Submission to the Select Standing Committee on Health, January, 2012

Sustainability of the Health Care System

Submitted on behalf of the Public Health Association of BC by:

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(Jan 7, 2012, noon)

Executive Summary

Health care in BC is becoming unsustainable because health care expenditures are increasing faster than government revenues. This is, firstly, because of an increasing burden of chronic disease caused by physical inactivity, poor nutrition, obesity, smoking and other unhealthy behavioural choices and the underlying social and economic conditions that influence these choices; and, secondly, a primary health care (PHC) system that is outdated, inefficient and wasteful. Most chronic illness can be prevented through a combination of policies and programs at a population level combined with individual clinical prevention in primary care settings. This submission outlines two complementary and interconnected strategic approaches to sustaining the publicly funded health care system:

1. Transforming the PHC system to better prevent and manage chronic disease through the integration of primary care with public health and community care. Six basic requirements for this transformation are: (1)Geographically defined populations served, (2)Comprehensive services integrated with public health and community care, (3)Interprofessional teams, (4)Electronic data systems, (5)Blended payment systems and (6) A governance system to enable community input and feedback. This system change should be driven by an agreed upon set of metrics (indicators) used as a basis for annual evaluation and reporting by the Health Council of Canada; and resources targeted on the integration of public health, community care and primary care.
2. Intersectoral action outside of health care to:
    - Reduce the prevalence of sedentary lifestyles, poor nutrition, obesity and other unhealthy lifestyles by creating the social and environmental conditions in which people can be healthy
    - Address the 'causes of the causes': social and economic marginalization (hunger, homelessness and poor housing, lack of access to child care, education and effective health care,

unemployment, poor working conditions, unhealthy environments, etc.).

Recommendations:

1. **Develop PHC indicators and data as a basis for annual reports by the Health Council of Canada on progress being made in integrating and improving the performance of PHC across Canada.**
2. **Increase resources for system change and in particular, public health and the primary prevention of chronic disease.**
3. **Develop a comprehensive intersectoral provincial strategy to improve nutrition, physical activity and healthy weights.**
4. **Develop a comprehensive intersectoral provincial strategy (with goals, indicators and accountability) to Improve prosperity and help all families provide the necessities of life for their children (nutritious food, housing, clothing, transport, care and education, healthy environments)**

Introduction

Health care financing in BC as in many other jurisdictions is becoming unsustainable because health care expenditures are increasing faster than government revenues. At current rates of increase, provincial health care expenditures have been projected to increase from about 40% of provincial program spending to about 80% by 2030 (Dodge, Drummond). This means that many other critical provincial government services including income support, social housing, food security, child care and education, policing, the justice system, highways, transportation, utilities and other infrastructure will become compromised.

Options to respond to this looming crisis include increasing government revenues (through income, sales, corporate, payroll [EI, CPP], 'sin', property and other taxes, MSP premiums), increasing government debt and deficits, cutting publicly funded health care services and adding user fees, continuing with the status quo or transforming the health care system to provide more effective and efficient prevention and care services. These are not mutually exclusive alternatives and some combination will likely be implemented. As some of these options such as cutting back on essential medical services or introducing user fees are both politically tenuous and a threat to the publicly funded health care system, in this submission, the emphasis is on a strategy to transform the health system and reduce the burden of chronic disease.

Rising health care costs are attributable to population increases, aging of the population and the increasing availability, costs and utilization of pharmaceuticals, medical technology and health human resources (CIHI 2011). Much of the utilization costs in turn is driven by the *increasing prevalence of*

chronic diseases such as obesity, hypertension, diabetes, heart disease, stroke, cancer, mental illness, lung disease (including asthma), musculoskeletal conditions (e.g. arthritis), renal failure and liver disease. 90% of the current burden of mortality and morbidity is attributable to these chronic conditions alone and in combination.

