and chronic disease prevention programs, effective in reducing the burden of disease, disability and injury in BC and in improving the overall health and well-being of the people of BC, should be viewed as essential health services that are just as important as 'medically necessary' services.

* Created by: Victoria Barr, Sylvia Robinson, Brenda Marin-Link, Lisa Underhill, Anita Dotts & Darlene Ravensdale (2002). Adapted from Glasgow, R., Orleans, C., Wagner, E., Curry, S., Solberg, L. (2001). Does the Chronic Care Model also serve as a template for improving prevention? *The Milbank Quarterly*, *79*(4), and World Health Organization, Health and Welfare Canada and Canadian Public Health Association (1986) *Ottawa Charter of Health Promotion.*

Such programs contribute to the Minister of Health Planning's commitment to the people of BC that "we will have the best health-care system in Canada,"[4] and can help improve the health of the population while holding out the prospect of avoidance of direct and indirect health costs. The reduction in pain, suffering and premature death alone makes such programs a worthy investment.

The approach being developed in the Ministry of Health Planning is to prevent the development of chronic disease in the first place – what is known as primary prevention – and to detect such diseases early in their development – an aspect of secondary prevention. The model, which will guide the provincial chronic disease prevention initiative, identifies:

Principal risk factors and conditions that must be addressed in a comprehensive initiative. These include personal behaviors that occur in the context of social, economic, environmental and cultural circumstances and living and working conditions that shape behavior, as well as genetic, psychological and other biological factors that can contribute to, or protect against the development of chronic diseases.

Range of strategies that need to be employed in such an initiative to change these determinants. These include a set of 'primordial' prevention strategies drawn from the Ottawa Charter for Health Promotion, and the more clinical primary prevention strategies that can be drawn from the Canadian Task Force on Preventive Health Care. Once the disease is present, the clinical components of the chronic disease care model come in to play. At this point, the model components link up to chronic disease management.

'Life course' perspective that permeates the model and indicates that many of the determinants of chronic disease exert their influence from before birth – indeed from before conception – throughout life and into old age. Thus interventions, although often appropriately focused early in life, may need to be made throughout life, and indeed over several generations, in order to be effective. This approach also addresses a key issue in chronic disease prevention – namely, the inequality in the burden of disease borne by some segments of the population, an inequality that must be addressed and reduced in any provincial initiative.

4 Times Colonist (Victoria), Page A13, March 13th, 2002

Taking Action:

Building Capacity in People to Take Action on Health

When poorly managed, chronic diseases adversely impact all aspects of the person's life – from failing health and disruptions in the activities of daily living, to poor emotional and mental well-being. In addition to getting good medical care, people living with a chronic disease must become experts in their own care - knowing what medications to take and how, effectively managing their symptoms, handling difficult emotions (including fear and depression), eating properly and exercising regularly, and accessing and communicating with many different health care professionals.

Recent activities aimed at supporting patients to develop self-management skills include:

$900,000 from the Health Canada, Primary Health Care Transition Fund (PHCTF)

These funds, recently allocated to BC's Health Authorities, will support the implementation of the University of Victoria Centre on Aging, Chronic Disease Self-Management Program (CDSMP). This program has seen considerable success across BC. Over the next 3 years, CDSMP trainers will work with each of the health authorities to deliver patient self-management programs to several thousand people suffering from chronic diseases. For more information see: www.coag.uvic.ca/.

CDM Project Web site

This site provides information on chronic diseases, and direct links to resources to support patients and their families in making life-style changes important in managing chronic illness. These include the BC NurseLine, BC HealthGuide OnLine, BC's Dial-a-Dietician Program, Canada's Physical Activity Web site, Health Canada Go Smoke Free!, BC Smoker's Helpline, and Health Canada Healthy Heart Kit, 30 Second Asthma Test. See www.healthservices.gov.bc.ca/cdm.

The BC HealthGuide Program

This innovative program is available free to all BC residents. It includes the following four components:

BC HealthGuide is an easy-to-read handbook, delivered free to every household in BC, that provides basic guidelines on how to recognize and cope with more than 190 common health concerns, and is reliable health information based on sound medical advice from leading medical and consumer publi-cations. It was reviewed by BC physicians and other health care practitioners and has information to help people with chronic illnesses like arthritis, high blood pressure and diabetes. In addition, the handbook also helps people learn how to prevent illness, injury, or the worsening of a medical condition, as well as when it is safe to use home treatment and when to see a doctor or other health professional.

