



Addressing inequities in heart care

Standing Committee on Finance 2022 Pre-budget
consultation

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Canadian Cardiovascular Society

Leadership. Knowledge. Community.

Recommendations

1. That the federal government partner with the Canadian Cardiovascular Society (CCS) to develop and activate a national heart failure strategy.
2. That the federal government invest in awareness, education, and access to defibrillators to mitigate the effects of cardiac arrest.

Recommendation # 1: That the federal government partner with the CCS to develop and activate a national heart failure strategy

Background

The Canadian Cardiovascular Society (CCS) has observed worrying increases in the burden of heart disease and the cost to taxpayers in Canada. Before the COVID-19 pandemic, the economic burden was expected to reach \$28.3 billion annually, including more than \$2.8 billion (or 1% of Canada's GDP) related to heart failure (HF).^{1,2,3} The pandemic has measurably increased these costs as waitlists for non-elective cardiac procedures have grown, and patients awaiting postponed procedures have become more gravely ill. Even before financial pressures were exacerbated by the pandemic, the cost of heart disease was projected to steadily increase as risk factors for disease become more prevalent within the Canadian population,⁴ and as seniors make up a larger proportion of the population.⁵

In addition, the thousands of patients who have experienced severe delays are now presenting for cardiac care in far worse health than if their heart conditions were treated sooner. This is particularly concerning for Canada's most vulnerable populations – those who are geographically, racially, and/or socially marginalized – who have higher rates of heart disease and tend to experience worse outcomes.⁶ Some specific examples of disparities in care and patient outcomes include the following:

1. The quality and consistency of services varies across Canada; the *city and province* in which you receive treatment can result in up to a three-fold difference in cardiac mortality.⁷
2. The elderly population is most likely to benefit from receiving recommended therapies and procedures, but often least likely to receive the care they need.⁸
3. Indigenous Peoples (First Nations, Inuit and Métis) have higher heart disease rates than the general Canadian population and are more likely to die as a result.⁹
4. Substantial sex differences exist in treatment and outcomes; women who suffered a heart attack are 30% more likely to die than men and the disparity is greater in younger women.¹⁰

5. Individuals of lower sociodemographic status are less likely to receive cardiac surgery following a heart attack, and more likely to be readmitted to hospital.¹¹

The importance of addressing health disparities, particularly among marginalized groups, is reinforced by a report from the Public Health Agency of Canada (PHAC) who have stated: “[...] health disparities threaten the cohesiveness of community and society, challenge the sustainability of the health system and have an impact on the economy. These consequences are avoidable and can be successfully addressed” (p. 3).¹²

Already, heart disease is a leading cause of death and disability among Canadians,^{13,14} and premature death for women.¹⁵ In fact, about 2.4 million (1 in 12) Canadian adults aged 20 years and older are living with ischemic heart disease, and another 669,600 (3.6%) Canadian adults aged 40 years and older are living with chronic HF.¹⁶ Additionally, 92,900 Canadian adults receive a new HF diagnosis annually. For Canadians 65 and older, it is the second leading cause of hospital admissions and the fifth leading cause of medical admissions overall. It is also estimated that 25 to 50% of HF patients return to hospital within 30 days of being discharged.¹

For these reasons, we recommend that the federal government partner with the CCS to develop and activate a national heart failure strategy.

Our plan

Barriers to evidence-based HF care in Canada have already been cited in the literature. This includes disparities in access to and management of appropriate HF care which may be exacerbated among geographically, culturally, and socially marginalized groups.^{17,18,19,20} There are also inequities in access to HF treatments based on timing and degree of public coverage that vary among Canadian provinces and territories. As the national professional association that represents cardiovascular specialists across the country, the CCS is well-positioned to develop a comprehensive HF strategy that addresses gaps, barriers, and inequities in HF care across Canada.

Our work will be guided by the Knowledge-To-Action (KTA) Framework to facilitate sustainable, evidence-based delivery of HF care.²¹ Our work will address patient, provider, and system-level barriers to best-practices in care with the goal of enabling equitable access to high-quality HF care for Canadians. Table 1 outlines the steps we plan to take to accomplish this.

