

# **Investing in Heart and Brain Health**

Protecting our children's health, supporting  
research and building Indigenous health  
capacity

**2017 Pre-budget submission**

**August 5, 2016**

## About Us

The Heart and Stroke Foundation (HSF) is a national volunteer-based charity led and supported by more than 125,000 volunteers and over 1.4 million donors. The HSF aims to prevent disease, save lives and promote recovery. Since our inception, we have funded more than \$1.45 billion in research across the country thanks to the generous donations of Canadians. We also fund health promotion programs, including CPR training programs, blood pressure public awareness and screening, as well as public awareness campaigns on the warning signs of stroke, smoking reduction, limiting sugar consumption and much more. We are committed to build capacity and close the gap in heart disease and stroke among Indigenous populations in Canada.

## Overview

The HSF is proposing to work with the federal government to adopt a manufacturer's levy on sugary drinks, increase heart disease and stroke research funding and invest in Indigenous health capacity.

### 1) *Protecting our Children - a Manufacturer's Levy on Sugary Drinks*

Canadians consume too much sugar – well above HSF and internationally recommended levels. Excess sugar consumption is associated with adverse health effects including heart disease, stroke, obesity, diabetes, high blood cholesterol, cancer and dental caries (cavities) – costing the health system billions of dollars annually. Sugary drinks are the single largest contributor of sugar in the diet.

#### **Recommendation**

**The federal government should adopt a manufacturer's levy on sugary drinks. This should be an excise tax, based on volume, and increase in rate according to the amount of free sugars per unit in the drinks.**

A federal levy of 5 cents per 100 ml on soft drinks could raise \$1.8 billion in tax revenue annually, representing a solid source of government revenue. This figure could be substantially higher if the tax covered the full spectrum of sugary drinks, including fruit juices. Annual revenue generated from a sugary drinks tax could be invested to help Canadians lead healthier lives, including supporting a national healthy lunch program for students, subsidizing the cost of vegetables and fruits and ensuring safe drinking water for Indigenous communities. These are critical heart-health investments.

A standard sized soft drink can (355 mL) contains about 40 grams (10 teaspoons) of sugar – representing almost the recommended intake limit for a day. Adopting a sugary drink tax conveys a message of risk to the public which can help change public attitudes towards a harmful product and reduce consumption. In Canada, sugary drinks are linked to 1,600 deaths annually.

As with other harmful products like tobacco, price disincentives can be used to steer consumers away from sugary drinks. Research suggests that a 20% rise in the price of sugary drinks could reduce consumption by 24%. Jurisdictions around the world including Mexico, Finland, Hungary, France, the UK, Philadelphia and many others have or are in the process of implementing sugary drink taxes.

There is strong evidence supporting the efficacy of sugary drink taxes. In Mexico, the 1 peso/ounce excise sugary drink tax is associated with as high as a 12% reduction in sugary drink purchases. The effect of the tax was greatest (17% reduction) among low income households showing that the tax reaches those high risk groups that often have the highest consumption levels. High sugary drink consumption contributes to increased risk of disease and in turn poverty. In this respect, a tax is a health progressive intervention.

HSF recommends an excise tax on manufacturers that would result in a minimum 20% increase in the price of sugary drinks. The tax should have several tiers based on sugar content in order to encourage manufacturers to reformulate and reduce sugar content.

## **2) *Investing in Science to Protect Canadians' Heart and Brain Health - Increasing Heart Disease and Stroke Research Funding***

The HSF was very pleased that the government committed \$5 million in Budget 2016 for women's heart research. This is a great first step. However, without an increased and sustained investment in other important research areas, we will continue to lag with negative consequences.

### **Recommendation**

**That the federal government invests \$30 million/annum in heart disease and stroke research in five areas: heart failure, Indigenous health, stroke/dementia, creating capacity among early investigators and promoting nutrition. These investments will support the best researchers in Canada.**

The HSF has a track record of funding world-class research that creates highly skilled jobs for Canadians. We are proud of the HSF's research peer review system – it is highly cost-efficient and effective. HSF also has a tradition of working with CIHR and the leading universities and hospitals to fund the best researchers. HSF is currently in the process of implementing a new integrated research investment strategy that will foster interdisciplinary research.

Unfortunately, Canada continues to fall behind in high impact heart disease and stroke research. Applications to CIHR in all fields of research have increased by 110% between 2000 and 2010, yet in cardiovascular research they only increased by 22%. In addition, the number of postdoctoral fellows in cardiovascular research decreased by 50% between 2002 and 2010. We need more investment to encourage, attract and retain young researchers.

This investment is an economic stimulus opportunity and will create high quality, well paying jobs. It is an investment in the knowledge economy that will have positive multiplier effects on the broader economy. The return on investment of this type of initiative is estimated at 21-39% per annum in perpetuity, through improved health outcomes, reduced treatment costs and economic gains. It will help Canadian researchers commercialize and translate their research into new treatments and technologies, and boost high-value economic activity.

A \$30 million/annum federal investment has the potential to not only benefit Canadians with heart disease and stroke, but also those living with a host of other chronic diseases that share common risk factors such as diabetes, dementia and kidney disease. Reducing the incidence and severity of these diseases would also help our economy by slowing the enormous growth in health expenditures.