BC HealthGuide OnLine (www.bchealthguide.org/) is a comprehensive, easily accessed Internet site that links British Columbians to a world of reliable health information. The Web site contains over 2,500 topics on over 35,000 pages, including topics on a variety of chronic diseases and rare disorders. Readers will find tips and tools including "action sets" and "decision points" to help them cope with chronic illness, know when to see a health professional or to try a home treatment. BC -specific information is available, including current clinical practice guidelines, developed under the auspices of the Medical Services Commission Guidelines and Protocols Advisory Committee, and links to other reliable sites.

BC NurseLine is a 24/7, confidential toll free health information line for British Columbians to phone anytime of the day or night to have health questions and concerns addressed by specially trained registered nurses. The nurses help people know when and how to safely treat a problem at home and when to see a doctor, or go to the emergency room. The nurses use a comprehensive knowledge base and their experience to provide accurate health information and advice to help people confidently manage their symptoms or chronic illness. Referrals to other services are offered, like Dial-A-Dietician and community programs like the BC Diabetes Education Centres and the University of Victoria's Chronic Disease Self-Management Program through the Centre on Aging.

In June 2003, nurses will be able to link callers to the BC NurseLine's pharmacist services for after-hours information and advice for complex medication-related questions and concerns. The NurseLine is available in over 130 languages.

- Within BC (toll free) 1-866-215-4700
- Greater Vancouver 604-215-4700
- Deaf/hearing impaired (toll free) 1-866-889-4700

Soon, brochures will be distributed on how BC HealthGuide resources can support people who have asthma or diabetes. About 100,000 copies of each brochure will be available from the Ministry of Health Planning later this spring.

BC HealthFiles are a series of 120, easy to read, one-page fact sheets about public and environmental health and safety issues in BC. They provide information about flu vaccinations for seniors and those living with chronic illness. Also included is information on hearing loss in adults, how seniors can prevent falls, and numerous safety and health tips. The BC HealthFiles are regularly updated to include the latest BC health advice. They are provided to all provincial health units and other offices throughout BC. To access the BC HealthFiles: www.bchealthguide.org/healthfiles.

To receive a free copy of the BC HealthGuide, call the Ministry of Health Information line at 1-800-465-4911.

For questions or comments about the BC HealthGuide Program, contact: Lori Halls, Director, Innovation and Sustainability, Ministry of Health Planning
2nd Floor – 1520 Blanshard St.
Victoria BC V8W 3C8
Phone: (250) 952-3207
Fax: (250) 952-1570.

In the Spring 2003, nurses at the BC NurseLine will be offering callers with diabetes the opportunity to develop a self care plan as a tool to help clinically monitor and manage their diabetes in partnership with their physicians and other health care providers. The “Health E-Plan” has been developed in partnership with WebMed Technology and Dr. Jonathon Burns, Chief of Emergency Medicine at MSA Hospital . It will also be available online in Spring 2003 at www.bchealthguide.org.

Phase 2 of the provincial depression and anxiety disorders strategies is currently underway through the Ministries' Mental Health and Addictions branch. The Canadian Mental Health Association - BC Division and the Anxiety Disorders Association of BC are developing depression and anxiety disorder self-management tools to ensure persons with depression and/or anxiety disorders have access to timely and useful information on how to successfully manage their illness. These self-management tools will be linked with the development and implementation of clinical practice guidelines for physicians to ensure a coordinated approach to the treatment and ongoing care of people with depression and anxiety disorders.

Taking Action: Building Healthier Communities

A surprisingly small number of risk factors are aetiologically implicated in the development of the majority of chronic diseases (e.g. smoking, unhealthy diet, physical inactivity, and obesity). It is also known that these risk factors are associated with a specific set of risk conditions (some determinants of health are: income, education, social support, and work and physical environments).

The Ministry of Health Planning Population Health and Wellness Section will address the prevention of chronic disease through core programs in public health, and development of a set of province-wide population health improvement and disease and injury prevention initiatives.

