

A PERFECT STORM

OF HEART DISEASE LOOMING ON OUR HORIZON

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2010 HEART AND STROKE FOUNDATION
ANNUAL REPORT ON CANADIANS' HEALTH



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A perfect storm

The Heart and Stroke Foundation's 2010 Annual Report on Canadians' Health warns that a "perfect storm" of risk factors and demographic changes are converging to create an unprecedented burden on Canada's fragmented system of cardiovascular care, and no Canadian young or old will be left unaffected.

"In a very short time, the face of heart disease in Canada has changed to include groups that have historically been immune to the threats of heart disease," says Dr. Beth Abramson, cardiologist and spokesperson for the Heart and Stroke Foundation. "But the combination of new groups at-risk of heart disease and the explosion of Canadians indulging in unhealthy habits across Canada have accelerated the impact of these threats, which are now converging and erasing the progress we've made in treating heart disease over the last 50 years."

The signs of this impending crisis are clearly evident. Between 1994 and 2005, rates of high blood pressure among Canadians skyrocketed by 77%, diabetes by 45% and obesity by 18% — affecting both younger and older Canadians. Moreover, even younger age groups are experiencing increases in risk: among those 35 to 49 years of age, for example, the prevalence of high blood pressure increased 127%, diabetes by 64% and obesity by 20% — all major risk factors for heart disease.

"Up to this point we've had a patchwork quilt of prevention and treatment initiatives aimed at addressing some, but not all, of the risk factors affecting Canadians," says Stephen Samis, Director of Health Policy, Heart and Stroke Foundation of Canada. "The magnitude of this problem has become so large, the only way forward is to implement a comprehensive, Canadian heart-health strategy that focuses on at-risk and disadvantaged populations, addresses the disparities between provinces and territories and integrates Canada's fragmented system of cardiac care services."

The at-risk and disadvantaged populations in Canada include: the unprecedented growing number of young Canadian adults who are obese and overweight; the largest cohort of Boomers (50 to 64 years) in Canada's history entering a stage where they are at a higher risk for heart disease; our Aboriginal peoples who are experiencing a full-blown cardiovascular crisis; more women entering their young adult years at higher risk for heart disease, which could overwhelm the healthcare system with an entire new generation of patients; and, some of Canada's fastest growing ethno-cultural communities who are pre-disposed to a heavier burden of risk factors and heart disease.

The changing face of Canada

"The face of heart disease has changed," says Dr. Marco Di Buono, Director of Research, Heart and Stroke Foundation of Ontario. "We can no longer operate under the current stereotypes. In this country, heart disease is not just a disease affecting older, Caucasian males."

At risk: young Canadian adults

Young people are beginning their adult lives with multiple risk factors for heart disease. Over the past 15 years, Canada has seen significant increases in overweight and obesity, high blood pressure and diabetes. It used to be thought that like heart disease and stroke, type 2 diabetes and high blood pressure, were "diseases of aging." These increases will translate into an explosion of heart disease in the next generation.

"There are more than 250,000 young Canadians in their 20s and 30s with high blood pressure. That's something we could have never imagined a decade ago. It's almost a doubling in 15 years," says Stephen Samis. "The real tragedy is that this is largely preventable."

"Canada is truly at a crossroads," says Dr. Abramson. "As a society we need to decide if we are going to invest in making our society more heart healthy so we can reduce our future risk, or would we rather continue to pay for a healthcare system overwhelmed by cardiac patients."

Self Reported Heart-Health Risk Factors, 2007/2008

Heart-Health Risk Factors (men and women)	20-34 years Number (% of age group)	35-44 years Number (% of age group)	45-64 years Number (% of age group)
Physical inactivity	3,073,677 (47.0%)	2,536,847 (52.9%)	4,634,481 (52.8%)
Overweight/ obese	2,520,852 (40.5%)	2,402,101 (51.5%)	5,005,943 (58.2%)
Smoking	1,922,684 (29.0%)	1,240,458 (25.6%)	2,062,001 (23.1%)
High blood pressure	164,431 (2.5%)	343,638 (7.1%)	2,043,771 (22.9%)
Diabetes	66,430 (1.0%)	130,563 (2.7%)	745,820 (8.3%)

Source: Canadian Community Health Survey 2007/2008

Among those 20 to 34 years of age, 3 million are inactive, 2.5 million obese, 2 million smoke, 164,000 have high blood pressure and 66,000 have diabetes. "It's disturbing to see younger Canadians with so many risk factors for heart disease and stroke," says Dr. Abramson.

