Meeting the Challenges in Health: Building a System for BC’s Future

A Submission to the BC Ministry of Health's

Conversation on Health

By

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Executive Summary

Recommendations contained within this contribution to the Conversation on Health represent The Heart and Stroke Foundation of BC and Yukon’s perspective on some of the most important directions that the BC Ministry of Health can take over the short- and long-term to reduce the serious impact of chronic disease in our province. The recommendations are organized under our five Key Result Areas of Knowledge Generation, Health Promotion, Patient Support, Public Awareness and Advocacy.

Recommendations for Knowledge Generation

- Integration of the health databases we already have in BC.
- Development of a comprehensive, long-term cardiovascular disease surveillance system. This would involve improving data collection for cardiovascular/chronic disease risk factors (i.e., collecting this data from a range of sources) and improvements in reporting on the economic burden of illness and death due to cardiovascular and/or chronic diseases.
- Investing in a large-scale longitudinal study of British Columbian newborns to evaluate the development of obesity and chronic disease risk factors and the impact of nutrition and physical activity over the long term.

Recommendations for Health Promotion

- Policy development and leadership from the Ministry of Health to implement quality, daily physical activity for BC children in kindergarten through grade 12.
- Designate 5% of the total health care budget (on an ongoing basis) to health promotion and disease prevention.
- Increased taxation on tobacco products.
- Removing sales taxes from restaurant foods that are ‘healthy’ (i.e., through using the Health Check™ standards), and from ‘healthy’ food products such as single servings of bottled water, salads and fruit trays in retail stores.
- Removing sales taxes from sports and recreation equipment.
- Providing tax credits/breaks for enhancing physical activity such as the purchase of gym memberships, fitness classes, etc, for all age groups (not just children).
- Allocating transportation-related infrastructure funds toward the development of community infrastructure that promotes the use of active modes of transportation.
- Encouraging mixed-use developments that enable people to walk or bike to a variety of shops and services in their neighbourhoods.
**Recommendations for Patient Support**

- An improved process of translating evidence (i.e., new protocols, guidelines) into practice for best patient care.
- Better integration of care and management of records across primary, specialist and community care, as well development and implementation of the electronic medical record.
- A system to refer patients to community-based supports from their family physician (i.e., to walking clubs, smoking cessation, nutritional counseling, etc).
- Improved access to medications through PharmaCare.
- Increased access to stroke/TIA ‘rapid access’ clinics.
- Increased access to integrated Secondary Prevention functions (or clinics) to improve preventative care for chronic conditions.

**Recommendations for Public Awareness**

- The provision of long-term, stable funding to a social marketing program that reinforces positive messages about healthy eating and physical activity while persuading British Columbians to take responsibility and an active role in their health. The program should raise awareness of all risk factors for chronic disease (physical activity, unhealthy eating, tobacco use, obesity, hypertension, cholesterol), and the actual relationship between risk factors and chronic disease.
- Widespread access to automated external defibrillators (AED) and training in CPR and AED skills.
- A media campaign specifically directed at recognizing the signs and symptoms of stroke/TIA.

**Recommendations in Advocacy**

- A fully funded BC Stroke Strategy with ongoing yearly supplements to sustain progress.
- Introduction of the most aggressive and restrictive tobacco policies in Canada, extending restrictions to sales in pharmacies, advertising, and expand restrictions in public places to include parks, beaches, public transit stops, sporting venues, and vehicles carrying passengers under 18 years of age.
- Study and consider the option of controlling tobacco products by only allowing their purchase in government regulated liquor outlets. This would increase control and at the same time reduce the amount of resources currently required for enforcement. Accordingly, the legal age of purchase for tobacco products would need to be increased to 19 years of age.
• Raising the tax deduction ceiling on physical fitness incentives (programs and equipment) to $6,000 per year ($1,500 per individual) with no age restrictions for participants.

