TRANSFORMATIONAL ROADMAP: 2017-2020 AT A GLANCE

VISION
Healthy Albertans. Healthy Communities. Together.

MISSION
Partner with patients, clinicians, administrators, funders and the research community to bring about transformational change across the cancer continuum.

STRATEGIC GOALS 2017-2020

- Develop and implement CLINICAL CARE PATHWAYS to improve health outcomes
- Support initiatives that facilitate appropriate tests and treatments and reduce unnecessary tests and treatments to strengthen APPROPRIATENESS OF CARE
- Engage in RESEARCH AND INNOVATION to advance emerging priorities in cancer care delivery

MAJOR INITIATIVES
- Alberta Rectal Cancer Initiative and Clinical Care Pathway
- Acute Care Utilization for Albertans with Oncological and Non-Oncological Advanced or End Stage Illness
- Provincial Breast Health Initiative
- Provincial Bladder Cancer Pathway
- **All clinical care pathway work exhibits a strong focus on appropriateness of care

MATURITY CAPABILITIES
- Organization & Culture of Innovation and Organizational Transformation
- Planning & Priority Setting
- Program & Project Management
- Performance Management & Measurement
- Evidence-Informed Decision Making
- Stakeholder Engagement & Relationship Management
- Knowledge Management & Translation
- Transformational Leadership
- Innovation
- Strategic Alignment

GUIDING PRINCIPLES
- A strong patient and family partnered care approach is foundational to our work
- Strong collaborations and strategic partnerships are necessary for advancing network activity
- Data and evidence inform strategies and plans to optimize clinical effectiveness and maximize cost effectiveness
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Since inception in 2012, the Cancer Strategic Clinical Network™ (Cancer SCN™) has shown considerable growth and maturation as a Network. Operating as a team, we continue to establish relationships and partnerships throughout the healthcare system; maintain focus and accountability for delivering innovative, evidence-based, quality improvements for cancer care and; develop tools and common approaches for measuring and reporting outcomes. It is our mission to bring about transformational change across the cancer continuum for all Albertans.

We work with strong patient and family advisors who are enthusiastic and active in representing Albertans - leading think-tank sessions, providing feedback on research, and guiding proposals for emerging priority initiatives. We are thrilled to be collaborating on two projects with the Patient and Community Engagement Research (PaCER) group. Intentional focus on these relationships has allowed us to move toward a more patient and family partnered care model; however, we recognize there is still much more we can and will do!

Our relationships with CancerControl Alberta, Zones, research community, industry partners, and health professionals enable us to define priorities and ensure alignment with the work of stakeholders in the community. We have designed and implemented new clinical pathways, which resulted in quality improvements for patients with head and neck, rectal, and breast cancer. These pathways address variation in clinical practices, improve access, and contribute to better patient - provider experiences. Measurement systems have been established to ensure these changes are sustainable and support continued improvement.

In the coming months, we will review and refresh our Cancer SCN Research and Innovation Strategic Plan and continue to shape an innovative research agenda. While our Transformational Roadmap is forward-looking, we have also highlighted some key successes of the network within the document.

We look forward to hearing any feedback you may have and including you in our journey to improve cancer care in Alberta. Please do not hesitate to contact us to share any ideas or insights.

Many Thanks,

Dr. Douglas Stewart  
Senior Medical Director

Barbara O’Neill  
Senior Provincial Director

Angela Estey  
Executive Director

Paula Robson  
Scientific Director

Chris Normandeau  
Manager

Anna Pujadas Botey  
Assistant Scientific Director

Adam Elwi  
Senior Project Manager

Tara Bond  
Senior Consultant
The Cancer SCN’s 2017-2020 Transformational Roadmap (TRM) is used to guide the work and direction of the network, with ongoing review and revision to respond to a changing environment and emerging issues. A consultation process was used with network members and provincial stakeholders to establish the network’s priority areas over the next three years. Patient engagement is embedded across all activities and continues to be integral to our success moving forward.

**AHS Vision:** Healthy Albertans. Healthy Communities. Together.

**Cancer SCN Mission:** The Cancer SCN will partner with patients, clinicians, administrators, funders and the research community to bring about transformational change across the cancer continuum.

**GUIDING PRINCIPLES**
- A strong patient and family partnered care approach is foundational to our work.
- Strong collaborations and strategic partnerships are necessary for advancing network activity.
- Data and evidence inform strategies and plans to optimize clinical effectiveness and maximize cost effectiveness.