Although Canadians are slightly more active, more Canadians are becoming overweight and obese, beginning in childhood and carrying over to their 20s and 30s. Moreover, current rates of overweight and obesity are based upon self-reported data. When people are measured directly, the prevalence of overweight is typically much higher.

Overall smoking rates are down, but it is disturbing that 20-year-olds continue to be Canada's heaviest smokers. They are setting themselves up for poor long-term health effects – it can take up to 15 years to reverse the damage caused by smoking. "We know that if a young person comes into hospital with a heart attack, they are more likely to be a smoker," says Dr. Abramson.

At risk: the aging population – Canadian boomers and beyond

In 2006, the Heart and Stroke Foundation warned about Boomers' poor heart health. Four years later, one in five adults 50 to 64 years of age has two or more of the major risk factors for heart disease: high blood pressure, diabetes, smoking and obesity.

"For decades the Heart and Stroke Foundation has funded innovative, life-saving research delaying premature death from heart disease," says Dr. Di Buono. "However, the large number of Boomers who need to prevent and manage their risk factors will put great strain on the healthcare system and turn back the clock on the gains we have made."

Further, by 2021 the number of older Canadians 65+ at higher risk for heart disease because of their age will increase to:

- Almost one in four residents of Newfoundland and Labrador
- One in five in Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan and British Columbia
- One in six in Alberta and Yukon
- One in 10 in the Northwest Territories (a 130% increase)
- One in 20 in Nunavut (a 77% increase since 2005)

Anticipated Growth in the Canadian Population ages 65+, 2005 to 2021

	% of population ages 65 and over		
	2005	2021	Relative Increase
Canada	13.1	17.8	35.9%
NFLD/LAB	13.1	23.1	76.3%
PEI	14.1	21.3	51.1%
NS	14.2	22.0	54.9%
NB	13.9	22.2	59.7%
QUE	13.8	20.4	47.8%
ONT	12.8	17.6	37.5%
MAN	13.5	17.6	30.4%
SASK	14.8	19.7	33.1%
ALTA	10.5	16.3	55.2%
BC	13.8	19.6	42.0%
Yukon	6.9	15.9	130.4%
NWT	4.7	10.8	129.8%
Nunavut	2.6	4.6	76.9%

Source: Statistics Canada



At risk: Canada's Aboriginal peoples

Current data suggest that on-reserve First Nations people have far worse overall cardiovascular health than the general Canadian population, and it is suspected that off-reserve Aboriginal peoples are similarly affected.

"This is an embarrassment for all Canadians," says Stephen Samis. "Our Aboriginal peoples are experiencing a cardiovascular crisis. Plus, there are still significant gaps in our knowledge and management of Aboriginal heart health." With the exception of Nunavut (where 84% of the population is, and will remain, Aboriginal), between now and 2017, the provinces and territories will experience dramatic increases in their Aboriginal populations. In Newfoundland and Labrador, the Aboriginal population will increase by 60%; other regions expected to experience significant growth include: Saskatchewan (51%), the Yukon (48%) and PEI (46%). By 2017, approximately one in five residents of Saskatchewan and Manitoba will be Aboriginal. This explosion will create significant challenges for heart-health services, particularly in rural, northern and remote areas.

Anticipated Growth in Canada's Aboriginal Population, 2001 to 2017

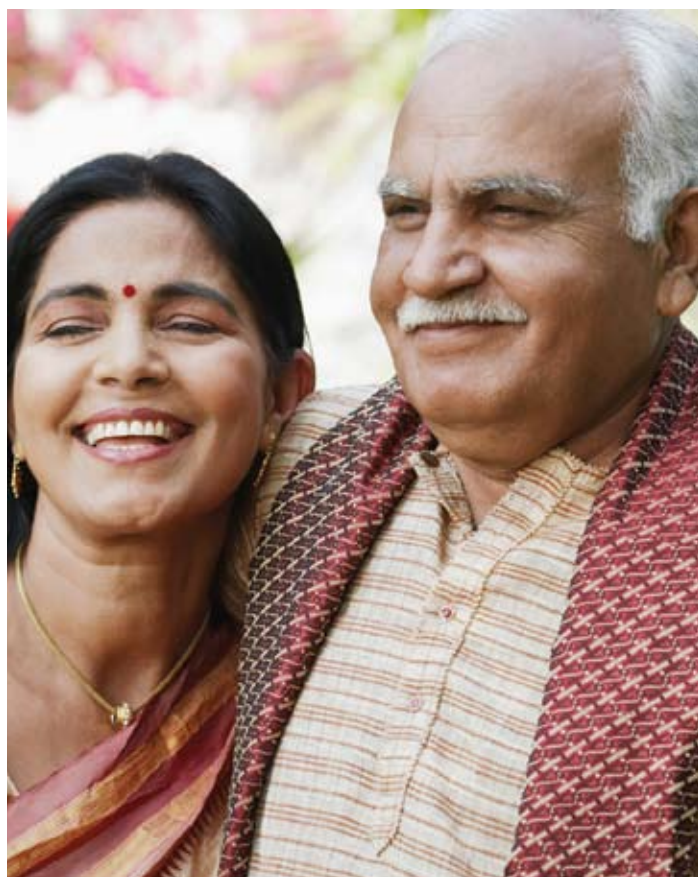
	% of population that is Aboriginal		
	2001	2017	Relative Increase
Canada	3.4	4.1	20.6%
NFLD/LAB	3.7	5.9	59.5%
PEI	1.1	1.6	45.5%
NS	1.9	2.8	47.4%
NB	2.4	3.0	25.0%
QUE	1.3	1.6	23.1%
ONT	1.8	1.9	5.6%
MAN	13.8	18.4	33.3%
SASK	13.8	20.8	50.7%
ALTA	5.5	6.3	14.5%
BC	4.4	4.8	9.1%
Yukon	23.8	35.3	48.3%
NWT	50.5	57.7	14.3%
Nunavut	84.3	83.6	-0.8%