• Implementation of the recommendations outlined in the Select Standing Committee on Health’s *Strategy for Combating Childhood Obesity and Physical Inactivity in British Columbia*. 
British Columbia’s Looming Health Crisis

The health of British Columbians is in jeopardy. At both ends of the spectrum, we have crises brewing: children are heavier and less physically active than ever before, and the sheer number of elderly people is soaring with a growth rate that has never been observed in the province’s history. In the middle, we have a population of ‘baby boomer’ adults, ridden with chronic disease risk factors -- 8 of 10 Canadians have at least one cardiovascular disease risk factor-- that will be costly over the next decade. Whether or not the actual ‘fiscal’ crisis in health care is real enough to justify fear of dramatically escalating health care costs – a subject of some debate [1] – a crisis in terms of quality of life is certainly brewing. When 13 year olds are managing Type 2 diabetes, a disease previously only common in overweight middle-aged and older adults, and one quarter of Canadian adults are obese (up from 10% in 1970 [2]), we can be sure that this doesn’t bode well for a happy, healthy majority. Although significant strides have been made by the BC government to curb the costs and suffering of these epidemics, further action can lead us towards a more sustainable, healthier system. Bold action is justified now.

A focus on action upstream of where the crises occur, and making serious monetary, planning and time commitments in the area of prevention, is the best opportunity to make a real difference in the actual health of British Columbians and the sustainability of our health care system.

The Heart and Stroke Foundation of BC and Yukon is a volunteer-based health charity that aims to lead the way in eliminating heart disease and stroke, while reducing the impact of these diseases through ground-breaking research and the promotion of healthy living and advocacy. Recommendations contained within this contribution to the Conversation on Health represent our perspective on some of the most important directions that the BC Ministry of Health can take over the short- and long-term to reduce the serious impact of chronic disease in our province.

Current Trends in Health in BC

The current situation in health sets the stage for both the present and future problems in health care in BC. There is an overall need for sustainability in the health care system. This concern around sustainability forms the basis for the Ministry’s ‘Conversation on Health’, which aims to define the most significant issues in sustainability and solicit
suggestions to address them. There are a host of factors that play into the potential crisis in health care, notably the incidence of risk factors for chronic disease, the burgeoning aged population, a lack of engagement in self-prevention or self-care for chronic disease, a paucity of longitudinal data that would assist in the tracking of effectiveness of health interventions, and a complicated relationship among health charities, health authorities and the Ministry of Health.

**Risk Factors for Chronic Disease are Rampant in BC**

Management of chronic disease and treatment of complications related to chronic disease – notably, cardiovascular disease, cancer, diabetes, and obesity -- account for a major proportion of health care costs in British Columbia. Cardiovascular disease, cancer and diabetes alone consume $1.28 billion or 10.3 per cent of BC’s health care budget [3]. Over one-third of British Columbians suffer from chronic conditions [4]. Typically underlying these chronic diseases are a set of risk factors that need to be addressed in both primary and secondary prevention efforts.

*Tobacco use* is a leading risk factor for cardiovascular disease. In 2006, between 16 and 27% of the BC population were smokers, depending on the age group examined (the 20 to 24 year old group had the highest smoking rate). There are higher smoking rates in men than women, aboriginals than non-aboriginals, and in those who live in the northern regions of BC [5].

*Physical activity* protects against heart disease, stroke, hypertension, Type 2 diabetes, obesity, depression, anxiety, and stress. In British Columbia, 15% of heart disease, 19% of stroke, 10% of hypertension, and 16% of Type 2 Diabetes are attributable to physical inactivity. According to the Canadian Community Health Survey, 38% of British Columbians are physically inactive. A conservative estimate of the annual cost of lack of physical activity in British Columbia is $573 million [6].