The prevalence of chronic disease has been increasing in all age groups because of a combination of factors:

1. The increasing prevalence of diseases (such as diabetes, cardiovascular disease, cancer, arthritis, mental health disorders, others) caused and exacerbated by unhealthy behavioural choices such as smoking, physical inactivity, poor diet and obesity and the underlying social and economic conditions that influence these choices.
2. Successful treatments of conditions such as myocardial infarction, stroke, HIV and cancer that at one time were fatal but have been converted to chronic conditions.
3. Population growth and aging – 74% of seniors report at least one chronic condition (Terner et al. 2011).

Most of the burden of chronic disease is preventable through a combination of policies and programs at a population level interconnected with individual clinical prevention in primary care settings. This can best be achieved by the integration of population and individual interventions in a transformed primary health care system complemented by policies and programs outside of health care:

- Transforming health care:
    - Developing a modern primary health care system that integrates public health, primary clinical care and community health services,
    - Developing pharmaceutical and medical technology policies,
    - More effective use of health human resources
    - Increasing hospital efficiency and safety.
- Developing healthy public policies outside of health care:

- Policies that encourage healthy behaviors regarding nutrition, physical activity, obesity, tobacco, drug and alcohol addiction and injury prevention;
- Taking action on the 'causes of the causes' of chronic disease; recognizing that families that cannot afford the basic necessities of life (housing, food, clothing, transportation, child care, education, employment, recreation, access to a clean, safe environment and effective health care) have a much higher prevalence of all chronic diseases.

Transforming primary health care

While controlling costs in health care will require addressing the costs and utilization of pharmaceuticals and medical technology, hospitals and health human resources, this submission focuses on the best available evidence as to *how to transform primary health care* so that the burden of chronic disease can be reduced through better prevention and management.

Much of the care for chronic conditions is provided through a primary care system that was created long ago. It was designed before the epidemiological transition from acute conditions to the present predominance of chronic disease and is now the 'wrong business model' (Christansen 2009); it is inefficient (wasteful), poorly organized, lacking continuity and falls below the standard of care being achieved in high performing systems (Katz et al. 2009, Denis et al. 2011). A lack of access and attachment to a primary care practice, prolonged wait times, short consultations (often limited to one problem per visit), return appointments for diagnostic testing results and prescription refills and repetitive history-taking and testing have led to widespread waste and patient dissatisfaction (Katz et al. 2009, Canadian Institute for Health Information 2009). Primary care quality indicators for the prevention and care of chronic conditions show that performance in Canada is substandard and is leading to considerable unnecessary hospitalization and expenditure (Katz et al. 2009).

There is now abundant evidence and consensus as to how to transform primary health care: it will require substantial change which includes the integration of public and population approaches with the highest standard of clinical care provision.

The evidence – primary prevention of chronic disease yields savings in lives and health care costs

The key to creating a fiscally sustainable health care system lies in allocating resources to services and programs that are most effective and efficient at improving and restoring health and preventing the onset of disease while reducing expenditures on expensive low-yield interventions.(Woolf, JAMA 2009)

Recent economic analyses show that a prevention strategy based on enabling healthier behaviour and safer environments 'slows the growth in prevalence of disease and injury, alleviating the demand on limited primary care capacity' (Robert Wood Johnson Foundation, Oct 2011). For example, one study showed that for each 10% increase in local public health spending, deaths from cardiovascular disease dropped by 3.2%. This represents increased spending of US$312,274 at the local health agency level (US). By contrast, to achieve the same reduction in cardiovascular mortality through clinical care interventions would require over US$5.5 million, or more than 27 times the public health investment. (Mays & Smith, Health Affairs Aug 2011; Milstein et al, Health Affairs, May 2011).

There is now extensive evidence that the majority of health care expenditures are spent on conditions that are largely preventable such as diabetes, hypertension, heart disease, stroke, cancer and injuries. In the US it has been estimated that an investment of US$10 per person per year for 'proven community-based disease prevention programs (on) physical activity, nutrition, and (reducing) tobacco use can lead to reductions of type 2 diabetes and high blood pressure by 5% in one to 2 years; heart disease, kidney disease and stroke by 5% in 5 years; and some forms of cancer, COPD and arthritis by 2.5% in 10 to 20 years.' This would yield *net savings* of almost US$18 B annually, a return on investment (ROI) of 6.2 for every US$1 invested. (Trust for America's Health, Feb 2009) These ROI estimates

are based on savings in health care costs alone without considering other societal costs such as lost productivity, and so are very conservative estimates.

