COMMENTARY

Cancer Strategic Clinical Network: Improving cancer care in Alberta

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Cancer is the leading cause of premature death in Alberta, and cancer care places a substantial burden on its health system. One in 2 citizens of Alberta will be diagnosed with cancer in their lifetime; 20 473 new cancer cases and 6637 cancer-related deaths are expected in 2019.[1] Alberta's population is increasing in size and aging rapidly, contributing to a 62% and 63% increase in cancer cases, respectively.[1] The effect of cancer-related illness on citizens of Alberta, its communities and its health system will be overwhelming unless effective improvements are implemented.

In Alberta, the continuum of cancer services includes prevention, screening, diagnosis, treatment and long-term management following treatment, delivered in multiple settings and by a variety of providers. However, no single entity previously had a mandate to address unwarranted variation, improve linkages between services and programs, or advance innovation.

The Cancer Strategic Clinical Network (CSCN; www.ahs.ca/cancerscn) was launched in 2012,[2] to address this gap and lead health system improvements for Albertans at risk of or with a cancer diagnosis. Strategic priorities are established by its leadership and network and outlined in a strategic plan or Transformational Roadmap. From 2017 to 2020, the network is focused on developing and implementing clinical care pathways to improve health outcomes, strengthening appropriateness of care to eliminate unnecessary tests and treatments, and engaging in health services innovation and research.

The CSCN is now part of CancerControl Alberta (the Alberta Health Services [AHS] program that operates cancer facilities and programs). This alignment enables collaboration on priority setting and a better understanding of operational issues. Although alignment is important, having working relationships within a broader network enables reach beyond the formal cancer centres to address health system issues related to diagnosis, transitions of care, survivorship, palliation and end of life (Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.190576/-/DC1).

The CSCN's first projects were relatively small in scope (e.g., optimizing rectal cancer care and developing ways to enhance recovery after head and neck surgery for cancer) and were identified by clinical champions.[3–5] These early successes showed the value of having a provincial cancer entity facilitate and coordinate quality improvement across the continuum, and enabled CSCN to develop ways[2,6] to support strategic planning and execution of larger-scale projects for process improvement competently.

KEY POINTS

- Alberta's Cancer Strategic Clinical Network (CSCN) has a mandate to address unwarranted variation and facilitate quality improvement across the continuum of cancer prevention and care in the province.
- Early provincial projects in the areas of rectal and head and neck cancer, although smaller in scope, were fundamental in the CSCN's development and ability to tackle more complex initiatives, like breast health.
- Achieving provincial consensus about best available evidence among patients, clinicians and subject matter experts enables the successful implementation of pathways to improve patient outcomes and efficiencies.
- Accessible and integrated data are essential for sustained practice change.

For example, CSCN brought together disparate clinical teams to design and implement a provincial perioperative high-observation protocol for patients undergoing major head and neck surgery for cancer. By facilitating consensus between clinicians and patients on the pathway, managing implementation, and measuring performance and outcomes, CSCN contributed to reduced length of intensive care unit (ICU) (1.9 v. 1.2 d, $p = 0.021$) and overall hospital stays (20.3 v. 14.1 d, $p = 0.020$), and ICU readmissions (10.4% v. 1.9%, $p = 0.013$) among patients with head and neck cancer in Alberta.[4,5] By releasing ICU bed-days, the protocol generated capacity at 2 major urban hospitals without new resources. The CSCN developed strategies for patient engagement, consensus building, health care project management, and data audit and feedback. Building such strategies and relationships was essential to starting more complex and large-scale initiatives.

In 2016, the CSCN leveraged its experience and expertise to lead a multiyear initiative to improve care across the continuum for women at risk of or with breast cancer in Alberta. A key strategy included convening representatives from the breast health community to facilitate consensus on an end-to-end pathway

(Appendix 2, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.190576/-/DC1) that describes the continuum of care and that could be used to identify priorities for quality improvement. The first 2 priorities improved diagnosis and ensured surgical best practices. Three years later, the end-to-end pathway was used to organize consensus on subsequent priorities (e.g., multidisciplinary assessment and genetic testing).

The Breast Cancer Diagnostic Assessment Pathway addressed variation and wait time between discovery of a highly suspicious imaging finding and referral to a breast program. In 2017, the median wait time to surgical referral was 15 days, which was associated with high patient anxiety.[7] The CSCN pathway, implemented in 2018, resulted in a more than 50% reduction in the median wait time to referral to a breast program (from 15 to 6 d) and high patient-reported wait-time satisfaction.[7,8] This pathway improved communication and notifications to primary care physicians and the breast programs, prompted an immediate referral to a surgeon and initiated early patient navigation during the diagnosis period. The CSCN also established relationships required to integrate data from non-AHS providers and develop a provincial measurement system in collaboration with the Alberta Society of Radiologists.

The Same Day Mastectomy Pathway increased the proportion of mastectomies performed as day surgery. In 2014, Alberta was performing few day-case mastectomies compared with other provinces (1.4% v. 38.7% in Ontario, for example).[9] To address this gap and adopt best practices, the CSCN coordinated stakeholders to define which patients can receive same-day mastectomy, and developed audit and feedback mechanisms for operational leaders and clinical teams to benchmark adoption and continuously improve care delivery. The CSCN also collaborated with patients to design a provincial education package that would better meet their needs before and after surgery. Patients were instrumental in guiding its content and format. Between January and March 2019, 54% of mastectomies were day-cases with high patient satisfaction and access to consistent perioperative education. In total 884 bed-days were released in 2018/19 compared with 2011/12.[10]

Over the past 7 years, the CSCN network has grown in size and diversity, broadening its scope of work and learning along the way. Starting with defined projects that were feasible and could be completed in a short time enabled the network to show its value, build credibility and establish methodologies (quality improvement, implementation and measurement expertise) that were applied to more complex projects. That said, SCNs often have to compete amongst themselves for time-limited funding with predetermined scope, which inadvertently results in more quality improvement rather than large-scale transformational work. Sustainability can be challenging, especially in the absence of provincial accountability structures. Given that SCNs have existed for only 7 years, it is unknown whether CSCN projects will be sustained once work transitions to operations.

Improvements to health systems need to involve end users. Patient focus groups, experiences, feedback and codesign of patient resources helped advance solutions that addressed unmet patient needs for rectal, head and neck, and breast cancers. In some instances, patients voiced frustration and disappointment with the length of time it takes to untangle system complexities, especially when solutions span beyond the CSCN mandate or sphere of influence.

By engaging a broad network of passionate people from different parts of the health system and beyond, we fostered strong collaboration among stakeholders and agreement on priorities and strategies for improvement such as the end-to-end breast health pathway (Appendix 1). Despite provincial consensus and targets, site-specific timelines and implementation strategies were needed to address differences in readiness, ability to implement, or competing priorities — one size did not fit all. There was some tension in doing this because SCN funding was time limited. Across SCNs, we need to be more aware of how our collective work affects operations and how to better coordinate projects.

Linking data and information across the continuum of care is challenging. Legal barriers and problems with access to consistent and reliable data persist. The CSCN continues to facilitate an end-to-end measurement system that provides an integrated view of how cancer care is delivered across in Alberta.

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