Chronic disease prevention and management consist of activities and strategies to reduce the burden of chronic disease in order to fulfil the Ministries of Health goals:

- **To guide and enhance the province's health services in order to ensure British Columbians are supported in their efforts to maintain and improve their health**
- **Improved health and wellness for British Columbians**
- **A sustainable and affordable health care system.**

In February 2003, the Ministry's Population Health and Wellness Section completed *A Framework for a Provincial Chronic Disease Prevention Initiative*, and established a provincial Chronic Disease Prevention Alliance, in association with the Chronic Disease Prevention Alliance of Canada.

The Alliance involves key provincial organizations, the Provincial Health Officer, and the Ministry of Health Planning, and its goals are to:

- Enhance collaboration among government, non-government and private sector organizations;
- Advocate for health promoting policies, environments, programs and services; and
- Increase the capacity of communities to create and sustain health promoting policies, programs, environments, and services.

These goals support the effort of chronic disease management initiatives through health policies and programs that help increase physical activity, improve dietary habits, stop obesity, and encourage smoke-free living. They also benefit people with chronic diseases as these lifestyle changes are fundamental to keeping symptoms under control and improving overall quality of life.

The chronic disease prevention work will build upon the Population Health and Wellness Section's past successes, which include Action Schools, Healthy Heart, and the Tobacco Reduction Strategy. In addition, the results of the *BC Nutrition Survey* are now available, and will provide valuable insight into food consumption, body weight, physical activity and food security in BC. This evidence will support public health policy makers and program planners support improved nutrition practices of British Columbians.

Over the next few months, Population Health and Wellness will be developing a report on the evidence for best practices in chronic disease prevention to support prevention planning in the ministries, and with the health authorities and non-governmental organizations.

Taking Action: Building System Capacity

The Chronic Care Model identifies tools such as business cases, clinical guidelines, use of patient register information, and training/professional development as fundamental to re-aligning funding and service delivery to support chronic disease prevention and management. Development of these tools in BC has involved many partners including the Ministries, Health Authorities, health care professional organizations, non-governmental agencies, and private industry. The following provide an update on some of the activities underway in early 2003.

Decision Support

The Ministry of Health Services Mental Health and Addictions branch reports that on October 31, 2002, the Premier announced *British Columbia's Provincial Depression Strategy* and *A Provincial Anxiety Disorders Strategy* at the Bottom Line Conference in Vancouver. Depressive illnesses are common, with depression being the second leading cause of overall burden of disease worldwide.

The Provincial Depression Strategy – Phase One Report calls for improved awareness, early intervention, a collaborative care approach, a stepped care approach that matches the needs to the resources, and a chronic disease management approach, including self-management tools.[5]

Anxiety disorders are the most prevalent class of mental illness, affecting approximately one in every 10 adults, yet the chronic and disabling nature of these conditions is seriously underestimated. The Provincial Anxiety Disorder Strategy aims to achieve four goals: improved awareness; improved access to information and service; improved appropriateness of care; and improved outcomes for people with anxiety disorders.[6] The BC Depression Strategy and Anxiety Disorders Strategy are available at www.healthservices.gov.bc.ca/mhd/

The Phase 2 of the provincial depression strategy and the anxiety disorders strategy is currently underway through the Ministries' Mental Health and Addictions branch. The strategies include a range of chronic disease management activities:

"Chronic kidney disease identification and development of collaborative strategies will improve care delivery opportunities and patient outcomes. Importantly it will also support medical research that advances understanding the course of this disease and its treatment. By observing patterns and determining progression and effective implementation strategies, the nephrology community, as a whole, hopes to improve understanding of this prevalent disease".

Dr. Adeera Levin,Director
BC Renal Agency

- The UBC Mental Health Evaluation and Community Consultation Unit (MHECCU) is developing a depression and anxiety disorders management business case in order to improve the effectiveness of treatment for people living with these disorders. These business cases will examine the burden of disease, the scope of the problem in BC, early intervention approaches, potential for effective management approaches of depression and anxiety disorders, and next steps.
- To support physicians, clinical practice guidelines on depression are under development. The draft guidelines will be submitted to the Guidelines and Protocols Advisory Committee (GPAC) for external review this spring. In addition, GPAC will be asked to develop clinical practice guidelines on anxiety disorders. Patient self-management tools will be linked with the implementation of these guidelines.
- Ministry staff and MHECCU are currently developing a case definition for the Depression Register which will provide information on persons with depression accessing care, gaps in service, and effectiveness of clinical practice guidelines for depression. The register will also assist Health Authorities in establishing realistic performance measures on the effectiveness of treatment of people with depression. The MHECCU will be assisting in preparing Annual Report Cards for Depression and Anxiety Disorders, which will provide information on the number of people with depression and anxiety disorders, the burden of disease, evidence-based practices and comparisons.