The relationship between *eating habits* and chronic disease risk is likely indirect, through an impact on obesity, cholesterol, and hypertension. Across all age groups, it is evident that British Columbians, on average, aren’t meeting the recommended daily intakes within multiple food groups [7]. Action Schools! BC showed that none of the nine to eleven year old children participating in the study consumed five or more servings of fruit and vegetables a day (the recommended daily intake in 2005) [8]. Concurrently, the consumption of unhealthy food choices, notably sugar-sweetened beverages and high fat/sugar/sodium foods are escalating [9, 10].
Nearly one-third of BC adults are overweight (BMI > 27). Within the Action Schools! BC pilot evaluation, nearly 20% of boys were classified as ‘at risk’ for overweight, with an additional 20% classified as overweight/obese. Fifteen percent of girls were ‘at risk’, while 10% were already overweight/obese [8]. Those who are obese are four times more likely to have diabetes, 3.3 times more likely to have high blood pressure, and 56% more likely to have heart disease than those who are at a healthy weight [11].

In BC, nearly 700,000 individuals have hypertension [4]. Typically, about 40% of those with hypertension don’t even know that they have it [12]. Hypertension is a major risk factor for stroke: it is estimated that effective management of hypertension (including increasing awareness of the relationship between hypertension and stroke, and management of blood pressure) could reduce stroke incidence by 50% in North America [13].

High blood cholesterol is a major risk factor for heart disease and stroke. It can lead to atherosclerosis, which makes it more difficult for blood to flow. In primary care practice in Canada, research showed that 14% of the population had dyslipidemia, and over 60% were untreated [14].

There are over 250,000 patients with diabetes in BC [4], and the prevalence rate continues to grow. Having diabetes is certainly related to a poorer quality of life, and many complications such as heart disease and stroke (80% of those with diabetes will die of cardiovascular disease), kidney disease, blindness and amputation. Diabetes is expensive: diabetics rack up medical costs that are that are two to three times higher than those without diabetes.

**The ‘Grey Tsunami’**

British Columbia, like the rest of Canada, has an ageing population. Ten percent of British Columbians are over the age of 70. The seniors population in BC is expected to grow over 100% in the next 25 years [4]. Chronic conditions occur more frequently in those who are middle-aged and older. Heart disease and strokes occur with a higher frequency in the elderly, with the risk of stroke doubling in each successive decade after 55 [15]. The ageing population could account for a 1 to 2% rise in stroke incidence per year [16]. Stroke is a costly (on average $27,000 per acute care admission) and in many cases, preventable disease (up to 50%) It is the leading cause of acquired long term
disability in British Columbia, and further efforts to prevent the costs and suffering associated with this disease are certainly warranted. Overall, older chronic disease patients require longer acute care stays and have increased disability potential and need for long term care. Combined with the prevalence of risk factors across all age groups, the impact of the sheer number of older people in British Columbia over the next few years will be felt in a serious way in the health care system.

**Prevention and Self-management of Chronic Disease: Is Anybody Interested?**

British Columbians need to be engaged to invest themselves in prevention efforts. A serious wake-up call is needed to get the population on board in taking responsibility for their own health. Organizations and government can put forth initiatives in primary and secondary prevention of chronic disease, but it’s up to the general population – the ones with the risk factors and the precursors to chronic disease – to be engaged. The current evidence shows that there is a lack of understanding or motivation in the general public to move towards improved health. Importantly, there is a lack of public awareness around chronic disease risk factors, and the actual relationships between chronic disease and risk factors. Just 4 out of 10 British Columbians can name three risk factors for cardiovascular disease, and there was a drop from previous years in the percent of British Columbians who indicated that smoking was related to heart disease (from 65% in 2004 to 56% in 2006) [17]. Additionally, only 12% and 6% or respondents associated hypertension and diabetes with heart disease, respectively. Further illustrating this is a lack of recognition of the warning signs of stroke – just 20% of the BC population can name two of them [18].

