

February 7, 2019

## **Connected by the Numbers**

**Facts drawn from “(Dis)connected: How unseen links are putting us at risk”**

### **Prevalence**

- Nine in 10 Canadians have at least one risk factor for heart conditions, stroke or vascular cognitive impairment.
- 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 and vascular cognitive impairment than die from all cancers combined.
- 91,524 people in Canada died of heart conditions, stroke or vascular cognitive impairment in 2016.

### **Hospitalizations – 2007-2017**

- 2.6 million hospitalizations in Canada between 2007 and 2017 involved people with at least one of: heart condition, stroke and/or vascular cognitive impairment
- More than one in 10 hospitalizations in Canada are for heart conditions, stroke and vascular cognitive impairment.
- Of all people admitted to hospital with a heart condition, stroke or vascular cognitive impairment (1,515,256 people), 40% (or two out of five people – 620,143 people) were readmitted one or more times for a similar or new event.
  - Over 30% of people with heart valve disease returned to hospital for atrial fibrillation.
  - One-third of people with heart valve disease were previously in hospital for heart failure.
  - 21% of people with vascular cognitive impairment were previously in hospital for stroke.
- One person in five had two hospital admissions for new heart- or stroke-related conditions and another one in five had three or more admissions for new heart- or stroke-related conditions.
- And perhaps even more significantly, hospitalizations for these conditions are increasing. The greatest increases were for structural heart disease (50%), vascular cognitive impairment related conditions (35%) and heart failure (25%).
  - The aging population is contributing to this.
  - These conditions are manifesting at an earlier age, with a growing number of people in their 30s, 40s and 50s.

### **The impact of cognitive impairment**

- People with vascular cognitive impairment have up to a 68% increased risk of fatal stroke.

- People with stroke are 2.2 times more likely to experience vascular cognitive impairment.
- People with heart failure are 2.6 times more likely to experience cognitive impairment.
- People with atrial fibrillation are 1.4 times more likely to experience vascular cognitive impairment.
- People with valve disease have a 25% increased risk of 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%.

**Impact on Women** (see separate fact sheet for additional stats)

- Women with heart failure have a six-times increased risk of atrial fibrillation (Afib) — a 25% higher risk than men.
- Women are disproportionately affected by stroke: 45% more women die of stroke than men in Canada, and because they live longer, more women live with the effects of stroke.
- Women with heart valve disease have a three-times increased risk of Afib (50% higher risk than men).
- In 2016, 12% more women than men died of heart conditions, stroke or vascular cognitive impairment.
- In 2016, twice as many women than men died of causes related to vascular cognitive impairment.

**Cost**

- The burden of heart conditions, stroke and vascular cognitive impairment on the health care system is already immense. Cardiovascular disease alone is the most costly disease in Canada, totaling \$21.2 billion in direct (medical) and indirect (lost earnings) costs.
- Stroke costs the Canadian economy \$3.6 billion a year in physician services, hospital costs, lost wages and decreased productivity.
- The combined direct and indirect costs of dementia total \$33 billion a year. This number will climb to \$293 billion a year by 2040.

The inter-relationship of heart conditions, stroke and vascular cognitive impairment increases the economic impact. For example, the cost of caring for patients with stroke associated with Afib is significantly higher than the cost for those whose stroke was not caused by Afib.