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5 BC Ministry of Health Planning, *The Picture of Health – How are we modernizing British Columbia's health care system*. (December 2002) Victoria: BC.

6 Ibid

Early 2003 also saw considerable collaborative efforts focused on improving the management of Chronic Kidney Disease (CKD). Canadian and international medical research indicates significant care gaps:

- high-risk groups (especially those with diabetes, hypertension and cardiovascular disease) are not being screened and opportunities to treat the disease at its early stages are being missed;
- blood pressure lowering ACE inhibitors that slow renal function decline are not being prescribed;
- uremic complications are not being detected and treated; and
- CKD patients are receiving referrals to nephrologists too late in the course of their disease to slow its progression and improve overall outcomes.

CKD management can be readily implemented at the primary care level, and family physicians play an important role in the coordination of care. A CKD clinical guideline is under development by the MSC Guidelines and Protocols Advisory Committee to assist practitioners to close the performance gap. A CKD Guidelines Working Group was established and had its first meeting in March. Funding for this and all other chronic disease guidelines developed between April 2003 and March 2006 will come from a funding allocation from Health Canada's PHCTF.

Under-diagnosis and under-treatment of CKD is in part due to the inaccuracy of serum creatinine, which is misleading if used alone to assess kidney function. The 2002 Kidney Disease Outcomes Quality Initiative (KDOQI) guidelines recommend that laboratories report both calculated GFR and serum creatinine.

In response, the BC Renal Agency and the Ministry are working collaboratively with both private and public laboratories to implement the KDOQI recommendations. The CKD Working group will develop interpretive notes for laboratory reports which link calculated GFR to the stage of CKD and recommendations for best practice. Future work includes developing a standardization strategy for calibrating serum creatinine to international standards, and an education intervention to assist practitioners to understand the value of estimated GFR in relation to CKD clinical guideline.

Identifying and treating patients at the early stages of CKD is critical to reducing the burden of this disease, and the BC Renal Agency and the Ministries' Utilization Management branch and the Business Planning, Surveillance and Epidemiology branch are working towards developing a mechanism by which to identify and track patients at all stages of CKD.

Population surveillance strategies as well as prevention initiatives will be supported by these mechanisms, which may include anonymous registration of patients with abnormal values, irrespective of location of care.

A CKD business case is currently under development, and the first draft was reviewed in January 2003 by the CKD Working Group (with representation of BC Renal Agency, BC Health Authorities, BC public and private diagnostic laboratories, BCMA/Joint Utilization Committee, MSC Guidelines and Protocols Committee, Canadian Kidney Foundation and private industry).

Patient Registers and Information Technology

Patient register development activities have been a collaborative effort of the Ministries' Utilization Management branch and the Business Planning, Surveillance and Epidemiology branch. Early 2003 welcomed new collaborative efforts, including the Ministries' Patient Specific Records branch and MHECCU (Depression Register development), and the Vancouver-based Arthritis Research Centre of Canada (re: Arthritis Registry development).

The patient registers provide valid and reliable population health and surveillance information, monitoring the status of selected chronic diseases and their determinants, as well as the effectiveness of interventions. Patient registers are also the source of accurate information for chronic disease management i.e., current chronic care utilization costs, performance gaps, and tracking changes in performance and patient health outcomes. Asthma, arthritis and co-morbidity patient registers are currently under-development with the help of financial support made available through a funding allocation from the Health Canada, PHCTF.

Patient register capability is being expanded to support physician self-audit practices and practice self-improvement in managing chronic diseases. Using a secure Web site, BC physicians can now obtain information on the number and proportion of their patients with diabetes who received care according to clinical guideline recommendations. This physician self-audit tool has been proven very successful in both the US and UK. Other disease information will be added in the near future.

