

## **BUILDING THE VISION IN BRITISH COLUMBIA AN UPDATE FROM THE MINISTRIES OF HEALTH**

**December 2002**

Chronic Disease Management in British Columbia is a government-supported initiative that involves the collaborative efforts of many medical and health care professionals, researchers and organizations across all sectors of the health care system. Rather than a specific program under the ownership or sponsorship of any one authority, it is a vision embraced by any number of individuals, groups, organization, and jurisdictions who share the desire to transform our health care system into one characterized by improved health status, better clinical outcomes, improved cost-efficiency and greater satisfaction for individuals, health care providers, and their communities.

Chronic Disease Management in British Columbia draws upon the collective experience and knowledge of:

- Patient partners
- Vancouver Island Health Authority
- Vancouver Coastal Health Authority
- Northern Health Authority
- Interior Health Authority
- Fraser Health Authority
- Provincial Health Services Authority
- BC Renal Agency
- British Columbia Medical Association
- Registered Nurses Association of British Columbia
- College of Family Physicians
- College of Pharmacists of British Columbia
- Society of General Practitioners
- Healthy Heart Society
- Arthritis Society
- Canadian Diabetes Association
- BC Lung Association
- Arthritis Association
- Heart and Stroke Foundation of BC
- Private diagnostic laboratories
- National Diabetes Strategy Group
- University of British Columbia
- University of Victoria
- Health Canada
- Pharmaceutical Industry (please see last page for a listing of our partners)
- Ministries of Health

This focus builds on:

- Government priorities
- Provincial strategies
- Priorities identified across the province

The Ministries of Health have worked collaboratively with BCMA, health authorities, the not-for-profit sector, MSP beneficiaries, and the pharmaceutical industry to develop a provincial infrastructure for the implementation of chronic disease management. These projects are:

## **1. Implementation of Chronic Disease Management (CDM) Initiatives**

Several health authorities indicated they required clarification with the planning aspects of chronic disease management – especially how CDM fits with the Health Canada Primary Health Care Transition Fund plan and other regional planning activities. In response, we investigated and shared information on best planning tools to help health authorities with this activity. Currently, CDM planning groups are in place in each Health Authority.

To date, the Vancouver Island Health Authority has completed their implementation plan for a Diabetes Initiative. The Fraser and Northern Health Authorities are currently in the process of developing an implementation plan for their respective Congestive Heart Failure initiatives, supported by AstraZeneca. In response to their request, we are providing consultation on implementation plan development, including integration of program evaluation and data collection capacity as part of program operational structure.

## **2. Knowledge Development**

Over the past several months BC Health Authorities have identified knowledge development and capacity building in CDM as a priority. In response, we first developed an information document on continuous quality improvement (CQI) structured collaboratives, and then held a teleconference with Health Authority stakeholders to explore how structured collaboratives could be implemented within the BC context. This initial discussion indicated considerable interest in embarking on CQU collaboratives; health authority representatives highlighted the need for the collaboratives to be sustainable, designed so that capacity is built at the local level, and both provincial and regional collaboratives should be considered.

In follow-up to the teleconference, Health Authorities and Medical and Pharmaceutical Services are working together to make change happen. Whereas, there are practitioners in various regions who have been involved in continuous quality improvement initiatives, we as a health system are relatively unprepared to translate knowledge into action. We have been conducting consultations with each Health Authority to discuss their needs re: embarking on an quality improvement process– with specific focus on determining what they want to do, the level of capacity (i.e., a readiness review), and what can be done at the provincial level to support this. This consultation is being conducted in collaboration with partners from across the health care community.

Other knowledge development work in the past two months has included:

- Provincial diabetes management resources were tabled at the Minister of Health Planning's ***BC Dialogue on Diabetes*** at CDA's National Conference on October 4, 2002. Resources tabled included the Diabetes Business Case (funded in part by Novartis Pharmaceuticals Canada), Diabetes Care Guideline and Patient Flowchart, and Snapshot on Diabetes Care in BC. These resources are available at <http://www.healthservices.gov.bc.ca/cdm>. The Vancouver Island Health Authority tabled their implementation plan for a Diabetes Initiative.