**STRATEGIC GOALS & PRIORITY INITIATIVES**

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**PRIORITY INITIATIVES:**
- Alberta Rectal Cancer Initiative and Clinical Care Pathway
- Provincial Breast Health Initiative
- Provincial Bladder Cancer Pathway

**PRIORITY INITIATIVES:**
- Acute Care Utilization for Albertans with Oncological and Non-Oncological Advanced or End Stage Illness

**PRIORITY INITIATIVES:**
- Research Partnerships
  - Alberta Cancer Exercise Program (ACE)
  - BETTER WISE to improve Cancer & Chronic Disease Prevention & Screening in Primary Care
  - Enhancing HPV Vaccination in FN Populations in Alberta
  - Palliative Care, Early and Systematic
Introduction

Strategic Clinical Networks (SCNs™) are provincial teams who bring together expertise and experience of health professionals, researchers, government, communities, patients and their families to improve Alberta's health system. SCNs are the mechanism through which Alberta Health Services (AHS) empowers and supports physicians and clinical leaders both within AHS and the community to develop and implement innovative, evidence-informed, clinician-led, team-delivered health improvement strategies.

SCNs focus on innovation to improve care, use scientific evidence to guide care decisions, and support the spread of local examples of good care across the province. This is done with the intention to improve the patient experience, provide Albertans with skills and tools to stay healthy, provide the best health care for generations to come and ensure value from every health care dollar spent.

ABOUT THE CANCER STRATEGIC CLINICAL NETWORK™

Established in 2012, the Cancer SCN is comprised of cancer stakeholders from across the province who come together to lead and support evidence-informed improvements and promote innovation across the continuum of cancer care. The network strives to reduce the burden of cancer across Alberta through active patient engagement; design, delivery, and evaluation of priority initiatives; fostering collaborative partnerships; and application of research to catalyze meaningful change.

Please refer to Appendix A for a summary of legacy work undertaken by the Cancer SCN that has since been transitioned to care improvements.

GOVERNANCE

Within the AHS organizational structure, the Cancer SCN reports to the Senior Program Officer and Associate Chief Medical Officer of Health®. Sitting within the portfolios of Research, Innovation and Analytics and Quality and Healthcare Improvement, the Cancer SCN is well-positioned to partner with provincial programs and services, zone leadership and other SCNs to ensure alignment with AHS strategic direction and operations from the five zones. The SCN also accesses various AHS business and corporate supports as required to help achieve its goals.

The Cancer SCN is led by a leadership triad comprised of a Senior Medical Director, a Senior Provincial Director, and a Scientific Director. This strategic alliance ensures a strong clinical, operational, and scientific foundation of expertise to lead decision-making and priority setting for the network. The Cancer SCN leadership team also includes an Executive Director, a Manager, and a Senior Project Manager who oversee the day to day operations of the network and advancement of priority initiatives.

The Scientific Office of the Cancer SCN, led by the Scientific Director, is supported by an Assistant Scientific Director and ensures close alignment with the priorities of CancerControl Alberta, the academic community, and the broader network of cancer researchers. The focus is to support clinical effectiveness research through building capacity for health services research, supporting grass-roots driven patient-oriented research, and collaborating to generate knowledge.

Every SCN has a Core Committee, who offer experience and passion to help improve cancer care. The Cancer SCN Core Committee consists of stakeholders representing patients, senior leaders and decision makers, physicians, front-line staff, academic partners, community members, various support groups and other organizations and communities. Member responsibilities include contributing to strategic planning and priority setting, providing expertise and advice to advance Cancer SCN initiatives, and serving as a liaison and champion with colleagues from their respective areas. A broader and larger network of cancer stakeholders also exists, and this group is engaged to generate new ideas for innovative clinical improvements, establish important relationships to advance work of the Cancer SCN, and provide critical feedback and input into planning.

SCNs focus on innovation to improve care, use scientific evidence to guide care decisions, and support the spread of local examples of good care across the province.
The AHS vision has four foundational strategies (as seen in the figure below):

- **Patient First Strategy**
  - **Main objective:** Strengthen AHS’ culture and practices to ensure patients and families are at the centre of all health care activities, decisions and teams.

- **Our People Strategy**
  - **Main objective:** Our People Strategy is about how we support each other. It is about creating a culture in which we all feel safe, healthy, and valued, and can reach our full potential. Through Our People Strategy, workforce engagement will be higher, and patient and family experiences will improve as a result.