Within health care, there is an increasing interest in self-management of chronic disease; and it is expected that this would ease the cost of care and improve the potential for secondary prevention of major events. The 2007 Primary Health Care Charter includes building supports for patients as partners, through evidence-based self-management support for patients [4]. The Heart and Stroke Foundation supports self-management in many ways: through dissemination of information on its website and patient-family support packages and resources, community forums, and strengthening and expanding links to community care.
**British Columbia’s Data Isn’t Comprehensive and Integrated**

More and better data is needed to properly plan and evaluate health policies and new initiatives. There is a need for a person-oriented system, that prospectively tracks both fatal and non-fatal events (especially related to heart attack and stroke). A system that also incorporates those with risk factors for chronic disease, in order to follow their management and the relationship to major health events (i.e., heart attack, stroke), would also be valuable in long term planning and tracking. Integration of databases (i.e., BC-linked database, CIHI, cardiac registry) and allowing for contributions from many sources (i.e., from primary care for risk factor reporting and tracking), and universal use of electronic data records would improve the situation. In addition, we lack recent data that can demonstrate the economic burden of chronic disease – this weakens the case for, and evaluation of, health care interventions [19].

**Who Delivers the Improvements in Care?**

Increasingly over the past few years, the BC government has provided unrestricted grants to health charities to improve conditions within certain chronic diseases. These grants typically result from a substantive advocacy effort, including the presentation of a sound rationale or business case to justify improvement in care. However, there are now expectations (beyond that of financial stewardship) that the health charity will act to spearhead and implement the necessary changes within the health care system, which is not a traditional role of these groups. Health charities do not have a reporting, legislative or governance relationship with health authorities, who provide the care services, therefore making it difficult to get ‘accountable’ results. Also, as the Ministry no longer ‘implements’ programs within health authorities (instead only providing policy support and direction), central support and accountability is required. This is an emerging gap in program leadership that must be looked at and discussed with stakeholders.

**Progress by the Ministry of Health**

While a number of factors (listed above) will have a potentially significant impact on the sustainability of our health care system, at the same time, it is important to recognize the progress of the provincial government in improving the health of British Columbians. Some recent notable actions include:

- Bill 10, which effectively makes it difficult to smoke in any public place and to obtain tobacco on government property or public institutions. This not only protects non-smokers from tobacco’s harmful effects, but discourages further tobacco use by current smokers. Legislation such as this lays the foundation for
further bold action that aims to reduce the existence of chronic disease risk factors in British Columbia.

• BC’s 2007 Primary Health Care Charter [4] maps out several key initiatives related to the prevention and treatment of chronic disease, notably:
  o Identifying inequities in access to primary health care and planning to improve access for all British Columbians (including attracting and retaining family physicians in areas with high need),
  o The development of family physician guidelines for primary prevention and a risk reduction incentive payment for cardiovascular disease,
  o Family physician incentives for clinical management of diabetes, congestive heart failure, hypertension, and complex care for patients with two or more chronic conditions,
  o Implementation of a culturally-appropriate approach to chronic disease prevention/management for First Nations and Inuit people,
  o Alignment of health authorities’ services (i.e., home nursing care and nutrition support services) and specialists with primary health care providers
  o Linking data collection for stroke in all emergency departments to implementation of stroke protocols and primary health care initiatives,
  o Implementation of decision-support technology (i.e., Web-based CDM Toolkit to support guideline care, and integrating the electronic medical record and eHealth),
  o Conducting an evidence review and population health data analysis to assist health authorities and other stakeholders in strategic planning (to target services appropriately), and
  o Integrating health network teams.

• Development and continued action within the Act Now BC platform, provides a cohesive platform for cross-government and cross-sectoral community-based approaches to address key chronic disease risk factors. Activities within ActNow target healthy eating, physical inactivity, tobacco use, obesity and misuse of alcohol with a specific focus on pregnancy.

• The work of the Select Standing Committee on Health, which in 2006 reported on A Strategy for Combating Childhood Obesity & Physical Inactivity in BC. This report outlines specific action for the government to assist in attaining healthy weights and higher levels of physical activity for BC youth.
• Excellent *support of health research* through the Michael Smith Foundation for Health Research. The BC government recognized the importance of funding health research in the province’s universities, and the critical role that personnel awards play in retaining superior researchers in BC.