Using the diabetes patient register, the top 89 BC family physicians providing optimal diabetes care were identified and received certificates of achievement from the Medical Services Commission. The physicians were also asked to complete a survey to identify their diabetes care best practices, the results of which will be available to other physicians in the province through the Ministries' CDM Web site and the MSP Physicians' Newsletter.

Through a funding allocation from the federal PHCTF, and in collaboration with the Ministries' Information Management Group, options are being explored on how to expand patient register capability to support health authorities evaluate and modify their CDM initiatives.

Inter-Provincial IT Collaboration

As part of a Western Health Information Collaborative (WHIC), the four western provinces of BC, Alberta, Saskatchewan and Manitoba have submitted a joint proposal to the Health Canada PHCTF (30% multi-jurisdictional component) to develop a *Chronic Disease Management Infostructure.* This includes development of chronic disease data standards (i.e., minimum data sets, information interchange messages and related data definitions), and the capacity to share this data in support of clinical decision making for the primary health care team. It will also include system solutions that integrate this data with existing clinical decision support tools and within existing care delivery models. In addition, it will include the processes necessary to implement this system and ensure its ongoing use within the primary health care teams.

Taking Action: Reorienting Health Services

The mandate for service delivery rests with BC's Health Authorities. The following provides an update on how they are implementing the expanded chronic care model.

Fraser Health Authority

The Fraser Health Authority is embarking on a coordinated and comprehensive system-wide approach to chronic disease management with the assistance of a funding allocation from the Health Canada PHCTF and AstraZeneca. Specifically, the Chronic Care Model will be used to ensure a system that uses evidence-based standards of care, significantly engages patients to be more actively involved in managing their own care, and ultimately assesses health care system performance through outcome measurement and reporting.

Over the next three years, the Fraser Health Authority will initially focus efforts on the management of congestive heart failure and diabetes with future efforts being directed to chronic kidney disease, depression and asthma. The Fraser Health Authority is taking a staged approach to CDM initiative implementation, starting in May 2003 with participation in a 12-month congestive heart failure collaborative.

The Fraser Health Authority's goal is to assess what was learned, the processes established, and then apply what worked best to advance best practices in the other chronic disease areas.

"We feel that knowledge transfer activities are intrinsic to building an evidence-based, sustainable approach to chronic disease management", says Laurie Gould, Director of Heart Health & Primary Care Initiatives.

Family physicians and other health care professionals from the Fraser Health region have agreed to participate in the congestive heart failure collaborative, but room for other practitioners is still available.

The Fraser Health Authority's goal is to create a culture of change, and the infrastructure needed to support this change. The Fraser Health Authority will work with the University of Victoria Centre on Aging Chronic Disease Self-Management Program to support congestive heart failure patient self-management. With respect to diabetes management, a centralized shared care network with diabetes educator and nutritionist outreach to primary care practices is being considered. A shared care model for depression is also being explored, with psychiatrist and mental health worker outreach to primary care.

The Healthy Heart Society is sponsoring the congestive heart failure collaborative. The collaborative will have a primary care focus, bringing together physician-led multidisciplinary teams for 15 months of intensive learning from experts, and from one another. The teams will attend three highly interactive learning sessions (the first one taking place May 26-27) to become skilled at the elements of good chronic disease management for congestive heart failure patients, and methods for implementing and testing the changes in clinical practice. After each learning session, a 3-month action period follows in which the teams implement changes, and report their process and progress. During this time, teams are supported through conference calls and emails with the experts and fellow learners. The Institute for Health Improvement's (IHI) Model for Improvement is being adapted for use in the BC context. This model has shown impressive results in other jurisdictions. (see www.ihi.org.collaboratives).

For more information on the Healthy Heart Society sponsored congestive heart failure collaborative, contact Liza Kallstrom at 604-742-1772 or lkallstrom@healthyheart.bc.ca)

Northern Health Authority

The Northern Health Authority is developing a congestive heart failure management initiative with funding from the Health Canada PHCTF and AstraZeneca. The initiative will see a staged implementation of the Expanded Chronic Care Model starting in the North West communities of Terrace and Kitimat. Patients, physicians and a multidisciplinary team that includes a registered nutritionist and home care nurse will work collaboratively to improve health outcomes by incorporating decision support through evidence-based guidelines, practice re-design and use of information systems for effective patient tracking and follow-up, and over the longer term shifting the health care delivery system so that work optimally supports the prevention and management of chronic diseases.