Source: Statistics Canada

At risk: ethnic populations

Research has shown that Canadians of South Asian and African-Caribbean descent are at increased risk of heart disease and stroke because of higher rates of high blood pressure and diabetes. South Asian Canadians may be at particular risk as evidence suggests they may develop heart disease 5 to 10 years earlier than other ethnic groups. Provinces that currently have significant visible minority populations, such as B.C. (25%), Ontario (23%) and Alberta (14%) — and in particular major metropolitan, urban centres such as Vancouver (42%), Toronto (43%), Montreal (17%), and Calgary (22%) — are going to face a tremendous growth in the need for cardiovascular prevention and care as these growing populations age.

"Many of Canada's ethno-cultural communities are at higher risk for heart disease and have unique linguistic and cultural challenges to overcome with respect to improving their heart health. We need to address these challenges to ensure the long-term heart health of all Canadians, including new immigrants coming to this country," says Dr. Abramson.



At risk: women

Women are generally protected from developing heart disease until mid-life. But ultimately, heart disease is an equal-opportunity killer. More women in Canada die from heart disease and stroke every year than all forms of cancer combined. Unfortunately, young Canadian women are setting themselves up for a lifetime of poor heart health and laying the foundation for heart disease. Approximately 1.7 million women aged 20 to 34 are inactive. Almost 1 million are overweight. More than 800,000 smoke.

“These are the women we’ll see in cardiologists’ offices within this decade,” says Dr. Abramson. “It shouldn’t end that way, but it will. As a society, we need to support women at all ages in reducing their risk of heart disease.”



Self Reported Heart-Health Risk Factors, 2007/2008

Heart-Health Risk Factors	Women 20-34 years Number (% of age group)	Women Ages 35-44 years Number (% of age group)	Women Ages 45-64 years Number (% of age group)
Physically inactive	1,651,824 (50.9%)	1,307,535 (54.1%)	2,406,806 (54.0%)
Overweight or obese	927,058 (31.2%)	918,841 (40.0%)	2,189,341 (50.8%)
Daily or occasional smokers	807,238 (24.7%)	527,987 (21.7%)	952,460 (21.1%)
High blood pressure	65,239 (2.0%)	153,917 (6.3%)	1,016,475 (22.5%)
Diabetes	36,297 (1.1%)	59,275 (2.4%)	324,413 (7.2%)

Source: Canadian Community Health Survey 2007/2008



Provincial and territorial disparities

Adding to the perfect storm, troubling disparities persist between provinces and territories. Even provinces that rank in the top three in terms of healthy behaviours are still not where they need to be to maintain their future heart health. More than 50% of the population in every province and territory in Canada are at an unhealthy weight. In the majority of the provinces and territories, less than 50% of the population is getting enough physical activity to maintain their health. And only one province – Quebec – has more than 50% of the population eating the recommended amount of vegetables and fruit per day. With respect to smoking, all the provinces and territories achieve a passing grade, except Nunavut.

“This regional variation in heart healthy behavior is a wake-up call for the need to fund a comprehensive Canadian heart-health strategy,” says Dr. Marco Di Buono.

The numbers speak for themselves. Our experience with tobacco shows we can make a difference with a coordinated Canadian approach. We need to turn our collective attention to the other risk factors facing Canadians.