A recent analysis of three broad strategies designed to reduce the burden of chronic disease in the US (increasing access to care, improved clinical prevention/ care of chronic disease and primary prevention programs) concludes that, in terms of reducing the burden of chronic disease and reducing health care costs, only a strategy that is based on primary prevention (enabling healthier behaviours and safer environments) would result in actual health care cost savings. Alternative strategies based on improving access to and quality of health care services, while having some effect on reducing the burden of chronic disease mortality, in fact were associated with some increase in health care costs (although at a lower rate than the status quo) (Milstein et al, Health Affairs, May 2011).

On the basis of optimum return on investment, the US National Prevention Strategy recommends primary prevention programs targeting physical activity, nutrition, obesity, diabetes, sodium intake, hypertension, tobacco, HIV/AIDS and workplace wellness (National prevention Strategy, US National prevention Council, June 2011)

Unfortunately there have not been similar economic modelling analyses conducted in Canada, but it can be assumed that the results would be similar. To these may be added programs directed more broadly at the social and economic determinants of health such as early child development, education, social housing, improved incomes, housing, food security and safer environments.

Given the challenges presented by constantly rising health care costs, it will be important to bring this evidence into health care policy. The message seems clear: invest more in primary prevention.

Over the next 5 years the funds from the Canada Health Transfer (approximately $30 B annually, about 25-30% of provincial health care programming) will continue to increase at the rate of 6% a year. While government will continue to manage competing priorities for new expenditures, the analysis above points to

the need to invest more in primary prevention and public health. As discussed below, this will be most effectively achieved by better integration of primary care with public health and community based care (home care, long term care). At present, expenditures on public health are estimated to be about 2-3% of provincial health spending; this should rise to 5-6% in the next 5 years in order to reduce the burden of chronic disease and 'bend the curve' of rising health system expenditures.

Recommendations for Action

A. Primary health care transformation

Primary health care (PHC) as a sub-component of the overall health system can be considered a complex adaptive system (CAS) (Institute of Medicine 2001). One important principle for creating positive change in a CAS is to have a clear vision articulated by leadership. The following is a distillation of vision statements from Canadian and international leaders:

> Primary health care has as its purpose the improvement of the health of the population and the reduction of health inequities. It does this through the delivery of comprehensive health services that promote, preserve, protect, improve and restore the health of *individuals* and *communities* and provide compassionate care for those who are disabled or dying. It advocates for and takes action on the social and economic determinants of health. Fundamental to PHC are positive relationships between health care providers and patients, between various health care professionals and between the community and the providers. (World Health Organisation 1978, Health Canada 2003).

Recent analyses show that this vision can best be realized through the integration of population and individual interventions in a transformed PHC system (Drummond, Ballem, etc.).

Another principle for inducing positive self-organizing behaviour in a CAS is to identify and apply the 'simple rules' that lead the system in the right direction (Institute of Medicine 2001). There is now extensive evidence and consensus to

suggest six 'simple rules' or *basic requirements* for the accelerated development of a community-oriented PHC system in Canada (Suter et al. 2009):

1. PHC organisations serve a geographically defined population; providing
2. Comprehensive services that include health promotion, health protection, prevention and clinical care; through
3. Integrated interprofessional teams: including public health professionals, community care and social agencies as well as family physicians, nurses, nurse practitioners, pharmacists and many others. This may be best achieved through development of facilitated networks (Christansen 2009).
4. Aligned financial incentives: blended payment model.
5. Electronic data systems: electronic health records (EHR) and population data systems; quality improvement programs.
6. A governance structure that provides for the people being served to have a voice in PHC quality improvements and for providers to be accountable to those being served; and promotes a culture that is focussed on positive, cooperative relationships between and among providers, patients and the community.