The Ministry of Health Services is hosting a follow-up meeting of Health Authorities, CDA and clinical leaders to identify the next steps for improving diabetes management in BC in January 2003.

- In partnership with the Healthy Heart Foundation and AstraZeneca, we held a November 1, 2002 BC Congestive Heart Failure Collaborative. Physicians, nurses, health authority administrators, private partners, and other health service professionals from across the province participated in this very successful process aimed at catalyzing action across the health care system to improve the management of congestive heart failure (CHF) in British Columbia (November 1 CHF Meeting Proceedings are available at <http://www.heart-health.org>)

Planning for the next CHF collaborative in February 2003 is currently underway.

- Presentation on Provincial CDM products and supports was made to the Interior Health Authority Population Health Conference. The session was very well attended (approximately 120 people in comparison to the 40 we expected), and the Provincial diabetes and congestive heart failure report cards were considered a highly valuable resource. There is considerable interest in the Interior Health Authority to embark on CDM initiatives, and region specific information was requested from the Province for their planning purposes. Participants also identified their first steps to implement the expanded Chronic Care Model to prevent and manage chronic diseases.

Finally, planning is currently underway for a BC Asthma Summit (led by the BC Lung Association in partnership with GlaxoSmithKline) and a provincial kidney disease meeting. The asthma summit is tentatively scheduled for late spring, 2003 and planning is taking place under the auspices of the Asthma Working Group (membership includes representation from the Fraser, Vancouver Coastal, and Northern Health Authorities). Web-based resources for structured collaboratives can be found on [www.ihl.org](http://www.ihl.org) and [www.npdt.org](http://www.npdt.org). The provincial meeting on kidney disease will be co-hosted by the Ministry and BC Renal Agency, in partnership with Kidney Foundation, Amgen, Baxter Corporation, Fresenius Medical Care, Janssen-Ortho Inc. and BC Bio and MDS. (Specific roles still to be determined.)

### 3. Patient Registries

It is now well established in the medical research literature that up-to-date registries of people living with a chronic disease are the foundation of effective chronic disease management. Working collaboratively, the Ministries' Utilization and Management Branch and the Business Planning, Surveillance and Epidemiology Branch (which is a pioneer in patient registry development through BC's participation in the National Diabetes Surveillance Strategy) have been developing registries of BC Medical Service Plan beneficiaries who meet the case definition for various chronic illnesses.

Registry development work is a labour intensive process that entails:

- Agreement on, and verification of case definitions based on national and international validation (where available);
- Creating preliminary lists of patient for future registry development;
- Linking the patient registry data with existing Medical Service Plan, Hospital, and Pharmacare administrative databases;
- Conducting surveys of people identified through this process to verify the quality and accuracy of the data

Patient registries have now been developed for diabetes and congestive heart failure - registries for asthma, depression, and chronic kidney disease (CKD) are currently under development. The Ministries are working collaboratively with Mental Health and Addictions Branch and UBC Mental Health Evaluation and Community Consultation Unit (Mheccu) to establish a robust case definition for depression. In addition, the BC Renal Agency has become a partner in developing a chronic kidney disease registry aimed at improving identification of patients at the earlier stages of chronic kidney disease when intervention has the greatest impact on patient outcomes. In support of this work, BC Renal Agency is providing assistance on many fronts, including case definition development, and identification of data requirements and linkages.

Patient registries are invaluable to health care system stewardship. For example, Provincial disease prevalence information and disease growth rate projections derived from the Diabetes Registry supported development of the Ministries' Provincial Diabetes Initiative, tabled October 4, 2002. The other patient registries will similarly provide the valid and reliable evidence needed for population health surveillance and decision-making regarding preventive health strategies. With respect to CDM, Diabetes and Congestive Heart Failure patient registry information has been linked with MSP, hospitalization, and Pharmacare databases to provide accurate information on the current utilization costs of these chronic diseases, and most importantly pinpoint the performance gaps in how chronic diseases are currently managed in BC.

