

Heart & Stroke

Breakthroughs in heart and brain health: Research innovations and advocacy and health systems milestones

For release October 17, 2024

Top take-aways

- A new Heart & Stroke poll* has revealed that Canadians believe earlier identification and treatment of medical risk factors has made the biggest difference to improving heart and brain health over the last 70 years and should continue to be the top priority for continued improvement.
- A new Heart & Stroke poll has revealed that more than half of Canadians have been personally touched by heart disease and stroke, yet most are not aware that the death rate from heart disease and stroke has significantly decreased over the past 70 years.
- Research innovations and advocacy and health systems milestones over the past 70 years have improved heart and brain health including increased awareness, better risk factor management, and advancements in diagnosis, treatment and care.
- There is still more to do. We need to continue to raise awareness, improve prevention, diagnosis, and treatments, and enhance recovery to support heart and brain health.

Key messages

Canadians identified improvements in risk factor management, and better treatment and diagnosis of heart disease and stroke as the top areas that have improved heart and brain health over the past 70 years.

- According to our poll*, Canadians identified the following areas as having made the biggest difference to improving heart and brain health:
 1. Earlier identification and treatment of medical risk factors such as high blood pressure or high cholesterol (by half of Canadians).
 2. Better treatment for heart disease/conditions or stroke such as surgeries or medications (by more than four in 10 Canadians).
 3. Improved diagnosis for heart disease/conditions or stroke (by almost four in 10 Canadians).

The following additional areas were also noted (by three in 10 Canadians):

- Increased public awareness around recognizing and acting on medical emergencies such as heart attack, stroke and cardiac arrest
- Increased public awareness around prevention.

Going forward, the top three areas that Canadians indicated as priorities for further improving heart and brain health include risk factor management, access to healthcare, and treatment for heart disease and stroke.

- According to our poll, Canadians identified the following top three priorities for improving heart and brain health:
 1. Earlier identification and treatment of medical risk factors such as high blood pressure or high cholesterol (by more than one-third of Canadians).
 2. Better access to healthcare services including emergency services, in-hospital care, and primary care/family physician (by more than one-third of Canadians).
 3. Better treatment for heart disease/conditions and stroke such as surgical procedures and medications (by one-quarter of Canadians).
- The following additional priorities were also noted (by two in 10 Canadians):
 - Creating environments that help people make healthy choices.

- Improving diagnosis for heart disease/conditions and stroke.
- Developing tools that empower people to monitor/manage their own heart and brain health.
- More equitable access to prevention, diagnosis and treatment.

More than half of Canadians have been touched by heart disease or stroke.

- According to our poll, six in 10 Canadians have either personally experienced or had a close family member or friend experience heart disease or stroke.
- Currently more than 3.5 million people across the country are living with heart disease, stroke or related conditions.

Canadians believe more research is needed around heart disease/conditions, stroke and vascular cognitive impairment.

- According to our poll, Canadians are unanimous that research around heart disease/conditions, stroke and vascular cognitive impairment is important. Virtually all Canadians (99%) believe it is important that there be more research on heart disease/conditions, stroke and vascular cognitive impairment including their causes, diagnosis, treatment and care.

Canadians are not aware that the death rate from heart disease and stroke has significantly decreased over the past 70 years.

- According to our poll only two in 10 Canadians know the death rate from heart disease and stroke has decreased, half mistakenly believe it has actually increased, and one in 10 think it has not changed.
- When told the death rate for heart disease and stroke has decreased, more than seven in 10 Canadians underestimated how much it has decreased.
- Although the death rate from heart disease and stroke has declined 75% since 1950, together they are still the second leading cause of death in Canada and there still is much more to do to. We need to raise awareness, improve prevention, save more lives and enhance recovery for people living with heart disease or stroke and their caregivers.

For more than 70 years Heart & Stroke has invested almost \$1.7 billion in world-class research and has lead advocacy and system change efforts that promote health, save lives and enhance recovery.

- There have been improvements in understanding, treating and managing **risk factors** such as high blood pressure and cholesterol; **raising awareness** around heart and brain health as well as medical emergencies and actions to take; supporting people to live healthier lives by advocating for better **public policy** and **healthy environments**; developing and continually improving **medications** to manage risk factors and treat conditions such as: beta blockers, ACE inhibitors, statins, and clot-busting drugs; discovering and continually improving **diagnostics** and **new procedures**; supporting **recovery**; collecting and analyzing **data**; and **translating knowledge** to maximize the evidence collected, sharing it, and putting it into action.

Heart & Stroke has contributed to transformative advances including:

Transformative procedures

- The first successful open-heart surgery was performed in Canada in 1954 by Dr. Wilfred Bigelow paving the way for a revolution in cardiac care.
- In 1964 Dr William Mustard developed a surgical procedure to correct “blue baby syndrome,” a previously lethal heart defect.
- The first Canadian heart transplant surgery was performed in 1968.
- Using clot-busting drugs in 1999 to treat ischemic stroke — a breakthrough that increased by 30% a patient’s chance of having minimal or no disability three months later.

- Endovascular thrombectomy (EVT) is a lifesaving stroke treatment that quickly captures and removes clots and is now available in 25 hospitals across Canada. This 2015 research breakthrough can reduce death from stroke by 50%.

