

## **Warning! Dementia ahead: New research reveals connections between heart conditions, stroke and cognitive decline**

### **2019 Heart & Stroke report calls for urgent changes to end unnecessary suffering**

February 7, 2019 -- Toronto, ON – A groundbreaking report from Heart & Stroke shows much deeper connections between heart conditions, stroke and vascular cognitive impairment<sup>1</sup> than were previously understood. A first-ever analysis of hospitalizations over the past decade showed that people thought to have one vascular condition are at significantly higher risk for developing – or already have – multiple vascular conditions that could result in rehospitalizations and death. And the trend is clearly on the rise.

#### **All roads can lead to dementia**

“The most startling finding is that people with heart conditions have a significantly increased risk of vascular cognitive impairment and possibly dementia, because of their underlying vascular disease,” says Yves Savoie, Heart & Stroke CEO. “Vascular diseases are even more interconnected than we knew, and that means a bigger and more frightening problem for most people in Canada as 90% live with risk of cardiovascular disease.”

A few statistics from the report tell the surprising tale:

- People with heart failure are 2.6 times more likely to experience vascular cognitive impairment
- Congenital heart disease may triple the risk of early onset vascular cognitive impairment (under age 65) and increase the risk of late onset vascular cognitive impairment by 30%.
- People with atrial fibrillation are 1.4 times more likely to experience vascular cognitive impairment
- People with heart valve disease have a 25% increased risk of vascular cognitive impairment
- 30% of people who experience a second stroke are at risk of developing vascular cognitive impairment

For its report, *(Dis)connected: Unseen links are putting us at risk*, Heart & Stroke reviewed published studies and extensively mapped the associations between heart conditions, stroke and vascular cognitive impairment. They conducted a comprehensive analysis of hospitalizations for these conditions in Canada between 2007 and 2017. This analysis of hospitalizations and related rehospitalizations, conducted for the first time ever, shows the conditions are so deeply connected that people who previously were

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<sup>1</sup> Vascular cognitive impairment is cognitive decline caused by abnormalities in the small blood vessels of the brain. The severity can range from mild problems with concentration and thinking, to dementia – the most severe form.

thought to have one condition are likely to develop multiple conditions – many without knowing.

The research also uncovered gaps in the health system, that was designed around a “one-disease” model. For people with multiple conditions, those gaps have resulted in delays in diagnosis or interventions, potentially resulting in these conditions becoming more serious illnesses.

“These unseen links between vascular conditions have led to unnecessary suffering for hundreds of thousands of people in Canada. People are overwhelmed and the health system is overloaded. It is not sustainable, and it is only going to worsen as the population ages and disease continues to appear earlier in people’s lives,” adds Savoie.

### **The numbers are staggering**

Between 2007 and 2017, 2.6 million hospitalizations in Canada involved people who were experiencing at least one heart condition, a stroke or vascular cognitive impairment. A full 40 per cent of those people were readmitted one or more times for a new related illness. Those related illnesses might have been preventable or less serious with lifestyle changes or earlier medical treatment. Instead, many progressed into serious illnesses and medical emergencies. The impact on women is even worse than it is for men.

In fact, Heart & Stroke’s research shows one person dies in Canada every five minutes from heart conditions, stroke or vascular cognitive impairment. This outpaces other diseases; 13% more people die of heart conditions, stroke or vascular cognitive impairment than die from all cancers combined.

The study has worldwide implications. “We know what the common risk factors are and what needs to be done. Millions of deaths and much disability [worldwide] could be averted over the next decade if what is already known is applied,” says Dr. Vladimir Hachinski, a neurologist and expert in stroke and dementia in Ontario.

### **Solution requires system change**

The heart and brain are connected by the vascular system, but not the health system. We must begin by building awareness of the connections between these conditions, including the public and people working within the health system. Part of the solution will involve the design of the health system. Even with one condition, patients and their families must navigate a complicated network of health-related services. For people with multiple conditions, the siloed approach to care is particularly challenging. Once cognitive impairment is added to the mix, the challenge can be overwhelming.

“You have to be your own advocate, 100 per cent,” says Sarah Lansdown, who had two strokes and had to advocate for herself throughout her diagnosis, treatment and recovery. “If I didn’t have money, resources, education, language skills and a strong will, I would not

have gone anywhere. I worry about others not having the support and resources they need.”

“We use the term navigation, but we could do better for both patients and providers to help them find their way,” says Dr. Sharon Mulvagh, a cardiologist in Nova Scotia.

“Patients need clearly defined expectations and direction around next steps — who is going to do what, what are they waiting for, what they might experience next, and they need to be provided with a record of this information. Doctors, nurses and other healthcare team members want to provide the best comprehensive, interdisciplinary care but it can be a real challenge to do so without adequate resources or communication.”

“What is needed is a streamlined, integrated system, applying a wholistic approach to meet patients’ needs and simplify their experience through diagnosis, treatment, secondary prevention, and ongoing care or recovery,” says Patrice Lindsay, Heart & Stroke’s director of systems change and stroke program.

### **What Canadians can do**

- If you have a heart condition, stroke or vascular cognitive impairment, make sure your doctor is checking for other related conditions. You should be followed for other potential conditions that might be developing.
  - Find [tips and questions](#)<sup>2</sup> for talking to your healthcare professional.
- Recognize that prevention has never been more important. Healthy lifestyle choices, such as quitting smoking and increasing exercise, do not just help heart conditions, stroke or vascular cognitive impairment — they help all three and more.
  - Find information on [healthy lifestyle changes](#)

### **What Heart & Stroke is doing**

A key role for Heart & Stroke is to be a catalyst for change. It is calling on health providers and system leaders to join it in taking action.

- Increase awareness of the connections – among the public and the full range of healthcare professionals who work with people living with these conditions
- Invest renewed energy around prevention programs – promoting, enabling and adopting healthy lifestyle habits. Prevention is more important than ever; if you prevent one vascular condition, you help to prevent others
- Create a streamlined, patient-centred health system model that efficiently works with people who have multiple vascular conditions.
- Continue to provide support and guidance for people living with heart conditions, stroke and vascular cognitive impairment

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<sup>2</sup> Link will be live Feb. 7, 2019.

- Continue to fund research to deepen our understanding of the complexity of the vascular system and the connections between its conditions

### **About Heart & Stroke**

Life. We don't want you to miss it. That's why Heart & Stroke leads the fight against heart disease and stroke. We must generate the next medical breakthroughs, so people in Canada don't miss out on precious moments. Together, we are working to prevent disease, save lives and promote recovery through research, health promotion and public policy.

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