- **Strategy for Clinical Health Research, Innovation and Analytics**
  - **Main objective:** Generate, share and use evidence in the delivery of care to improve patient outcomes and to solve the complex challenges affecting the health system.

- **Information Management & Information Technology Strategy**
  - **Main objective:** To make the right information available to the right people at the right time across the health system, so that providers and patients across the province have access to complete information at the point of care and to learn from in the future.

The AHS’ Vision is: Healthy Albertans. Healthy Communities. Together.

The Cancer SCN’s mission has been developed and validated through strategic discussions within the Cancer SCN Leadership with input from the Cancer SCN Core Committee and other key stakeholders from the cancer community. The Cancer SCN mission uses the four foundational strategies of AHS as important pillars to our network’s strategic direction.

**Cancer SCN Mission:**
The Cancer SCN will partner with patients, clinicians, administrators, funders and the research community to bring about transformational change across the cancer continuum.
Strategic Goals & Guiding Principles

CANCER SCN STRATEGIC GOALS & GUIDING PRINCIPLES

All actions of the Cancer SCN contribute to fulfilling its defined mission and fall under one (or more) of the defined strategic goals of the network:

Strategic Goals
The vision and mission of the Cancer SCN are accomplished through three strategic goals:

- Develop and implement CLINICAL CARE PATHWAYS to improve health outcomes
- Support initiatives that facilitate appropriate tests and treatments and reduce unnecessary tests and treatments to strengthen APPROPRIATENESS OF CARE
- Engage in RESEARCH AND INNOVATION to advance emerging priorities in cancer care delivery

Several key guiding principles are inherent to strategic planning and decision-making:

GUIDING PRINCIPLES:
• A strong patient and family partnered care approach is foundational to our work.
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• Data and evidence inform strategies and plans to optimize clinical effectiveness and maximize cost effectiveness.

“ I am an ordinary, rural Albertan who has had some extraordinary opportunities to give back and inform cancer care in Alberta. I remember the first Cancer SCN meeting. I was sitting in a room with a group of incredibly talented, smart and passionate individuals; wondering why I was here. Very quickly I understood. The members of the Cancer SCN wanted to hear from an ordinary, rural Albertan how they could improve cancer care in Alberta. Every meeting I have felt valued and I have been trusted to share the voice of Albertan’s to inform many of the different initiatives the Cancer SCN has undertaken. The patient & family voice is the first voice to be heard around the Cancer SCN table and is firmly embedded in every decision made to enhance cancer care in Alberta. It has been such a privilege to sit at the table with this group of incredibly talented, smart and passionate individuals and know that we are making a difference.

- Lorelee Marin
  Patient & Family Advisor, Cancer SCN
  Provincial Advisory Council Cancer - Public Member
In August of 2015, I was diagnosed with tongue cancer and in November, underwent a 16-hour surgery to replace a portion of my tongue. I now recognize that I benefited immeasurably by following a post-operative clinical pathway created by the Head and Neck Cancer Strategic Clinical Network. Every step of my journey was mapped out. This meant that I had access to not only a world renowned surgical team, but a team of interdisciplinary experts including nursing, respiratory, nutrition, speech, and physiotherapy. After the surgery, my wife who works with the Cardiovascular Health and Stroke SCN suggested that I volunteer as a patient advisor. I can’t express how much I have enjoyed this incredible experience. From the initial patient advisor orientation, to participating with the core committee, I have felt welcomed and valued for my perspective and thoughts on how to continue to improve every patients journey. I have recently participated on a multi-SCN team looking at the utilization of Albertans through advanced or end-stage illness where I know my ‘voice’ is heard. After all the care I have received I am so grateful to be able to give back through working with the Cancer Strategic Clinical network.

- Adam Brown
  Patient Advisor, Cancer SCN
SCN Maturation & Growth

We strive to be a high performing network. This is achieved through a conscientious focus on self-assessment and goal setting; traits now embedded within the day-to-day culture of the network. Upon inception of the SCNs, a study identified the top characteristics of high-performing health care system. These characteristics were broken-down into ten key capabilities that form the foundation of the self-assessment. The SCN Capability Framework and Maturity Assessment is a management tool intended to gauge and make visible the progress of the SCNs. We continue to identify and build the competencies needed to assume our mandate of transforming the health care system and improving the health of Albertans.