Prevention of cardiovascular disease within a larger community focus figures prominently in this initiative's implementation plan. Health Fairs in Terrace and Kitimat showcasing heart disease prevention, smoking cessation, nutrition have been well-received in the community. The CHF initiative will build upon prevention activities that are currently supported by local health units (e.g., Healthy Eating, Active Living, Healthy Heart Kits distribution in the community and to family physicians, Heart & Stroke Foundation's Heart to Heart self-help education program, Healthy Hearts Kids program), and also focus on creating public policy and supportive environments important for the heart health and which speaks to the underlying determinants of health.

"The community has a role both in prevention and follow-up of patients with CHF", says Cathy Ulrich, Vice President of Clinical Services/Chief Nursing Officer. "Identification of the community's population based needs must be inclusive."

The Northern Health Authority plans to build patient self-management capacity through implementing the University of Victoria Centre on Aging, Chronic Disease Self-Management Program in various northern communities. It will also orient and encourage patients to use the BC NurseLine program as a self-management resource.

The initiative partners are also looking forward to participating in the congestive heart failure collaborative sponsored by the Healthy Heart Society. "It is important to understand the research, and how to use this knowledge in re-designing practice," says Cathy Ulrich.

Measuring changes in health care system performance and patient outcomes is fundamental to reducing the burden of chronic disease – identification of meaningful indicator data is a task being undertaken for each chronic disease initiative. While still evolving, a minimum data set has been developed to measure changes in performance and patient CHF health outcomes. This work has been conducted in collaboration with Health Authorities, Ministries staff, medical experts in CHF care and treatment, and research and evaluation experts.

The Northern Health Authority has also entered into a three-year partnership with the Healthy Heart Society to build community capacity in Chronic Disease Prevention and Management in several communities across the region. Multidisciplinary teams including physicians, nurses, nutritionists and others are working together in the Queen Charlotte Islands (Haida Gwaii), Prince Rupert, Smithers, and Quesnel. Other communities from the Northeast and Northern Interior are planning to become involved over the next two years. These communities will be increasing their understanding of chronic disease management and incorporating these approaches into their systems of service delivery. The initial focus of work in these communities is on diabetes and heart disease.

"There is a strong First Nations representation in the population that also has a high diabetes and CHF rate – First Nations people must be involved in developing inclusive, appropriate, and sustained access to services."

Cathy Ulrich, Chief Nursing Officer
Vice President, Clinical Services
Northern Health Authority

Additionally, funding has been received from the Healthy Heart Society and Health Canada to expand the Nicotine Intervention Counselling Centre (NICC) program. This program addresses tobacco addiction by training and certifying NHA health care providers who voluntarily incorporate the program into their existing role. The NICC model includes counselling regarding tobacco addictions, arranging for appropriate pharmacotherapy, and providing a starter kit of nicotine replacement. NICC program assistants provide follow up for a year following the initial counselling session for the prevention of relapses.

Support groups are also established whenever possible. NICC targets patients most responsive to quitting, i.e. cardiac patients, although word-of-mouth among the general public is growing quickly. To date, 35 counsellors have been trained and over 600 clients have been counselled. Quit rates at one year exceed 30%.

Vancouver Island Health Authority

"The Vancouver Island Health Authority (VIHA) has a strong commitment to chronic disease management", notes Marilyn Rook, Executive Vice President & Chief Operating Officer. "The Expanded Chronic Care Model will be at the foundation of a new and sustainable delivery system that will improve the process of care for people living with chronic diseases."

VIHA believes community consultation to be an integral first step in re-designing health care service delivery to better support good chronic disease management. Such consultations identified the implementation of the Expanded Chronic Care Model within an integrated primary care network as the optimal approach for improving patient health status in the South Island region.

Funding from the Health Canada PHCTF is being used to implement projects aimed at reducing the burden of chronic disease on Vancouver Island. This also includes VIHA collaboration with the Provincial Health Services Authority that will see the implementation of a health authority-wide chronic kidney disease management initiative.

Approximately 25 family physicians will be working in their current practice location with a clinical focus on three chronic diseases, starting with diabetes. The physicians will share responsibility for chronic care delivery by working as part of an interdisciplinary team (e.g., chronic disease management nurses), and through formal and informal linkages with specialists and community-based services and resources.