The health care community has indicated that the patient registry development is valuable, groundbreaking work; for example, many Health Authorities have now requested information on the diabetes patient population in their region (See Table 1 for an example of information prepared for Health Authorities upon their request). Moreover, family physicians have also expressed interest in receiving information on their own patient population so that they can better identify which patients should be recalled for various tests and follow-up.

**Table 1**

**EXPECTED NUMBER OF NEW CASES OF DIABETES EACH YEAR BY HEALTH AUTHORITY OF RESIDENCE**

|                       | Interior                                  | Fraser | Van / Coastal | VIHA | Northern |
|-----------------------|---|--------|---------------|------|----------|
| <b>Age of patient</b> |   |        |               |      |          |
| (years)               | Number of new patients expected each year |        |               |      |          |
| 0 to 1                | 2   | 6      | 4             | 2    | 1        |
| 1 to 4                | 10  | 27     | 15            | 10   | 6        |
| 5 to 9                | 16  | 38     | 20            | 15   | 9        |
| 10 to 14              | 18  | 38     | 21            | 18   | 10       |
| 15 to 19              | 25  | 47     | 29            | 23   | 12       |
| 20 to 24              | 37  | 72     | 59            | 36   | 18       |
| 25 to 29              | 52  | 122    | 123           | 55   | 28       |
| 30 to 34              | 82  | 219    | 199           | 93   | 48       |
| 35 to 39              | 132                                       | 327    | 248           | 143  | 69       |
| 40 to 44              | 218                                       | 473    | 337           | 223  | 100      |
| 45 to 49              | 320                                       | 639    | 481           | 329  | 136      |
| 50 to 54              | 461                                       | 896    | 715           | 485  | 178      |
| 55 to 59              | 503                                       | 948    | 713           | 523  | 186      |
| 60 to 64              | 507                                       | 860    | 647           | 488  | 156      |
| 65 to 69              | 610                                       | 931    | 640           | 566  | 149      |
| 70 to 74              | 512                                       | 781    | 529           | 487  | 106      |
| 75 to 79              | 387                                       | 621    | 415           | 422  | 66       |
| 80 to 84              | 228                                       | 380    | 262           | 268  | 34       |
| 85 to 89              | 104                                       | 181    | 133           | 123  | 15       |
| 90 +                  | 48  | 99     | 70            | 60   | 7        |

An important piece of work to be undertaken in the 2003/04 will be the development of a registry of co-morbidity, insofar as many patients with a chronic illness also suffer from other serious problems (i.e., people living with diabetes may also suffer from cardiovascular disease, CKD, or depression). Initial work has been started, but specific and complex data linkages are required in order to move this work forward.

#### **4. Performance Measures**

The introduction of improved chronic disease management is appropriate when there is a gap between current care and evidence-based standards of care. Clear identification and understanding of the gap is needed before appropriate intervention/practice changes are introduced. To this end, report cards on the status of chronic disease management in BC are required.

Using the Patient Registry data linkages, report cards on diabetes and congestive heart failure prevalence, incidence, patient survival rates, costs, and performance gaps (in relation to evidence base standards of care) have been published. The report cards have been distributed widely, and will be included in the next edition of the Ministries' MSP Physicians' Newsletter. A report card on arthritis has recently been completed and is currently being edited for publication and distribution. HA and family physician reaction to the report cards has been very positive, with requests ranging from development of health region specific editions, to receipt of quarterly as opposed to yearly reports.

Comprehensive evaluation frameworks have been developed for diabetes and congestive heart failure, and work has commenced on developing evaluation frameworks for asthma and chronic kidney disease. Prior to completion, the evaluation frameworks are forwarded to a broad spectrum of health care system stakeholders for review and comment. We have also started development on a minimum dataset that will be used to measure health care system performance across the various chronic diseases.

Discussion between the Ministry and the College of Pharmacists is currently underway regarding granting PharmaNet data access to specific Ministry staff; access to this data will improve our Patient Registry development and performance monitoring capacity.

## **5. A Provincial Website for Chronic Disease Management**

As of October 3, 2002, the Ministries of Health now have a Chronic Disease Management website, <http://www.healthservices.gov.bc.ca/cdm>. This website contains information of interest to physicians and other health care professionals (business cases, utilization data, performance information); patients (general CDM information and resources); and health administrators and policy makers (research, reports, and work being done in BC).