The ten capabilities for which each SCN assesses their maturity and impact within the health system are:

- STRATEGIC ALIGNMENT
- PLANNING AND PRIORITY SETTING
- PROGRAM AND PROJECT MANAGEMENT
- PERFORMANCE MANAGEMENT AND MEASUREMENT
- EVIDENCE-INFORMED DECISION MAKING
- NETWORK AND STAKEHOLDER ENGAGEMENT AND RELATIONSHIP MANAGEMENT
- KNOWLEDGE MANAGEMENT AND TRANSLATION
- TRANSFORMATIONAL LEADERSHIP
- INNOVATION
- ORGANIZATION AND CULTURE OF INNOVATION AND ORGANIZATIONAL TRANSFORMATION

The Cancer SCN Leadership team focuses on different capabilities and develops an action plan to determine how progress will be achieved in these areas throughout the year. Team members are assigned responsibility to oversee key components of the action plan and are accountable for delivering regular status updates during Cancer SCN team meetings.

A comprehensive review and self-assessment is performed on a quarterly basis with input from the Cancer SCN team. Team members reflect on their work and how it enhances the ten capabilities. They are encouraged to share these examples on a large Maturity Capability poster hung on the office wall (as seen in picture). This quarterly review and self-assessment is reported to SCN Senior Leadership and highlights successes from the previous quarter, in addition to identifying goals for the up-coming quarter.

By developing an action plan, assigning accountabilities, defining how work to date contributes to each capability, together with strategic discussion and brainstorming sessions, the network maintains a long-term focus on maturation and growth. Development of a formal planning and priority setting process and creation of our Cancer SCN engagement strategy are recent examples of key milestones derived through this work. We continue to strive as a Network and develop evidence-based capabilities that enable our network to contribute to a better health system.
Cancer SCN - Key Initiatives

STRATEGIC GOAL #1:
Develop and implement clinical care pathways.

This strategic goal focuses on development, implementation, and evaluation of integrated, multidisciplinary, and evidence-informed clinical care pathways. Pathway development involves a collaborative approach to improve the patient journey, enhance access, and establish consistent approaches to care to improve health outcomes and reduce clinical variation. As the Cancer SCN expands its pathway work, learnings to address dependencies for sustainable pathway implementation can be leveraged to develop end-to-end pathways for other cancers.

PRIORITY WORK UNDERWAY:

Alberta Rectal Cancer Initiative and Clinical Care Pathway

Rectal cancer accounts for more than 10% of cancer surgeries in Alberta. It is prevalent, life-threatening, and complex in scope, requiring interaction between primary care physicians, radiologists, gastroenterologists, surgeons, and oncologists. Surgery is recognized worldwide as a major prognostic factor in rectal cancer outcomes, as 94% of all patients with rectal cancer will receive surgery. While many patients receive excellent care from beginning to end, rectal cancer recurrence rates vary across Alberta. Variations exist across the province in pre-operative staging capabilities, application of best surgical techniques, pathologic grading, and use of neoadjuvant and adjuvant therapies.

In 2014, the Cancer SCN received funding from Alberta Innovates Health Solutions’ Partnership for Research and Innovation in the Health System (PRIHS) opportunity to focus on multidisciplinary team care for stage II and III rectal cancer patients. The project involves developing and implementing a rectal cancer clinical care pathway to address appropriate preoperative staging, consideration of neoadjuvant and adjuvant therapy, and appropriate surgery. The pathway is being developed in collaboration with multidisciplinary physician groups (radiologists, surgeons, oncologists, and pathologists) as a comprehensive sequence of interventions tailored for local practice environments. Pathway implementation includes physician engagement and education, implementation of structured reporting checklists, development of a measurement and reporting system, and the creation of tools to support the establishment of multidisciplinary tumor boards.

As clinicians we all strive to provide quality care to our patients. The healthcare system is complex and not all parts are always coordinated to achieve the best outcomes for patients. We can do better, we can learn and we can improve. Over the past 3 years, the Cancer Strategic Clinical Network has been a critical support to the Alberta rectal cancer community in elevating care to best practices using evidence and data. Support from the Cancer Strategic Clinical Network has brought a broad scope across the continuum to the innovations in care that the rectal cancer community have implemented, a large scale with uptake by clinical teams across the province, and a sustainable culture of measurement and learning in the rectal cancer community. The landscape of how we deliver and measure care is being molded to provide excellence in care to all Albertans with rectal cancer and achieve the best outcomes.