Clearly, there is government action aimed at chronic disease prevention and improvements in primary health care on several fronts. At the same time, more needs to be done to successfully combat the looming crises in health care in BC, and actions need to be aggressive to have a real impact. The following recommendations target risk reduction for chronic disease, and focus on primary prevention to provide as many health benefits as possible across age and population groups. The recommendations are organized under the Heart and Stroke Foundation of BC and Yukon’s Key Result Areas from our Strategic Vision.

**Bold Action for Big Changes**

**Knowledge Generation**

In BC, we need longitudinal data that helps us evaluate the existence and evolution of chronic disease risk factors. This will help with long-term planning in prevention, and help to prepare the health care system for the onslaught in necessary care that is inevitable. The Heart and Stroke Foundation of BC and Yukon specifically recommends:

• Integration of the databases we already have in BC.

• Development of a comprehensive, long-term cardiovascular disease surveillance system. This would involve improving data collection for cardiovascular/chronic disease risk factors (i.e., collecting this data from a range of sources) and improvements in reporting on the economic burden of illness and death due to cardiovascular and/or chronic diseases.

• Investing in a large-scale longitudinal study of British Columbian newborns to evaluate the development of obesity and chronic disease risk factors and the impact of nutrition and physical activity over the long term.
Health Promotion

There is an overall need for an increased emphasis on both primary and secondary prevention. The BC government can take bold action by developing policies that demand the re-organization of healthy eating and physical activity in multiple environments. To this end, the Heart and Stroke Foundation of BC and Yukon specifically recommends:

- Policy development and leadership from the Ministry of Health to implement quality, daily physical activity for BC children in kindergarten through grade 12. Although the Ministry of Education recommends that 10% of instructional time/school year be dedicated to physical education (which equals approximately 90 to 100 hours per school year for grades 1 through 7), there is no mandatory daily offering or measurement of whether schools are meeting this recommendation. The opportunity to provide physical activity to children should not be a ‘choice-based’ situation, offered in keen schools that register to take part in Action Schools! BC; daily physical activity should be mandatory and standardized across all schools in the province. The benefits of regular physical exercise cannot be denied, and it is unacceptable that all children in British Columbia do not engage in physical activity as part of their school day.

- Designate 5% of the total health care budget (on an ongoing basis) to health promotion and disease prevention.

- Increased taxation on tobacco products. The ‘affordability factor’ has huge influence on whether youth will obtain and use tobacco [20, 21].

- Removing sales taxes from restaurant foods that are ‘healthy’ (i.e., through using the Health Check™ standards), and from ‘healthy’ food products such as single servings of bottled water, pre-packaged salads and fruit trays in retail stores.

- Removing sales taxes from sports and recreation equipment, such as bicycles, skates etc.

- Providing tax credits/breaks for enhancing physical activity such as the purchase of gym memberships, fitness classes, etc, for all age groups (not just children).
- Allocating at least 7% of transportation-related infrastructure funds toward the development of community infrastructure that promotes the use of active modes of transportation e.g., bicycle trails/paths, walking trails/paths and sidewalks.

- Encouraging mixed use developments that enable people to walk or bike to a variety of shops and services in their neighbourhoods.

**Patient Support**

Better care and integrated support can be provided to chronic disease patients in BC, which will contribute to increasing the efficiency and sustainability of the health care system. Specifically, the Heart and Stroke Foundation of BC and Yukon recommends:

- An improved process of translating evidence into practice for best patient care. This is especially true in situations where health organizations or health charities outside of the health authorities develop evidence-based protocols for the improvement in care – the protocols are often in need of a method of integration, supported by the Ministry of Health, so that they can be utilized in the actual care settings (for example, STEP Stroke Guidelines developed by the HSF). Protocols and guidelines need to be reinforced formally through the CME.

- Better integration of care and management of records across primary, specialist and community care, as well the development and implementation of the electronic medical record.

- A system to refer patients to community-based supports from their family physician (i.e., to walking clubs, smoking cessation, nutritional counseling, etc).