2007/2008 Ranking of Provinces and Territories on Heart-Health Behaviours

Province or Territory	Combined Health Behaviours Rank	Smoke-Free Rank (%)	Physical Activity Rank (%)	Healthy Weight Rank (%)	Adequate Vegetable & Fruit Consumption Rank (%)
BC	1st (best)	1st (81.8%)	2nd (53.7%)	1st (49.7%)	2nd (tie: 43.4%)
ALTA	2nd	4th (77.7%)	3rd (53.4%)	5th (42.9%)	2nd (tie: 43.4%)
ONT	3rd	2nd (78.7%)	6th (48.8%)	4th (43.6%)	4th (41.4%)
QUE	4th	8th (75.8%)	10th (tie: 45.7%)	2nd (46.8%)	1st (52.6%)
Yukon	5th	11th (68.2%)	1st (55.4%)	3rd (44.6%)	7th (38.7%)
MAN	6th	5th (76.7%)	4th (51.8%)	7th (40.4%)	9th (35.9%)
PEI	7th	3rd (78.8%)	8th (47.3%)	12th (36.5%)	8th (36.7%)
SASK	8th	10th (74.3%)	9th (46.1%)	8th (39.2%)	5th (tie: 38.8%)
NS	9th	7th (76.0%)	7th (47.6%)	9th (38.4%)	10th (35.8%)
NB	10th (tie)	6th (76.6%)	12th (42.7%)	10th (37.4%)	5th (tie: 38.8%)
NWT	10th (tie)	12th (64.8%)	5th (49.3%)	11th (36.8%)	12th (24.6%)
NFLD/LAB	12th	9th (75.1%)	10th (tie: 45.7%)	13th (33.3%)	11th (30.8%)
Nunavut	13th (worst)	13th (42.1%)	13th (40.5%)	6th (42.7%)	13th (24.2%)
National (Canadian) Average:		78.3%	49.0%	44.4%	43.8%

Source: Canadian Community Health Survey 2007/2008, age 12+ except for weight which is age 18+

Addressing the challenges/ weathering the storm

Canadians recognize there is a need for action to address the nation's heart health. Eight out of 10 supported a government-funded coordinated, national heart-health strategy, even if it meant cuts to other programs or a tax increase. When asked about specific issues within a national strategy, almost nine out of 10 Canadians pointed to the need to reduce childhood obesity, seven out of 10 cited programs to help people quit smoking and six out of 10 supported both women's heart-health programs and the need to ensure automated external defibrillators (AEDs) are available in public places.

What Do Canadians Think?	Canadian adults* (%)
Compared to 10 years ago, the health of Canadians is:	
• About the same	26%
• Less healthy	45%
In a national heart-health strategy, priority should be given to:	
• Reducing childhood obesity	86%
• Helping people to quit smoking	71%
• Women's heart health	64%
• Defibrillators in public places	60%
Support government funding of a coordinated, national heart-health strategy even if it meant cuts to other programs or a tax increase	81%

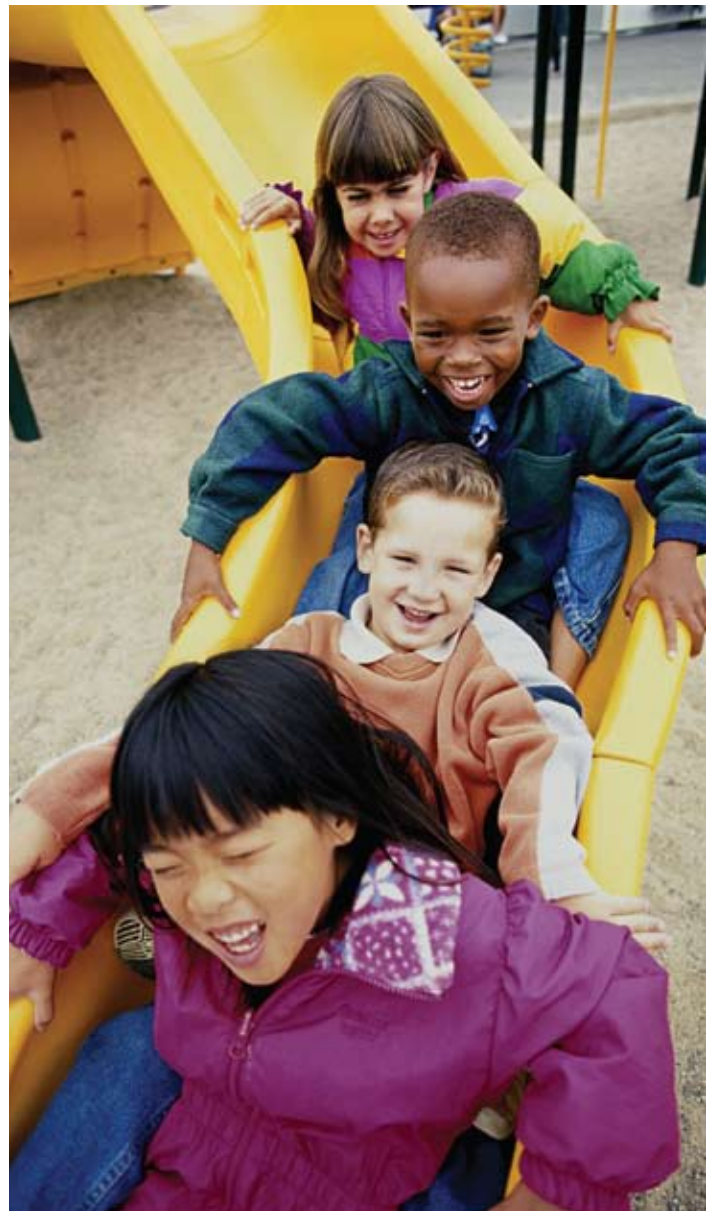
* Source: Heart and Stroke Foundation poll of 2000 Canadians age 18 and over; results are considered accurate within + 2.2%, 19 times out of 20

