PUTTING HEALTH FIRST, MAKING HEALTH LAST

Heart and Stroke Foundation of Canada/CIHR Institute of Circulatory and Respiratory Health Chair in Hypertension Prevention and Control

Dr Norman Campbell
Dr Norman Campbell is an independent researcher who is funded by the Heart and Stroke Foundation of Canada, the country’s most widely-recognised and trusted authority on cardiovascular health. Here, he discusses innovative approaches to tackling widespread hypertension, as well as how he connects his work to the Foundation’s ongoing mission to prevent disease, save lives and promote recovery.

Can you first give a brief overview of your current roles?

I am the Heart and Stroke Foundation of Canada (HSFC)/Canadian Institutes of Health Research (CIHR) Chair in Hypertension Prevention and Control. This Chair is an award granted by HSFC and CIHR and I have independence in my role to develop policy and advocacy initiatives.

A significant part of this work involves the creation of strategies and partnerships that can significantly increase Canadians’ awareness of high blood pressure, decrease its incidence through prevention strategies and improve the overall management of the disease.

This can be achieved by: identifying gaps in translation of research knowledge – from evidence to practice – for hypertension prevention, treatment and control, and developing and evaluating new policies, programmes and interventions aimed at reducing the burden and/or impact of high blood pressure.

My role is a leadership position: I lead non-governmental organisations (NGOs), seeking to align NGOs and government organisations in the prevention and control of hypertension in Canada. This is guided by a hypertension framework, which is essentially a national strategy for hypertension prevention and control, which was developed in 2011 and updated in 2012.

Additionally, I am the current President of the World Hypertension League (WHL) – a group of national hypertension organisations. I also co-Chair vs Chair the Pan-American Health Organization-World Health Organization (PAHO-WHO) Expert Group, which addresses salt reduction.

The mission of HSFC is to prevent disease, save lives and promote recovery. How is this mission brought to life by the organisation’s Strategic Plan?

HSFC’s Strategic Plan, Making it Happen Together, is the guide to focus the Foundation on the areas where it can have a profound and substantial impact through goals, priorities and activities that will deliver results. Through the Strategic Plan, the Foundation will tangibly improve the lives of Canadians.

The Foundation’s Strategic Plan focuses on two bold, measurable impact goals that will lead HSFC to achieve its vision of ‘Healthy lives free of heart disease and stroke’. Together we will make it happen. Everything the Foundation does will drive towards the achievement of these goals and it will measure its progress against them.

Hypertension is the leading risk factor for stroke, as well as a major risk factor for heart disease. Can you discuss high blood pressure and how salt and diet are implicated?

According to WHO, increased blood pressure is currently the leading risk factor for death and disability globally. It is responsible for just over half of stroke and about half of heart disease cases, and is also a major contributor to dementia, kidney disease and other vascular diseases around the body. Globally, 9.4 million deaths each year – almost 18 per cent of all deaths – can be attributed to high blood pressure.

High blood pressure is largely caused by factors associated with industrialisation – increased blood pressure and hypertension would be rare in a hunter-gatherer society. Evidence shows that, globally, approximately 30 per cent of hypertension is caused by increased dietary salt and about 20 per cent by low dietary potassium (which translates to low fresh fruit and vegetable intake in the diet). Around 20 per cent is due to lack of physical activity, and about one-third can be attributed to excess body weight.

Much of the focus on hypertension in Canada is on how we can increase healthy eating at a population level, and one of the primary efforts focuses on dietary salt. Around 77 per cent of the salt we consume is put into our diets in the processing of foods – either packaged foods, restaurant meals or fast food. Significant efforts are aimed at trying to work with industry to encourage them to add less salt to food. In

By 2020, HSFC will significantly improve the health of Canadians by decreasing their risk factors for heart disease and stroke by 10%
addition, educating health professionals and patients to encourage them to reduce salt intake and avoid unhealthy food is crucial.

There are a number of initiatives/strategies for governments to put in place: either a regulatory approach or a strong policy approach to oversee industry reducing the amount of salt they’re adding to food. This could include the placing of sodium counts in restaurant menus and in low-sodium food procurement policies for public institutions. Additionally, it should include an evaluation/monitoring plan to ensure salt intake is actually being reduced in Canada.

HSFC has challenged itself to reduce deaths from heart disease and stroke by 25 per cent by 2020. As a hypertension Chair whose research is supported by the Foundation, how do you intend to address this objective in your work?

There are several things embedded in this. One of the first is to recognise that in the early 1990s, Canada had just 13 per cent treatment and control in hypertension. A very comprehensive hypertension education programme was developed to increase this figure and the control rate subsequently grew to 66 per cent in 2007, with corresponding major reductions – greater than 25 per cent – in death and hospitalisation from heart failure, heart attack and stroke.

There is still some leeway to improve death rates from cardiovascular disease by enhancing hypertension management, but much of the heavy lifting through improving control has already been done within the health sector in that, of those diagnosed with hypertension in Canada, 95 per cent are already treated and a high proportion are already controlled.

17 per cent of hypertension remains undiagnosed. Many undiagnosed individuals are not within the healthcare system; younger people who are in the workforce but don’t visit healthcare professionals, for example. So in Canada, we are developing innovative programmes to support more blood pressure screening in the workplace and within communities in order to help try to identify those with high blood pressure.