Ground-breaking discoveries

- **Blood pressure:** Dr. Adolfo de Bold discovered atrial natriuretic factor (ANF), the hormone that controls high blood pressure in 1980, sparking a revolution in blood pressure research. High blood pressure is the number one risk factor for stroke and a major risk factor for heart disease. About eight million adults in Canada are affected by high blood pressure, but it can usually be controlled through lifestyle and medication. However, treatment and control of high blood pressure has decreased over recent years, especially for women.
- **Cholesterol:** There has been a 34% reduction in the death rate from heart disease caused by high cholesterol between 1990 – 2019 due to research, improvements in the health system, medication (such as statins) and healthy public policy (such as driving trans fats out of the food supply). High cholesterol is one of the major controllable risk factors for coronary heart disease, heart attack and stroke. More than one-quarter of adults in Canada have high cholesterol.
- **Afib:** In 2014 a better way to detect atrial fibrillation (Afib) was developed. Afib is a type of irregular heart rhythm that can triple the risk of stroke but is treatable. Strokes caused by Afib are often more severe in women and women are more likely to die from Afib-related stroke.
- **Heart failure:** In 2019 a molecule linked to one in five cases of heart failure was discovered, creating potential for preventing this non-curable and often debilitating condition.
- **Congenital heart disease:** Dr. Lori West discovered in 2000 that, unlike adults, newborns are able to accept hearts from incompatible donors. Thanks to advances in technology and knowledge such as this, nine in 10 babies born with congenital heart disease now survive to adulthood.
- **ACE inhibitors:** In 2000 ACE inhibitors were discovered to significantly reduce the risk of heart attacks and strokes as these medications lower blood pressure and protect blood vessels.

Raising awareness and creating healthy environments

- **Smoking:** Smoking rates in Canada have decreased dramatically from 50% in 1965 to 12% in 2022 due to measures that support people being smoke-free such as smoke-free public places, taxation, plain packaging, health warnings, and cessation support. Tobacco use is the leading preventable risk factor for premature death and disability in Canada, killing 46,000 people annually. The tobacco endgame target is less than 5% tobacco use by 2035.
- **Healthy choices:** Measures that support all Canadians to make healthy choices including eliminating dangerous, heart-clogging trans fats from our food supply in 2017, revising the Food Guide in 2019, and in 2022 legislating mandatory front-of-package nutrition labelling on food and beverages (to be implemented in 2026).
- **Stroke:** The FAST signs of stroke campaign launched in 2014 to help more people in Canada recognize the most common signs of stroke and know to call 9-1-1 right away. By 2024 awareness of the signs has doubled.
- **Cardiac arrest:** Teaching people in Canada of all ages what to do if they witness a cardiac arrest: call 9-1-1, do CPR and use an AED.
- **Health inequities:** Raising awareness and driving the change needed to beat health inequities and ensure everyone including women, Indigenous people and other equity-deserving groups receive the care they need when it comes to their heart and brain health.

Tips and tools for preventing and managing high blood pressure and high cholesterol

Some factors that influence blood pressure and high cholesterol cannot be controlled such as age, ethnicity, family history and gender, but there are actions everyone can take to prevent and manage these conditions:

- Know your numbers – check or get your blood pressure checked regularly; and speak with your healthcare professional to see if you should get a blood test to check for high cholesterol.
- If you are diagnosed with high blood pressure or high cholesterol and prescribed medication, take them as prescribed.

The following behaviours are important for staying healthy and preventing and managing high blood pressure and high cholesterol:

- Be active for at least 150 minutes per week.
- Eat as healthy as possible including lots of vegetables and fruit, whole grains and protein foods and limit highly processed foods and avoid sugary drinks.
- Be smoke-free.
- If you drink alcohol, limit yourself to small amounts.
- Manage your stress.

Visit heartandstroke.ca for more information and resources.

Additional stats and facts

- Heart disease and stroke are the number one killer globally.
- In Canada, one person dies every five minutes from heart disease, stroke or vascular cognitive impairment.
- 70 years ago, cardiovascular disease was responsible for approximately half of all deaths in Canada.
- In 2022, heart conditions and stroke were responsible for 21.5% of all deaths in Canada.
- Nine in 10 people in Canada have at least one risk factor for heart disease, stroke or vascular cognitive impairment.
- As many as eight in 10 cases (or 80%) of premature heart conditions and stroke are preventable through healthy lifestyle behaviours.
- More than 3.5 million people across the country of all ages, ethnicities and genders are living with heart disease, stroke or vascular cognitive impairment.
- Heart conditions and stroke are the 2nd leading cause of death in Canada. **OR** Heart conditions and stroke are a leading cause of death in Canada.

*National, bilingual online poll of 2,005 Canadian residents 18 years and older, carried out June 25 – July 9, 2024 by Environics Research Group

Heart & Stroke social handles and links

Twitter

- **EN:** @HeartandStroke (<https://twitter.com/HeartandStroke>)
- **FR:** @coeuretavc (<https://twitter.com/coeuretavc>)

Facebook

- **EN:** @heartandstroke (<https://www.facebook.com/heartandstroke>)
- **FR:** @coeuretavc (<https://www.facebook.com/coeuretavc>)

Instagram

- @heartandstroke (<https://www.instagram.com/heartandstroke/>)

LinkedIn

- @heartandstroke (<https://www.linkedin.com/company/heart-and-stroke>)