Table 1. KTA steps and processes to developing and activating a national HF strategy

KTA Step	Process / Action Steps
1. Identify and scope the problem: the absence of a national HF strategy	<ul style="list-style-type: none"> - Examine barriers to implementation of evidence-based HF care in Canada.
2. Identify, review, and select the knowledge or research relevant to the problem (e.g., practice guidelines or research findings)	<ul style="list-style-type: none"> - Review literature to examine research on gaps, barriers, and facilitators to evidence-based care. - National, bilingual needs assessment survey (cardiologists, family physicians, cardiology sub-specialists, internal medicine physicians, emergency physicians, etc.). - Assess feasibility of measurement and reporting of HF quality indicators.
3. Adapt the identified knowledge or research to local context	<ul style="list-style-type: none"> - Select HF themes of care informed by needs assessment, care gaps, strength of recommendations, feasibility to produced desired outcome(s). - Identify tools, educational interventions, delivery mechanisms, and system-changes to achieved desired outcome(s) - Develop tailored 3-to-5-year KTA strategy
4. Assess barriers to using the knowledge	<ul style="list-style-type: none"> - List barriers, facilitators and interventions based on relevant research (#2) and adaptations (#3)



<p>5. Select, tailor, and implement interventions to promote the use of knowledge (i.e., implement the change)</p>	<ul style="list-style-type: none"> - List patient, provider, and system strategies as solutions to address relevant research (#2), adaptations (#3), and barriers (#4). - Implement strategies informed by Pathman’s Proceed model. - Develop and disseminate corresponding communications to relevant stakeholder(s).
<p>6. Monitor knowledge use</p>	<ul style="list-style-type: none"> - Identify metrics and assess knowledge, confidence, and intentions to change using mixed-methods. - Iteratively update tools, materials, and communications.
<p>7. Evaluate the outcomes of using the knowledge</p>	<ul style="list-style-type: none"> - Longer term, data-driven outcomes; RCT-type study; measure quality indicator change over time (Dixon-Kirkpatrick).
<p>8. Sustain ongoing knowledge use</p>	<ul style="list-style-type: none"> - Iteratively update tools and program materials. - Implement new best-practice recommendations as needed. - Refine full KTA strategy informed by new needs and evidence.

The CCS is already beginning to define and scope 3–5-year deliverables and associated costs.

Recommendation #2: That the federal government invest in awareness, education, and access to defibrillators to mitigate the effects of cardiac arrest

The CCS supports the Heart and Stroke Foundation's (HSF) call for funds to mitigate the effects of cardiac arrest by:

- Investing in a public engagement campaign to raise awareness and build knowledge and capacity about the life-saving potential of performing CPR and using a defibrillator;
- Expanding access to defibrillators in areas under federal jurisdiction including emergency and RCMP vehicles, commercial aircraft, trains, and water vessels;
- Respectfully engaging with Indigenous organizations and leaders to facilitate discussions on cardiac arrest rates among Indigenous Peoples with the goal of improving resuscitation outcomes; and
- Investing in public education.

Additionally, universal access to automated external defibrillators (AEDs) is required beyond what's available in federal and provincial buildings – access in public buildings is another key gap. Standardization in laws, policy, and messaging across the country is needed. While networks are now in place to begin to address this, federal support is needed to expand capacity and reach.

Conclusion

The CCS would be pleased to partner with the federal government to develop and activate a national HF strategy. We also support federal investments in awareness, education, and access to defibrillators. As the federal government implements its COVID-19 recovery plan for jobs, growth, and resilience, there is no doubt that these efforts will address inequities perpetuated by the pandemic and offer numerous socio-economic benefits.

About Us

The Canadian Cardiovascular Society (CCS) is the national, non-profit professional organization that represents more than 2,500 cardiologists, cardiac surgeons, and scientists across Canada. Established in 1947, the CCS supports heart care specialists by setting national standards, sharing knowledge, and informing policy. For more information, visit www.ccs.ca.