- Improved access to medication through PharmaCare. Access to medicine is and will continue to be a critical element in the prevention and treatment of heart disease and stroke. The BC provincial pharmaceutical program must ensure that the focus of drug policy is on the achievement of optimal patient outcomes (measured through clinical and cost effectiveness studies), that there is variety in the access to medications,
that patients are to graduate onto other medications should one not confer the intended benefit, that all patients have some form of drug coverage, and that drug policy and program development is an open and consultative process that considers the input of clinical opinion leaders, patients and their patient organizations, and other relevant experts.

- Secondary Prevention or ‘Risk Factor’ Clinics to improve care for chronic conditions. Given the current staggering numbers of British Columbians with chronic conditions or risk factors for chronic diseases – approximately one-third of the population has at least one chronic condition, with 700,000 British Columbians having hypertension alone [4] – an integrated system of care to address and manage these high risk individuals is warranted to minimize their further demand on the health care system and reduce the incidence of major acute events. There are already 40 ‘risk reduction’ clinics in BC, however, there is a lack of integration, consistency in care, use of guidelines, and general awareness that this care exists. Although BC already has several evidence-based guidelines for managing chronic conditions, it is clear that a system that actually utilizes the guidelines effectively is lacking. In 2005/06, just 44% of people with diabetes received recommended guideline care [22]. Another example is that less than 20% of people treated for hypertension have attained adequate blood pressure control. A system of care for chronic disease risk would provide the opportunity to treat patients with single or multiple chronic conditions. Simply providing incentives for GPs to practice according to evidence-based guidelines [23] resulted in a dramatic improvement in outcomes for congestive heart failure patients [22]. Integrating physician incentives with clinics to treat patients with chronic disease risk factors would contribute significantly to secondary prevention of chronic disease (and its associated events and costs) in BC.

**Public Awareness**

British Columbians need some direction in making the realization that they are responsible for health. Efforts need to be directed towards raising interest and awareness in the personal responsibility for health, and to increase training that will result in a greater chance of heart attack and stroke victims surviving and making it to the hospital quickly. The Heart and Stroke Foundation of BC and Yukon recommends:
• The provision of long-term, stable funding to a social marketing program that reinforces positive messages about healthy eating and physical activity while persuading British Columbians to take responsibility and an active role in their health. The program should raise awareness of all risk factors for chronic disease (physical activity, unhealthy eating, tobacco use, obesity, hypertension, cholesterol), and the actual relationship between risk factors and chronic disease. This campaign should be cutting edge and act as a true wake-up call for British Columbians.

• Widespread access to automated external defibrillators (AED) and training in CPR and AED skills. Government should establish regulations or legislation to ensure immunity of the overseeing physician and cardiac arrest responders from liability, excluding gross negligence or willful misconduct.

• A media campaign directed at recognizing the signs and symptoms of stroke/TIA.

Advocacy

New ways of thinking are needed to improve health in BC, and the Heart and Stroke Foundation will continue to advocate for dramatic change in the several areas:

• A fully funded BC Stroke Strategy with ongoing yearly supplements to sustain progress.

• Introduce the most aggressive and restrictive tobacco policies in Canada, extending restrictions to sales in pharmacies, advertising, and expand restrictions in public places to include parks, beaches, public transit stops, sporting venues, and vehicles carrying passengers less than 18 years of age.

• Study and consider the option of controlling tobacco products by only allowing their purchase in government regulated liquor outlets. This would increase control and at the same time reduce the amount of resources currently required for enforcement. Accordingly, the legal age of purchase for tobacco products would need to be increased to 19 years of age.
• Raising the tax deduction ceiling on physical fitness incentives (programs and equipment) to $6,000 per year ($1,500 per individual) with no age restrictions for participants.

• Implement the recommendations outlined in the Select Standing Committee on Health’s *Strategy for Combating Childhood Obesity and Physical Inactivity in British Columbia*. 
References