National reporting on cardiovascular care

Using data to inform cardiac care during the pandemic and in a post-COVID-19 world

Submitted to the Standing Committee on Finance

Pre-Budget Consultations 2021

Canadian Cardiovascular Society
Leadership. Knowledge. Community.

Recommendation

That the government provide $2.5 million per year for three years ($7.5M total) to sustain, scale, and spread national reporting on cardiovascular care quality and inform care delivery and management during and following the COVID-19 pandemic.

Introduction

Heart disease is a leading cause of death and disability among Canadians,[1] and premature death for women.[2] 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 heart failure.[3]

Before the COVID-19 pandemic, the economic burden of heart disease was expected to reach $28.3 billion annually by 2020.[4] The pandemic will increase these costs as waitlists for non-elective cardiac procedures are delayed and patients on wait lists become more ill. In addition, the cost of heart disease will grow as risk factors become more prevalent[1] and seniors make up a larger proportion of the population.[5]

The pandemic has also had serious direct and indirect consequences on the health of Canadians living with heart disease and those who develop cardiac complications stemming from infection. These consequences include:

1. measurable decreases in the number of people arriving at hospital for medical emergencies such as heart attacks and stroke, resulting in increased, preventable out-of-hospital deaths; [6, 7] and
2. measurable declines in the number of cardiac procedures and increases in wait list lengths as operating rooms were closed in preparation for a COVID-19 surge.[8]

As a result, patients have experienced severe delays in care and are presenting for care in worse health than if their heart conditions were treated more urgently. This is particularly concerning for Canada's most vulnerable populations – those who are geographically, culturally, and/or socially marginalized – who are disproportionately affected by heart disease and tend to experience worse outcomes.[9]

COVID-19 has added to the growing backlog of patients waiting for valve replacements and heart rhythm procedures. This situation could have been avoided if decision-makers had access to real-time health data to make regional comparisons, observe trends, and make evidence-informed decisions. Access to data remains critically important and unresolved as we face future waves of the pandemic. This will continue impeding appropriate allocation of scarce resources; effective, efficient, and equitable care; and containment of health care costs.

For this reason, the Canadian Cardiovascular Society (CCS) recommends that the federal government provide $2.5 million per year for three years ($7.5 million total) to sustain, scale, and spread national reporting on cardiovascular care quality and inform care delivery and management during and following the COVID-19 pandemic.

The need

The call to monitor and report on Canadian cardiovascular care quality is not new. In 2009, the federally-funded *Canadian Heart Health Strategy and Action Plan* called for national systems to monitor, report on, and improve the quality of cardiovascular care.[10] With initial support from the Public Health Agency of Canada (PHAC) and the Canadian Institutes of Health Research (CIHR), CCS's expert volunteer members built the system's infrastructure by developing data definitions and quality indicators. The CCS also used this data to develop and disseminate proof-of-concept comparative reports [11, 12, 13] that are fundamental to improving care quality.

These reports allow care providers and health decision-makers "…to compare the impact of different treatments; assess the cost-effectiveness of investments in new pharmaceuticals, tests and procedures; and develop more effective prevention programs and therapies" (p. 81).[10] Examples of indicators the CCS is now able to report on nationally include: access, wait times, rehospitalizations, and lengths of stay.

Without this information, cardiovascular specialists, care teams, and policy-makers must make decisions in information vacuums. They seek to offer high quality care at the best cost but have no way to validate regional assumptions about access, effectiveness, efficiency, or safety, and cannot see where promising practices exist. In the first wave of COVID, it meant beds sat empty, wait lists grew, and patients needing urgent care were locked out even as the first peak of infections passed.

In the context of COVID-19, health services saw dramatic changes to rates and types of care but were challenged by a lack of real-time data to inform decision-making. Unfortunately, few have been able to accurately estimate the extent to which COVID-19 has affected rates of incidence, duration, and recovery among Canadians. Even less is known about how the impact of COVID-19 varies among hospitals and provinces. This is especially challenging for the five provinces with only one cardiovascular care centre who have no other centres to compare with.

Not only is this data necessary to address the immediate demands of the pandemic, but it offers the evidence needed to make informed and targeted improvements to health system delivery models, based on what we learn from the crisis response. The CCS's proven cardiovascular reporting model can

serve as a blueprint for monitoring and reporting in other chronic diseases. Our methods are also fundamental to upholding the *Canada Health Act*. By investing in cardiovascular quality reporting, the federal government will be positioned to hold provinces and centres accountable for health care system performance.

The evidence

The effectiveness of this approach has been shown in other contexts. The Canadian Partnership Against Cancer (CPAC) has built a similar surveillance system to improve the delivery of cancer services and patient experiences across the country. Since 2007, CPAC estimates approximately 74,000 cancer cases, over 51,000 deaths, and $5 billion in cancer-related treatment costs have been avoided.[14] The national benchmarking programs (the comparative assessment of activities and outcomes in a continuous process) in Australia, Sweden, the United Kingdom, and the United States have resulted in improvements in care quality and reductions in inefficiencies.[15, 16] In addition, the CCS cardiovascular national reporting system aligns with the national Choosing Wisely Canada campaign which serves to reduce overuse of health care resources.[17] The synergy between the CCS Quality Project and Choosing Wisely, as it relates to cardiovascular care, stems from the fact that the CCS Quality Project provides the data to inform their work.