It is expected that between 2,000-3,000 chronic disease patients will benefit from the integrated network. Decision support will include use of patient register information, clinical guidelines, and care maps.

In collaboration with the Ministries, and with the financial support of the federal PHCTF, VIHA is exploring the development and implementation of an internet-based information system that enables electronic summary of patient chronic disease data information, and information-sharing between practitioners. Practitioners will also be supported through capacity building opportunities.

"VIHA has a broad commitment to participate in IHI quality improvement collaboratives", notes Marilyn Rook. VIHA plans to help improve patient self-management capacity through the University of Victoria Centre on Aging, Chronic Disease Self-Management Program.

The mid Island will also see the establishment of a chronic disease network as part of a Community Health Centre, with a focus on diabetes and hepatitis C management. Over the next few months, VIHA will be conducting community consultations to identify approaches that ensure the entire Vancouver Island region benefits from optimal chronic disease management.

Interior Health Authority

The Interior Health Authority (IHA) has a long-standing commitment to improving the health and well-being of people living with chronic disease. Chronic disease management has been an integral component of several primary health care projects that have been implemented in the Interior health region over that past several years. In addition, the IHA has supported people in taking action in managing their health through such programs as the Diabetes Education Centres, chronic lung disease/ asthma programs, and Heart Health Programs.

The IHA recognizes the importance of the University of Victoria Centre on Aging Chronic Disease Self-Management Program in supporting patients develop the self-efficacy skills they need to better manage their health and improve their quality of life. In conjunction with community organizations, this program is available to residents of the IHA with further expansion to other communities.

In November 2002, the IHA sponsored a major population health conference with one of the key themes being reducing the burden of chronic disease.

For example, information derived through patient registers is fundamental to assessing the health of the population – measuring performance against clinical guideline recommendations will help close performance gaps and meet set targets for improving the health of the community, notes Dr. James Lu, Senior Medical Health Officer.

The Chronic Care Model represents a significant shift in paradigm for health care professionals. IHA recognizes the need to invest in resources to support practice changes that will be required of our staff.

The IHA has identified improved management of cardiovascular disease and congestive heart failure to be priorities. Over the course of this year, the Healthy Heart program in Penticton, will be one of the participants in the CHF collaborative being sponsored by the Healthy Heart Society of BC. The IHA recognizes that collaboration among primary care physicians, public health, and continuing and acute care is required to align services to provide optimal disease management.

"Chronic disease management involves the entire continuum of the health care system, and primary care physicians are essential to helping patient keep their condition under control", notes Dr. Lu.

> **"A population health approach is at the foundation of the IHA's work. This approach aims to reduce the need for health care in the future by keeping people healthy."**
>
> **Dr. James Lu**
> **Senior Medical Health Officer**
> **Interior Health Authority**

The IHA is committed to organizing the health care delivery so that it best supports both chronic disease prevention and management. Interior Health recognizes the synergistic potential between chronic disease management and primary health care.

Vancouver Coastal Health Authority

The Vancouver Coastal Health Authority recognizes the strategic importance of chronic disease management and it is a key aspect of the health authorities re-design plans, notes Alex Berland, Primary Health Care Leader. "It is pivotal to improving overall health outcomes and reducing pressure on the acute care system."

The approach being taken is to embed chronic disease management within new primary health care practice models that focus on addressing the complex health needs of chronic care patients. These practice models will, for example, use patient register information to guide patient care, have an emphasis on patient education, and include scheduling of group sessions.

The health authority recently issued a Call for Proposals on new practice models and improving health outcomes – selected projects will be supported through funding made available from the Health Canada PHCTF.

Over 100 submissions were received. Some propose a shared care approach to chronic care involving primary care physicians and specialists. Other submissions propose re-designing current service delivery in order to expand chronic care provision to a larger number of patients, including better access to patient self-management education. As well, considerable interest has been expressed in improving mental health outcomes.

The next step will be selecting a group of projects from the 100-plus submissions to develop a detailed proposal. "We do not want to take on too much", notes Alex Berland. "We want to take an incremental approach – do a good job with this first wave of projects and then expand from there." The health authority notes that a great deal of information already exists on good chronic care delivery, and will use this knowledge to invest in the types of education, staff development, and infrastructure changes that have been proven to result in better health outcomes.

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