The federal government should work with the HSF and its partners to invest in the following research initiatives:

### **Heart Failure: \$10 million**

It is estimated that 1 in 5 people over the age of 40 will develop heart failure. From the time of diagnosis, up to 50% of patients will die within five years. It is a leading cause of hospitalization costing the economy \$2.3 billion annually. An investment of \$10 million/annum will allow HSF to partner with the University of British Columbia, University of Alberta, University of Calgary,

University of Toronto, University of Ottawa Heart Institute and Montreal Heart Institute - with the potential to expand to other centres across Canada - to develop and implement a comprehensive heart failure research program. This program would also leverage existing efforts to support home care under the federal government's Health Accord.

## **Indigenous health: \$5 million**

Indigenous health research funding in Canada is insufficient, there is a lack of understanding regarding the heart-health needs of Indigenous communities and insufficient Indigenous researchers. Indigenous health research needs to be participatory and not just involve Indigenous people being studied by others. We must address systemic barriers, including research funding eligibility requirements that prevent Indigenous peoples, such as elders and community researchers from participating in research. In order to improve Indigenous health research capacity, the HSF proposes to work with Indigenous organizations/peoples and the federal government to:

1. **Develop a process:** This would entail national consultations led by Indigenous people involving Indigenous researchers, Indigenous health organizations and the broader research community.
2. **Develop a framework:** This framework would be the outcome of the above noted process. It would address a host of issues, including systemic barriers, eligibility requirements, culturally appropriate mechanisms to build Indigenous capacity to collect, access and generate health trends data, and the training of Indigenous early investigators by experienced Indigenous health researchers, etc.
3. **Create demonstration opportunities:** The above framework would inform the development of demonstration opportunities which would serve as a real-life model for the creation of Indigenous health research capacity.

## **Stroke and Dementia: \$5 million**

Stroke can be a highly disabling disease, currently 405,000 Canadians are living with the effects of stroke. There are an estimated 564,000 Canadians living with dementia. By 2031, this number is expected to rise to 937,000 (66% increase). Patients with stroke and dementia often share the same vascular risk factors including high blood pressure, high cholesterol, diabetes, as well as unhealthy behaviours such as physical inactivity, poor diet and tobacco use. Stroke is now understood to be a powerful predictor of dementia – in fact at least one third of dementia risk can be attributed to stroke. An investment in this area would support research to further clarify the nature of this link and how we could prevent, screen, diagnose and better manage stroke-related dementias. It would be consistent with efforts to address mental health via the Health Accord process. It would include support for accomplished scientists, build a cohort of early investigators and create a national Centre of Excellence.

## **Capacity Building Research Initiatives: \$10 million**

Cardiovascular research is falling behind in Canada. We cannot afford to lose our researcher talent pool. A \$10 million investment will create capacity for the future. For example, in 2014, the HSF introduced the Emerging Research Leaders Initiative (ERLI), a collaboration between NGOs, private sector and academia, with success. It is a multi-partnered capacity-building initiative for researchers transitioning from their academic studies to professional careers.

## **Research to Promote Nutrition: \$5 million**

Poor nutrition can lead to high blood pressure, obesity and can drastically increase the risk of developing heart disease and stroke. Approximately 60% of Canadian adults are overweight or obese, and 60% do not consume the recommended daily servings of vegetables and fruits. This

nutrition research investment would support: the updating and expansion of Canada's only independent and comprehensive database for nutrient level information, along with the development of supportive consumer tools; population based public policy research; research into consumer behaviour and the best ways to promote healthy diets. This will include funding for a national Centre of Excellence with a mandate to establish links internationally and across sectors, as well as two Research Chairs.

### **3) *Partnering with Indigenous communities to build capacity among Indigenous peoples to improve their health***

In Canada, we are facing a health crisis among Indigenous peoples. Heart disease rates are up to two times higher among Indigenous peoples compared to the non-Indigenous population. Rates for almost all chronic diseases and health conditions are higher among Indigenous populations largely as a result of inequities.

#### **Recommendation**

**That the federal government invest \$10 million to empower Indigenous youth in First Nation communities through CPR and AED training and \$5 million to improve Indigenous peoples capacity to access nutritious food and safe drinking water.**

With the leadership of Indigenous organizations, the HSF proposes to empower Indigenous youth through a Grade 8 AED/CPR training program in Indigenous communities (\$10 million). This will provide Grade 8 students with a concrete skill and broader knowledge of heart health, contributing to the development of individual capacity and empowerment. It will contribute to community capacity through the training of local CPR instructors using a train-the-trainer approach. This would also promote economic sustainability through instructor small business development and provide AEDs in those communities that do not have them.

With the leadership of Indigenous organizations, HSF also proposes to improve Indigenous food security and access to safe drinking water (\$5 million). This would entail developing greenhouses and new technologies to grow fruits and vegetables in a sustainable manner. It would also support Indigenous capacity to help implement the federal government's safe drinking water commitment from Budget 2016. Lack of access to clean potable and affordable drinking water continues to be a challenge for many Indigenous communities – it also facilitates the consumption of sugary drinks. We know that sugary drinks are associated with a range of health issues, yet they are affordable, easily accessible and seen by many as the best option to replace fruits and water.