The website also links to valuable sites such as the BC HealthGuide and the BC Clinical Practice Guidelines and Protocols.

To date, information available on the site includes: the Province's vision and strategic direction for CDM (soon to be updated for January 2003); the diabetes and congestive heart failure business cases, report cards, patient information and resources; and proceedings of Provincial CDM meetings and collaboratives. Patient information resources on asthma and CKD are currently under development.

The site has been designed in such a way that over the coming years, it will become an electronic distribution centre for BC knowledge and experience in chronic disease management. The first contributor to the site is the Fraser Health Authority whose presentation shares information on the success of their Heart Health Program and plans for its expansion across the region.

## **6. Business Cases**

Treatment of chronic diseases currently consumes 70-85% of BC's health care budget. Despite this sizable investment, analyses of Ministries of Health administrative data indicate that patient chronic care is actually sub-optimal – namely, it is not consistent with what medical research has identified as best practice for keeping people healthy and thus reducing the burden of disease. In order to sustain BC's health system, the return on this investment must be improved.

Before embarking on CDM initiatives, a cost-benefit analysis is necessary to ensure that initiative implementation is an economically sound investment. To date, business cases for diabetes and congestive heart failure have been developed, and both indicate that substantial improvement in chronic care and patient outcomes can be realized within 3 year budget targets.

Feedback on these business cases in terms of providing compelling evidence to move forward with chronic disease management strategies has been very positive. Both the Northern and the Fraser Health Authorities are embarking on a congestive heart failure initiative, and the Vancouver Island Health Authority will be implementing a diabetes initiative in early 2003/2004.

Business cases are currently under development for asthma and chronic kidney disease initiatives – both of which are approximately 60% completed. With respect to future business case development, the BC Arthritis Society and other key stakeholders, including Merck Frosst, initiated a recent meeting with us regarding developing a business case for arthritis management. Within the Ministries, Mental Health and Addictions Branch has also expressed support for business case development for the Provincial Depression Strategy.

The Working Groups supporting business case development represents the full spectrum of the health care community, including membership of health authorities, health professions organizations, university researchers, non-government organizations, diagnostic facilities, and the private/public partnership.

Business cases completed to date have been distributed widely (e.g., MLA's, health authorities, Health Canada, non-governmental health care organizations), and are currently available on the Ministries' CDM website.

## **7. Clinical Guidelines and Protocols**

The Ministry of Health Services, Medical and Pharmaceutical Services works closely with the British Columbia Medical Association and practicing physicians to develop guidelines and protocols to assist physician and patient decision-making. The Guidelines and Protocols Advisory Committee is under the authority of the Medical Services Commission – the legislated authority of the Medicare Protection Act and the Medical Services Plan.

A guideline for the comprehensive care of diabetes (developed through the work of an expert committee, and in consultation with the Canadian Diabetes Association and over 400 physicians) has been approved and distributed to BC physicians. In addition, the guideline includes a Diabetes Care Patient Flow Sheet designed to be included in the patient's chart as a reminder and record of whether care objectives have been met. Physician feedback indicates patient flow sheets are very useful in day-to-day practice.

A guideline for Congestive Heart Failure (also developed in consultation with experts and the health care community) is now 90% completed, and expected to be approved in early 2003/04 following external review completion. The guideline recommendations on heart failure care are expected to improve patient care and reduce patient morbidity and hospitalization costs. The guideline will include a flow sheet and a patient reminder guide to support physician uptake of the guideline in day-to-day clinical practice. Most notably, the guideline also provides recommendations on end of life care, an aspect of patient care that is important but often overlooked in many congestive heart failure guidelines.

The Ministries of Health are committed to helping health authorities and health professionals with the uptake of these practice guidelines. In this regard, the Northern and Fraser Health Authorities will be integrating the Congestive Heart Failure guideline within their respective CHF management initiatives slated for implementation in 2003/04.

Other guidelines currently under development are asthma, depression, hypertension and CKD.