- Dr. Todd McMullen
Division Director, Surgical Oncology, Cross Cancer Institute
Provincial Breast Health Initiative

While some patients receive excellent breast cancer care in Alberta and patients have high rates of overall survival comparable to those achieved elsewhere in Canada, the lack of overall coordination across the illness trajectory leads to delays in diagnosis and treatment, missed opportunities for access to the right care from the right practitioner at the right time, considerable patient anxiety, and inappropriate and costly use of system resources. Currently in Alberta, patients receiving breast cancer surgical care are, on average, staying overnight in hospital far more often than required resulting in costly and unnecessary use of health system resources. This work will design and implement pathways to reduce diagnostic delays and unnecessary testing for women with suspicion of breast cancer and that facilitate faster recovery after mastectomies or lumpectomies in medically fit patients.

In addition, this initiative will advance breast reconstruction care through a plan for surgical coordination, access to provincial patient education resources, and a robust measurement system.

This multi-year initiative is intended to improve care across the continuum for women at risk of or with breast cancer in Alberta. This work is a pan-SCN initiative (Cancer SCN, Surgery SCN, and Primary Health Care Integration Network) that includes partnerships with patients/families, CancerControl Alberta, the five Zones, Diagnostic Imaging, and Pathology and Laboratory Services.

Strong patient engagement has been a focus since the inception of this work. Patient advisors have attended kick-off meetings and are embedded within the Advisory Committee and working groups. Patient focus groups have also been held to better understand their identified concerns while navigating through their care journey. As this initiative aims to reduce wait times and improve system efficiencies, enhanced patient satisfaction, and reduced anxiety are key expected outcomes of this work.

"The Alberta breast cancer community of providers, administrators and patients is a passionate and dedicated group striving to make care better for Albertans with breast health issues or breast cancer. Working collaboratively with the multiple partners including the Strategic Clinical Networks, planning is underway on multiple care pathways including expediting diagnostic work-up of suspicious breast lesions, delivering major breast cancer surgery as day surgery, standardizing patient education content and delivery, and measuring quality of care."

- Dr. Dave Olson
  Co-Lead, Comprehensive Breast Care Program, Edmonton

and

- Dr. May Lynn Quan
  Associate Professor of Surgery and Oncology, University of Calgary
Bladder cancer is the fifth most common cancer, accounting for 5% of all new cancers (738 patients diagnosed in Alberta in 2012). It is also one of the more persistent cancers, often requiring many treatments to prevent and treat recurrences. For patients, the prospect of losing such an important organ can be devastating, as independent living and functioning are often tied closely to bladder function. Early detection and appropriate management are important factors in determining patients’ ability to function and maintain quality of life, as well as long term chances of survival.

The spectrum of bladder cancer care in Alberta is currently disease/symptom focused and uptake of best practices across Alberta is inconsistent. Provincial data from patients diagnosed between January 2007 and 2011 in Alberta have demonstrated that the rate of perioperative chemotherapy is variable by region, with differences as large as 50% between the major centres. There have also been no major improvements to survival for bladder cancer patients over the past 30 years.

Medical oncologists, radiation oncologists, and urologic oncologists in Alberta recognize the need to improve outcomes for bladder cancer patients and with support from the Provincial Gastrointestinal Tumour Team, there is a strong desire to make a change.

This initiative will develop and implement an evidence-based, patient-informed clinical care pathway for bladder cancer that will standardize the patient experience and patient care, improve patient reported outcomes, and build capacity for the future. Patients will play a lead role in further scoping this work and identifying priority areas of focus. Patient and Community Engagement Researchers (PaCERs) have been contracted to lead focus groups across the province. From these learnings, a summary report will be developed that includes patient quotes, a summary of key messages, and recommended next steps on where to concentrate initial efforts. Patient advisors and PaCERs will remain embedded within the project and assist with co-design and implementation of provincial bladder cancer pathway work.

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**Cancer SCN - Key Initiatives**

**Provincial Bladder Cancer Pathway**

Bladder cancer is the fifth most common cancer, accounting for 5% of all new cancers (738 patients diagnosed in Alberta in 2012). It is also one of the more persistent cancers, often requiring many treatments to prevent and treat recurrences. For patients, the prospect of losing such an important organ can be devastating, as independent living and functioning are often tied closely to bladder function. Early detection and appropriate management are important factors in determining patients’ ability to function and maintain quality of life, as well as long term chances of survival.