The goal

The CCS requests $2.5 million per year for three years ($7.5 million total) to sustain and fully scale a national quality reporting system across up to 12 primary domains of cardiovascular care. In this time, the CCS will continue to collaborate with pan-Canadian health organization (PCHO) partners including the Canadian Institute for Health Information (CIHI) and Canadian Agency for Drugs and Technologies in Health (CADTH). The CCS currently collaborates with these organizations on the proof-of-concept reports. The ultimate aim is to transfer responsibility of the national quality reporting system to the most appropriate and properly resourced PCHO by 2024. A breakdown of the project deliverables and budget can be found in **Appendix A**.

Our support

Since project funding for phase I of the Quality Project from the PHAC ceased in 2015, the CCS has sought federal funding to advance this initiative. Between 2016-2020, the CCS has:

- liaised extensively with parliamentarians and bureaucrats, and has found strong support for federal funding;

- acquired hundreds of letters of support addressed to the federal Ministers of Heath and Finance by members of the federal Standing Committee on Health, provincial cardiac care agencies, PCHO partners, and cardiac care program chiefs and specialists; and
- received recommendations to fund this national reporting system (CCS Quality Project) from this committee in its 2017, 2018, and 2019 reports.

With continued interest and encouragement from CCS members, particularly now that COVID-19 has exacerbated and spotlighted the data access problem, we continue to seek support from decision-makers who have influence over the federal budget.

The impact

Canada would see numerous socio-economic benefits from this national cardiac quality reporting system including:

- improved quality of care and outcomes for patients;
- data-driven decision-making that maximizes value, effectiveness, and efficiency of care;
- evidence-informed planning for future pandemic waves;
- reduced health disparities;
- increased accountability and patient confidence in the health system; and
- an established culture of continuous quality improvement.

As Canada restarts the economy, it has never been more important to have national health care data to facilitate evidence-informed decision making. Thus, **the CCS recommends the federal government invest $2.5 million per year for three years ($7.5 million total) to sustain, scale, and spread the cardiovascular national reporting system.** This investment will provide a valuable tool for provinces and territories to systematically improve cardiovascular care quality and patient outcomes. It will also enable the federal government to hold jurisdictions accountable for ensuring health care transfers are used to achieve effective, efficient, and equitable heart care for Canadians.

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*.

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Appendix A

DELIVERABLE	IMPACT	RESOURCES	BUDGET	
National Quality Indicator Reporting: Focus on high disease burden, high prevalence, high risk, high cost: Reporting on 60 quality indicators in domains of: **Heart Failure** • Aortic Stenosis • Percutaneous Coronary Intervention (PCI) • Atrial Fibrillation • Cardiac Rehabilitation **Structural Heart Disease** • Valve replacement (TAVI) • Cardiac Surgery **Development of expanded dataset** for comprehensive national cardiac care quality reporting.	• **CCS/CIHI National Cardiac Care quality reports** provide cardiovascular specialists, cardiac care teams, regional and provincial cardiac/health services with comparative, site-specific reports to highlight leading practices and areas for improvement. • Quality indicator reports are generated through methodology that aggregates and maps **existing data from multiple national and provincial datasets** into a valid and reliable comparative report. • **CCS, CADTH and CPSI have access** to critical, novel information to inform their work. **Sample report:** 2019 National Quality Report: TAVI.	• Access to national and provincial datasets • Volunteer Expert Working Groups (60 CCS members: Cardiologists and Cardiac Surgeons) • Project Leadership (Director) • Stakeholder/Partner Liaison (CIHI, CFHI, CPSI, Heart & Stroke, Federal and Provincial Governments, Provincial Cardiac Care centres, • Methodological expertise • Data collection and analysis • Report writer • Program Evaluation • CCS Governance and fiduciary oversight (CEO, Board, CFO, Finance Officer)	 60 cardiac medical specialists 1.0 FTE 30 Stakeholders 1.0 FTE 1.5 FTE 1.0 FTE 1.0 FTE 0.1 x 4	$250,000 $0 $125,000 $0 $100,000 $155,000 $75,000 $100,000 $0

Knowledge Translation Tools and Change Management Support
• Interactive online data resource
• Educational materials
  ○ Webinars
  ○ Quality improvement tools
  ○ Print resources
  ○ Case studies featuring best practices
	Individual practitioners and cardiac care teams across provinces have the tools, resources and supports need to inform areas for improvement and change management to adopt/evolve toward best in class care.
	Improvements in outcomes can be tracked over time through ongoing quality reporting
		Knowledge translation expertise/ tool development
		Program Liaison to pan-Canadian sites/teams
		Site-specific capacity for data entry/reporting
		Communications
		Graphic Design
		Website development/maintenance
		Translation
		Printing
			2.0 FTE
			1.0 FTE
			0.3 FTE/10 prov
			2.0 FTE
			FTE
			FTE
			0.5 FTE
				$200,000
				$90,000
				$300,000
				$150,000
				$75,000
				$75,000
				$40,000
				$40,000

Program Supports and Administration: • In-person Working Group technical sessions to further develop datasets, indicators, and reporting strategy. • In-depth consultations with provincial stakeholders to support knowledge translations and quality improvement activities. • Efficient central office project coordination		• Meeting costs for 10 x working groups x 6 meetings/year (detailed breakdown available) + working meetings with CIHI and CFHI collaboratives. • Provincial cardiac care services consultations (detailed breakdown available) • Meeting costs (rooms, av, meals) • Finance Services • Administrative support • Technology support • Office rental, supplies	10 sites x 3 0.3 FTE 0.5 1.0 FTE	$350,000 $60,000 $35,000 $30,000 $30,000 $80,000 $140,000
Estimated Total Annual Budget				**$2,500,000**