Finally, a re-orientation of the MPS/BCMA Guidelines and Protocols Advisory Committee to better support a more comprehensive approach to CDM is currently underway and slated for completion, March 2003. In response to Health Authorities requests, it is envisioned that specific CDM guidelines will also be developed to meet the information needs of nurses and other health care providers, and of patients (and their families) living with a chronic disease.

## **8. Physician Support and Innovation**

The Medical and Pharmaceutical Services Division (MPS), is working with the BCMA, together with a number of physicians, to find a solution to current health system barriers to effective chronic disease management. Moreover, we recently participated in a joint planning meeting of the Vancouver Island Health Authority and the BCMA to support the participation of physicians in cdm activities. In addition, we wanted to identify how general practice physicians can assist the General Practice Services Committee and their allocation of the \$10 million to support cdm.

In follow-up to results of the "Snapshot on Diabetes Care in British Columbia" we conducted additional analyses using the Diabetes Patient Registry linked data and found that while there is room for improvement on a provincial basis, many BC physicians are providing good diabetes care (indicating that compliance with the Diabetes Guidelines is indeed achievable). In order to identify how best practice can be achieved within the BC context, we surveyed the top 100 performing physicians requesting information on how their clinical practice is structured in order to achieve optimal diabetes care performance. Data collection is currently underway and the results will be made available upon data analysis completion; a dissemination plan for best practices is currently under development to support physicians and introduce innovative practice solutions for providing optimal patient care.

## **9. Patient Self-Management**

The emerging role of self-management programs in comprehensive health care deals with the question "how do patients continue with the best quality of life possible? Self-management especially peer-led self-efficacy training builds patient confidence to better manage their disease(s). Self-management also focuses on improved health status and appropriate health care utilization.

In support of this, the provincial CDM web site is now on line to support patients and their families and is linked to the valuable resources of the BCHealthGuide and the BCNurseLine. The Ministry of Health Services is leading the development of resources to support patient self-management. This work is being done in collaboration with experts from Stanford University and B.C.'s Institute for Health Promotion Research who have pioneered proven methods in expert patient development.

Finally, \$0.9 million from the Health Canada Primary Health Care Transition Fund has been allocated to build self-efficacy in patients in BC. This funding is available to Health Authorities for implementing the Chronic Disease Self-Management (CDSM) Program which is delivered through the University of Victoria's Centre on Aging – Congestive Heart Failure, Diabetes and Arthritis CDSM programs have been implemented across B.C. with great success (for more information see, <http://www.coag.uvic.ca>).

The Ministry of Health Service's Utilization Management Branch recently conducted a large mail-out survey in partnership with the Vancouver Island Health Authority, the Canadian Diabetes Association (CDA) and the British Columbia Medical Association (BCMA). The purpose of the survey was to assess the impact of diabetes on patients, their satisfaction with services available in their community, assess their knowledge and confidence in managing their disease, and at the same time validate the patient registry. Approximately 2057 people living on Vancouver Island were surveyed, of which 52% returned a completed survey. This excellent return rate resulted in a survey sample that is representative of VIHA's diabetes patient population. VIHA is currently in the process of analyzing the survey data, and a report of the results will be available in the near future. This information obtained via the survey will also support the Diabetes Initiatives planned for implementation in 2003/04.

## 10. Private/Public Partnerships

A provincial meeting with the Pharmaceutical industry in October identified potential private/public partnership opportunities in chronic disease management, and served as a forum to explore various issues including common objectives, joint initiatives, fair practice criteria, and health system sustainability issues.

Alignment of strategic cross-sector partnerships lead to better patient outcomes, and provides the funding currently not available within the system that is needed in order to catalyze change. Current partners, and those with whom we are developing partnerships include:

- AstraZeneca
- GlaxoSmithKline
- Merck Frosst
- Baxter Corporation
- Amgen Canada Inc.
- Fresenius Medical Care
- Janssen-Ortho Inc.
- Pfizer Canada Inc.

Provincial discussions also continue with the industry on long-term investments for chronic disease management.

*For more information, contact B.C. Chronic Disease Management at:*  
[hlth.cdm@gems1.gov.bc.ca](mailto:hlth.cdm@gems1.gov.bc.ca)