"The 2009 Canadian Heart Health Strategy and Action Plan sets out ambitious but achievable targets for the prevention and treatment of heart disease and stroke," says Stephen Samis. To reach those targets, the strategy includes recommendations to:

- Create heart-healthy environments.
- Help Canadians lead healthier lives.
- End the cardiovascular health crisis among Aboriginal/Indigenous peoples.
- Continue health services reform.
- Build knowledge infrastructures to enhance prevention and care.
- Develop heart-health human resources.

The Government of Canada has funded strategies for combating cancer, diabetes, lung disease and mental health — but there is no federally funded strategy for the number one killer of Canadians: heart disease and stroke. And Canadians agree that we need one for heart health.

"The Heart Health Strategy and Action Plan was released in February 2009, but has yet to receive funding," says Stephen Samis. "To ensure this strategy doesn't sit on the shelf and collect dust, we are calling on the federal government to provide funding for the heart-health strategy."



Call to action

To the Federal Government:

The Heart and Stroke Foundation calls upon the federal government to fund the comprehensive, coordinated Canadian Heart Health Strategy and Action Plan developed by cardiovascular experts.

Key priorities at this time are:

1. Improving the nutritional health of all Canadians and addressing the rising rates of obesity by:

- Implementing federal trans fat regulations.
- Mandating the placement of calorie counts on quick service restaurant menu boards.
- Standardizing the portion sizes on the Nutrition Facts Panel for similar products.
- Improving access to affordable, nutritious foods in remote and aboriginal communities.
- Supporting the Heart and Stroke Foundation and other organizations working on childhood obesity.

2. Improving cardiovascular awareness and prevention among women and reducing care inequities by funding public education initiatives, such as the Foundation's *Heart Truth* campaign.

3. Improving our understanding and management of cardiovascular health by:

- Funding the development and dissemination of best evidence-based clinical guidelines.
- Creating a Canadian multi-site centre in vascular health, to improve understanding of all vascular diseases such as heart disease and stroke, diabetes, Alzheimer's disease, chronic kidney disease and common forms of blindness.
- Enhancing the cardiovascular measures in the new, federally funded Canadian cancer cohort study.

4. Developing a multi-year action plan to meet the cardiovascular needs of Aboriginal people.

5. Increasing the availability of Automated External Defibrillators (AEDs) and Cardiopulmonary Resuscitation (CPR) training in communities across the country, including Aboriginal communities.

6. Providing specific strategies to help at-risk and disadvantaged populations understand and manage their heart-health risk.

To Provincial Governments:

1. Implement chronic disease prevention and management models to meet the cardiovascular needs of Canadians with multiple risk factors.

2. Improve access to high-quality, appropriate, coordinated cardiovascular care.

To Canadians:

- Be more physically active and eat a healthy diet. Go to heartandstroke.ca/healthyliving
- Be aware of your risk factors for heart disease. Take the My Heart&Stroke Risk Assessment™ at heartandstroke.ca/risk

Aboriginal Peoples (First Nations, Inuit, and Métis) – heartandstroke.ca/aboriginal

Canadians of South Asian Descent or African Heritage – heartandstroke.ca/multicultural

Women – thehearttruth.ca

www.heartandstroke.ca



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