The other major mechanism is to work to reduce the population’s blood pressure; this will have a marked effect in reducing the prevalence of hypertension in Canada, as well as improving hypertension control. It is important to note that if we want to remain a world leader in prevention and control, we need to look to and incorporate the best practices globally.

What are some Canadian partnerships that are contributing to the advancement of your research?

I am the Chair of Canada’s Hypertension Advisory Committee, a coalition of 12 national health organisations, including HSFC. The committee works on the hypertension strategy and develops supporting policy and advocacy initiatives, as well as mechanisms to disseminate this information to Canadian healthcare professionals and the public.

The Committee is developing policies to improve the diets of Canadians and prevent and control hypertension, including restricting the marketing of unhealthy foods to children and encouraging the sales of healthy foods and beverages. It is also examining a policy statement regarding fiscal policies for healthy eating which would include subsidies on healthy food and beverages, the taxation of unhealthy food and beverages, and labelling policies to make healthy foods easily identifiable.

HSFC’s Mission

• Preventing disease by promoting healthy behaviours among children, youth, adults and families to reduce the number of people who develop heart disease and stroke

• Saving lives by working to make faster, better response and treatment for cardiac emergencies and stroke a reality for all Canadians

• Promoting recovery for survivors by partnering to enhance support for survivors and caregivers

How have techniques to detect hypertension evolved over the years?

In a country like Canada, which has a very well-developed and funded healthcare system, the vast majority – 75 to 80 per cent of Canadians – will see a healthcare professional within a year. Therefore, initial efforts were highly focused on getting healthcare professionals to measure blood pressure at every visit and it was thought that this would deal with the vast bulk of the problem.

The Canadian Education Hypertension Programme was one of the major foci and resulted in our moving from a situation where just over half of the population were aware of whether they had hypertension, to awareness in over 80 per cent of those with the condition. We have emphasised the need for regular assessments for blood pressure. There’s the understanding that even if you don’t have hypertension this year but are close to the level, especially if obese, you are at risk of developing hypertension within a few years.

One challenge is that not everyone visits or enjoys visiting a healthcare professional. A community-based blood pressure screening programme, one of the major goals of which is to establish widespread screening in pharmacies, sought to address blood pressure measurement among those who don’t regularly visit a healthcare professional. Nearly every pharmacy in Canada has a blood pressure measuring device which electronically records the blood pressures on a card for the patients to bring to their physician. There are specific screening programmes within pharmacies – either volunteer-based or healthcare professional-based. Some programmes engage the pharmacist in the management of hypertension – in some areas of Canada the pharmacist can diagnose and treat hypertension in collaboration with the healthcare professional.

In Calgary, the city where I work, every fire station is open to the public between 1 and 9 pm and fire fighters are trained to measure blood pressure. They provide patients with referral sheets and
blood pressure readings which they can take to their healthcare professional. This Calgary screening programme has been adopted elsewhere too, with the support of HSFC.

We’re hoping to develop programmes for screening for blood pressure in workplaces, and if an employee’s blood pressure is high, it might be possible to manage it with the aid of a nurse clinician or a pharmacist, onsite.

What is the importance of identifying gaps in the translation of research knowledge?

Canada has developed a comprehensive evaluation system which identifies and addresses whether Canadians have been diagnosed, treated or controlled. These models are largely aimed at the general Canadian population.

There may be regions of the country and people living in vulnerable situations which haven’t been adequately represented in current evaluation surveys. This is one of the gaps, and the solution is to alter some of these surveys to oversample vulnerable populations and ensure that our interventions are appropriately targeted.

We believe it is very important to share best practices from different countries by looking at the kind of interventions that are going on in a specific country and how they can be adapted to your own country. Paradoxically, some of the best ideas may come from developing countries where there are low-resource situations – this permits us to explore inexpensive innovations that could be translated to developed countries and lower our healthcare costs.

Having raised and invested more than CAD $1.39 billion in leading-edge heart disease and stroke research, how does the Foundation procure financial support?

The support of donations from approximately 2 million Canadians annually makes it possible for HSFC to prevent disease, save lives and promote recovery, helping more Canadians live longer, fuller lives.

HSFC’s corporate partners also support the Foundation in its efforts to eliminate heart disease and stroke.

As one of Canada’s largest and most effective health charities, to what can the Foundation attribute its success?

Since 1952, HSFC has been working to reduce the toll of heart disease and stroke and tangibly improve the health of all Canadians.

Over this period, the death rate from heart disease and stroke in Canada has declined by more than 75 per cent, largely due to research advances in surgical procedures, drug therapies and prevention efforts. This decline has resulted in 1.6 million lives saved in Canada, including 165,000 survivors just this last year. The Foundation – thanks to the support of its countless donors and volunteers – has played a significant part in those advances.

HSFC is supported by donors, volunteers, researchers and partners. They are the reason its work has come so far, and together they will continue to push towards achieving the Foundation’s vision. They have the priorities, focus and passion to succeed, putting more years in our lives and more life in our years.

HSFC seeks to achieve its mission and bring it to life by:

- Investing in life-saving research
- Advocating for healthy public policies
- Partnering with key stakeholders
- Engaging Canadians to ‘Make Health Last’
- Ensuring health equity – recognising the diversity of Canada’s population and meeting the needs of groups with a higher disease burden in an equitable way

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