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**Bladder cancer is the fifth most common cancer, accounting for 5% of all new cancers**

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**I received an email from Wellspring Calgary in the Fall of 2012 about becoming a PaCER (Patient and Community Engagement Researcher). I was recovering from immunotherapy treatments for bladder cancer and looking for a new purpose. I completed the PaCER training and have been part of several patient health studies. I am completely hooked on this concept of trained patients doing research with fellow patients.**

**In the spring of 2016, because of the link that PaCER has with the SCNs, I was given the opportunity to become a Patient Advisor for the Cancer SCN Core Committee. I felt that things had really come full circle when the Cancer SCN informed me of a proposal coming forward to do a study on the development of a bladder cancer patient care pathway in Alberta. As a bladder cancer survivor and support group facilitator, I’m well aware of the many issues facing bladder cancer patients in Alberta and look forward to being part of the solution to improve patient care. I wouldn’t have had this wonderful opportunity if it wasn’t for the formation of the Cancer SCN. Thank you!**

- Susan Nguyen
  Patient and Community Engagement Researcher
  Cancer SCN Patient Advisor
STRATEGIC GOAL #2:
Support initiatives that facilitate appropriate tests and treatments and reduce unnecessary tests and treatments to strengthen appropriateness of care.

This strategic goal focuses on leveraging evidence-based information to engage physicians and patients in conversations about appropriate tests and treatments to ensure the patient receives the proper care, at the proper time, by the proper provider. This strategic goal also explores opportunities to move treatment options into community settings, where appropriate, to reduce pressure on the acute care system and deliver care in the most appropriate setting.

PRIORITY WORK UNDERWAY:

Acute Care Utilization for Albertans with Oncological and Non-Oncological Advanced or End Stage Illness

Many patients with oncological and non-oncological advanced or end-stage disease spend months or years in a chronic disease state in need of optimal physical, spiritual, psychological, and social care. Those with severe illness often have increased symptom burden and find themselves presenting to Emergency Department (ED) for care. Currently, patients with advanced or end-stage disease, who are actively dying, have unplanned visits to ED with emergent or unmet urgent needs. These patients often lack advanced care planning knowledge and documented “goals of care” designations. These patients may be admitted to the ward, occasionally to Critical Care, and may die in hospital without receiving evidence-based palliative or end-of-life care. This trajectory has not been systematically quantified in Alberta and the nature and magnitude of gaps in care have not been well defined.

Unplanned acute care utilization in Alberta for adult patients with advanced or end-stage illness or at end of life is currently not being measured for oncological or non-oncological disorders.

Preliminary analysis shows considerable variation among Zones in the proportion of patients who die in hospital from cancer versus non-cancer. The details of these variations are poorly understood. To understand whether there is good value associated with the use of acute care resources expended in the final weeks and months of life, there is a need to understand what Albertan patients and families want and need for this type of care. In many provinces, the ED is the default care setting for palliative patients with unplanned needs, adding to the capacity strain on EDs and the acute care system.

This study aims to understand why Albertans with advanced or end-stage disease or at end-of-life, access acute care services. Acute care resources are costly. There is a need to understand whether Alberta Health Services is meeting the needs of patients and families seeking care during these tenuous times of life. Preliminary feedback from caregivers suggests acute care interventions may not be effective, and may not align with care wishes. Knowledge gained from this project will provide a comprehensive understanding of whether there is good value for unplanned acute care utilization for advanced or end stage illness and at end of life. This data will set the stage for optimizing value of advanced or end-stage-illness care and end-of-life care delivery in multiple care settings.
STRATEGIC GOAL #3:
Engage in research and innovation to advance emerging priorities in cancer care delivery.

The cancer research landscape in Alberta is rich with basic scientists, health services researchers, clinical researchers, and population health researchers. Collaborations and strategic alignment with CancerControl Alberta, the Charbonneau Cancer Institute at the University of Calgary, and the Cancer Research Institute of Northern Alberta (CRINA) at the University of Alberta are critical. Additional basic research generated out of the University of Lethbridge further complements the work being done at the Charbonneau Cancer Institute and CRINA. Among the Canadian Institutes of Health Research (CIHR) four research pillars, health services research in cancer remains the one area that is less developed in Alberta. There is no organized health services research program for cancer at either of the universities or within CancerControl Alberta. As such, this represents a niche area that the Cancer SCN is well-positioned to support by complementing the work being done by our partners. Cancer health services research is well-reflected in the key messages brought forward through the Core Committee consultation process.