1. Canadian Institute for Health Information. National Health Expenditure Trends, 1975 to 2016. Available at: <https://www.cihi.ca/en/national-health-expenditure-trends>. Accessed September 15, 2017.
2. Cook, C., Cole, G., Asaria, P., Jabbour, R., & Francis, D. P. (2014). The annual global economic burden of heart failure. *International journal of cardiology*, 171(3), 368-376.
3. Tran, D. T., Ohinmaa, A., Thanh, N. X., Howlett, J. G., Ezekowitz, J. A., McAlister, F. A., & Kaul, P. (2016). The current and future financial burden of hospital admissions for heart failure in Canada: a cost analysis. *CMAJ open*, 4(3), E365.
4. Public Health Agency of Canada. Heart Disease in Canada. Available at: <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/heart-disease-canada.html>. Accessed on December 19, 2019.
5. Employment and Social Development Canada. Government of Canada – Action for Seniors Report. Available at: <https://www.canada.ca/en/employment-social-development/programs/seniors-action-report.html>. Accessed on December 19, 2019.
6. Yeates, K., Lohfeld, L., Sleeth, J., Morales, F., Rajkotia, Y., & Ogedegbe, O. (2015). A global perspective on cardiovascular disease in vulnerable populations. *Canadian Journal of Cardiology*, 31(9), 1081-1093.
7. Canadian Institute for Health Information. (2017). *Cardiac Care Quality Indicators*. <https://www.cihi.ca/sites/default/files/document/cardiac-care-quality-indicators-report-en-web.pdf>
8. Tay, K. H., Lane, D. A., & Lip, G. Y. (2009). Challenges facing anticoagulation among the elderly and frail. *Age and Ageing*, 38(2), 140-142.
9. Reading, J. (2015). Confronting the growing crisis of cardiovascular disease and heart health among aboriginal peoples in Canada. *Canadian Journal of Cardiology*, 31(9), 1077-1080.
10. Public Health Agency of Canada (2017). Heart Disease in Canada: Highlights from the Canadian Chronic Disease Surveillance System. <http://www.canada.ca/en/public-health/services/publications/diseases-conditions/heart-disease-canada-fact-sheet.html>
11. Schultz, W. M., Kelli, H. M., Lisko, J. C., Varghese, T., Shen, J., Sandesara, P., ... & Sperling, L. S. (2018). Socioeconomic status and cardiovascular outcomes: challenges and interventions. *Circulation*, 137(20), 2166-2178.
12. Public Health Agency of Canada. (2005). *Reducing Health Disparities – Roles of the Health Sector: Recommended Policy Directions and Activities*. https://www.phac-aspc.gc.ca/ph-sp/disparities/pdf06/disparities_recommended_policy.pdf.
13. Public Health Agency of Canada (2017). *Heart Disease in Canada*. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/heart-disease-canada.html>.
14. Statistics Canada. (2015). *The 10 leading causes of death*. www.statcan.gc.ca/pub/82-625-x/2015001/article/14296-eng.htm
15. Heart and Stroke Foundation. (2018). *Ms. Understood*. https://www.heartandstroke.ca/-/media/pdf-files/canada/2018-heart-month/hs_2018-heart-report_en.ashx.
16. Public Health Agency of Canada (2018). *Report from the Canadian Chronic Disease Surveillance System: Heart Disease in Canada*. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/report-heart-disease-Canada-2018.html>.
17. Hayes, S. M., Peloquin, S., Howlett, J. G., Harkness, K., Giannetti, N., Rancourt, C., & Ricard, N. (2015). A qualitative study of the current state of heart failure community care in Canada: what can we learn for the future?. *BMC health services research*, 15(1), 1-10.
18. Gamble, J. M., Eurich, D. T., Ezekowitz, J. A., Kaul, P., Quan, H., & McAlister, F. A. (2011). Patterns of care and outcomes differ for urban versus rural patients with newly diagnosed heart failure, even in a universal healthcare system. *Circulation: Heart Failure*, 4(3), 317-323.
19. Wijeyesundera, H. C., Trubiani, G., Abrahamyan, L., Mitsakakis, N., Witteman, W., Paulden, M., ... & Krahn, M. (2012). Specialized multi-disciplinary heart failure clinics in Ontario, Canada: an environmental scan. *BMC health services research*, 12(1), 1-11.
20. Howlett, J. G. (2014). Specialist heart failure clinics must evolve to stay relevant. *Canadian Journal of Cardiology*, 30(3), 276-280.
21. Graham, I. D., & Tetroe, J. M. (2010). The knowledge to action framework. *Models and frameworks for implementing evidence-based practice: Linking evidence to action*, 207, 222.