There are many potential barriers to fulfilling all these basic requirements:

1. Serving a geographically defined population. This would have to be phased in gradually to account for the fact that patients move between jurisdictions. However, when considering the intent to work collaboratively on the social determinants of health, a PHC would need to have a relationship with community organisations: municipalities, school boards, police, faith groups, the business community and NGOs (the recently formed Family Practice Divisions in BC could be important components).

   There are 'populations' within a geography deserving of special consideration: those with complex chronic illness, the frail elderly and those who are socially and economically marginalized.

2. Delivering comprehensive services including health promotion, protection and prevention will require a much closer alignment between professionals oriented toward individual services (e.g. family physicians, nurse practitioners) and those with a population and public health focus (e.g. public health practitioners). There are many issues that could arise including concerns about resource allocation and conflicting objectives. Agreeing on a common vision and planning process could mitigate these concerns. It will also be important to ensure that population focussed personnel are supported with increased resources and are not drawn into responding to crises in acute care. In some jurisdictions such as the UK, public health financing has been 'ring-fenced' to facilitate integration with primary care.

3. Developing integrated interprofessional teams has several potential issues: professionals may not want to change their roles or work more closely with others because of threats to professional autonomy, status and remuneration. Experiences from high performing systems shows that these concerns can be overcome (Baker and Denis 2011) and leading Canadian professional organisations have supported this approach (College of Family Physicians of Canada 2009).

4. Moving to a blended payment system, particularly for family physicians may be resisted but in many jurisdictions, including Ontario, a significant number of physicians have adopted this model (Hutchison et al. 2011).

5. The implementation of an EHR across Canada has been challenging despite the expenditure of billions of dollars. Some experts believe that taking a more decentralized approach to EHR development may offer more likelihood of success (Greenhalgh et al. 2010; Webster 2011).

6. A governance system is needed that will allow the people being served (the geographically defined population) to express their needs for primary health care and preventive service improvements and for the provider organisations to periodically report on expenditures and outcomes related to services provided. There could well be a lack of political will to create

such governing bodies. However, in some jurisdictions such as Sweden, the UK and the US, this has been done (Baker and Denis 2011). Facilitated networks that provide integrated fixed-fee clinical services (such as Kaiser Permanente in the US) have been recommended as a 'disruptive innovation' for consideration as an appropriate business model for the better prevention and management of chronic disease (Christansen)

Despite these challenges, new PHC models that integrate primary care and public health (Breton et al. 2009, Baker and Denis 2011) are being implemented in Canada, Finland, Sweden and the US. With the funding and stimulus of the 2014 Health Accord provinces could be encouraged to implement forms of primary health care delivery incorporating all the 'basic requirements' for PHC transformation.

Now that the Harper government has clarified the funding arrangements for the 2014 Health Accord, the Federal Health Minister, the Hon. Leona Aglukkaq has called upon the PT Health Ministers to work cooperatively to achieve a more sustainable and accountable health care system and to 'work on an approach to measuring and reporting performance across health systems using common metrics'. (Letter to PT Ministers, Dec 19, 2011)

Recommendation 1: Develop PHC indicators and data as a basis for annual reports by the Health Council of Canada on progress being made in integrating and improving the performance of PHC across Canada.

The priority action now is to set up a process with the federal government including the Canadian Institute for Health Information, Accreditation Canada and the Health Council of Canada (as well as the CMA, CNA, CPHA, CHSRF, CDM, Canadian College of FPs, etc.) and the provincial governments to agree on a set of indicators and databases to track performance and regularly report on progress in implementing the six 'basic requirements' for primary health care transformation outlined above.

Recommendation 2: Increase resources for system change and in particular, public health and the primary prevention of chronic disease.

B. Developing healthy public policies outside of health care

There are two broad areas of public policy that are of critical importance in reducing the burden of chronic disease: first, obesity reduction and second, the 'causes of the causes' of chronic diseases- the social and economic determinants of health and health inequities.

B (1) Obesity reduction

The prevalence of overweight and obesity has doubled over the past decades and is causing much more chronic disease: hypertension, diabetes, heart disease, stroke, kidney failure, blindness, arthritis and other musculoskeletal problems, liver disease and mental health problems as well as lost productivity.

The obesity epidemic has been caused by changes in the food supply driven by ill-informed agricultural policies (cheap carbohydrates/sugar) and highly effective but unhealthy marketing of products that are rich in calories but poor in nutrients and by a more sedentary lifestyle because of poor community design, dependence on motor vehicles and time spent in front of TVs and other electronic screens.

The complex intersectoral process for taking action to reduce the burden of chronic disease related to obesity is now well understood and has been considered by the Select Standing Committee on Health in the past. Unfortunately there has not yet been an adequate response by the various sectors involved.

Recommendation 3. Develop a comprehensive intersectoral provincial strategy to improve nutrition, physical activity and healthy weights.

A comprehensive intersectoral obesity reduction strategy should be led by the provincial government in concert with the private sector and the federal government as well as local government, NGOs, professional groups, schools, workplaces and businesses. It should include the following:

1. Improved nutrition:

    a. Reducing overall calorie intake through such measures as improved nutrition information of food packaging and at point of purchase (restaurants), increased sales taxes on sugar sweetened beverages and restrictions on advertising unhealthy foods (particularly to children).
    b. Increasing access to healthy foods: school food programs, farmers markets, community gardens
2. Physical activity:
    a. School based programs – daily physical activity, education to reduce screen time
    b. Increased opportunities for physical activity – healthy built environments – sidewalks, parks, bike lanes, recreation facilities, density, safety
3. Comprehensive community programs such as the French EPODE (Together Preventing Obesity)and US CATCH (Coordinated Approach to Child Health) programs; workplace wellness programs.
4. Clinical interventions – counselling, technical interventions.
5. Monitoring, reporting

<u>B (2) 'Causes of the causes' of chronic disease</u>

Families that cannot afford the basics in life experience a much higher prevalence of almost all chronic diseases but particularly obesity, diabetes, hypertension, heart disease and stroke. The reason for this is that if families cannot buy healthy food, have inadequate housing, live in unhealthy environments, cannot access child care and good education, are frequently under employed, have little time or energy for recreational activities and cannot access effective health care services they are more likely to develop a chronic condition because of the material deprivation and stress that they experience.

It will be impossible to reduce these health inequities and the overall burden of chronic disease without addressing these 'causes of the causes'. Current evidence shows that in BC we continue to lag behind in this area (Progress Board, Campaign 2000). In other provinces and jurisdictions progress has been made through government leadership in developing an organized plan to increase jobs and wages, reduce poverty and promote prosperity, support child care, expand social housing and provide education and training to encourage employment and working conditions.

Recommendation 4: Develop a comprehensive intersectoral provincial strategy (with goals, indicators and accountability) to Improve prosperity and help all families provide the necessities of life for their children (nutritious food, housing, clothing, transport, care and education, healthy environments)

More than health care sustainability to be gained

The implementation of the above recommendations will not only reduce the burden of chronic disease and help to 'bend the curve' of health care expenditures. It will also improve the overall health of the population and hence reduce absenteeism in the workplace and in schools and so contribute to productivity and economic growth. Moreover, those families who are most disadvantaged will have more opportunities to become healthier both physically and economically – this will contribute to improved economic and political stability.

Summary

To sustain the publicly funded health care system measures are needed to reduce the burden of chronic disease. This will require two complementary and interconnected strategic approaches:

1. The transformation of primary health care through the better integration of primary care with public health and community health services by implementing 6 basic requirements:
    - Geographically defined populations served
    - Comprehensive services integrated with public health
    - Interprofessional teams
    - Electronic data systems
    - Blended payment systems
    - A governance system to enable community involvement

    Recommendation 1: Develop PHC indicators and data as a basis for annual reports by the Health Council of Canada on progress being made in integrating and improving the performance of PHC across Canada.

    Recommendation 2: Increase resources for system change and in particular, public health and the primary prevention of chronic disease.

2. Healthy public policies outside of health care

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    The implementation of these recommendations will reduce the burden of chronic disease and the costs of health care and ensure the sustainability of publicly funded health care in BC.