SCNs are mandated to develop a focused provincial health research program in collaboration with academic partners, and to create new knowledge and translate knowledge into measurable improvements for Albertans. The goals of the Cancer SCN Research and Innovation Strategic Plan were developed largely from the stakeholder consultation process. A more detailed description of the Cancer SCN's Research and Innovation Strategic Plan can be found on the Cancer SCN webpage at: http://www.ahs.ca/cancerscn. Recent changes within the research arm of the leadership team provide opportunities for revisiting and updating this plan to further align our research with network priorities.

The Cancer SCN hosts an annual seed grant competition aiming to influence cancer care in Alberta by fostering the development of cancer-related health services research that will impact one or more of the Health Quality Council of Alberta domains of quality: appropriateness, accessibility, effectiveness, efficiency, safety, and acceptability. Objectives include increasing provincial capacity for cancer-related health services research; supporting projects that advance knowledge and/or inform decision making related to enhancing clinical effectiveness and optimizing the value of healthcare delivery; achieving positive health impacts for Albertans with cancer and their families; and achieving positive economic impacts for the health system. This seed grant competition is integral to achieving our three strategic goals and the seed grants are a vehicle to strengthening care pathways, improving appropriateness, and innovating cancer care delivery (see Appendix B for seed grant recipients).

Work underway by the Cancer SCN that strengthens research and innovation for cancer care falls under two categories: support to funded research and emerging research. Below are some examples that reflect the breadth and scope of some of the research partnerships being undertaken by the Cancer SCN:

RESEARCH PARTNERSHIPS

The Alberta Cancer Exercise “ACE” Program for Cancer Survivors:
Supporting Community-Based Exercise Participation for Health Promotion and Secondary Cancer Prevention

With partnership from CancerControl Alberta, the Universities of Alberta, Calgary, and Athabasca, the YMCA, the City of Calgary, Wellspring, as well as cancer survivors, the ACE Study received funding for five years from Alberta Innovates Health Solutions' Cancer Prevention Research Opportunity, through the Alberta Cancer Prevention Legacy Fund. The Cancer SCN is working with the research team to facilitate discussions and collaborative relationships between key stakeholders to create opportunities for knowledge translation. The information generated from this project will be used to inform the planning of future Cancer SCN research projects and initiatives.
BETTER WISE Project to Improve Cancer and Chronic Disease Prevention and Screening

The Cancer SCN is collaborating with a research team at the University of Alberta and other partners to develop and test an intervention that includes electronic tools, pathways for cancer survivors, and considers poverty. The BETTER WISE (Building on Existing Tools to Improve Cancer and Chronic Disease Prevention and Screening in Primary Care for Wellness of Cancer Survivors and Patients) Project is a multi-province (Alberta, Ontario, and Newfoundland and Labrador) study funded for five years by Alberta Innovates’ Cancer Prevention Research Opportunity, through the Alberta Cancer Prevention Legacy Fund.

Enhancing Human Papillomavirus (HPV) Vaccination In First Nations Populations in Alberta (EHVINA Study): Towards a Sustainable, Community-Driven, Knowledge Translation Strategy

Co-developed with Elders from the Tsuu T’ina and Stoney First Nations, the Enhancing HPV Vaccination In First Nations Populations in Alberta (EHVINA) Study received funding over five years from Alberta Innovates Health Solutions’ Cancer Prevention Research Opportunity, through the Alberta Cancer Prevention Legacy Fund. This project differs from others because the research and strategies to increase HPV vaccination are being co-developed with First Nations members, in a culturally safe way that places First Nations knowledge systems, ways of knowing, and values and perspectives at the centre of the work. We believe that empowering First Nations will help address the needs of First Nations communities and help overcome barriers to HPV vaccination. The objectives of this work include establishing baseline HPV vaccination rates; identifying and validating the known barriers and supports to HPV vaccination; and mapping identified barriers and supports onto a theory-informed, context- and culturally- secure knowledge translation intervention to increase HPV vaccination uptake within Alberta FN communities.

Palliative Care, Early and Systematic (PaCES): Impact on Patient and Health System Outcomes

Living with worsening cancer creates significant distress for patients and their families, especially when care transitions abruptly from a focus on the life-prolonging therapies delivered by cancer centers to a focus on palliative care at home (supportive care for enhancing quality of life). From prior work, it is known that to improve these transitions patients and their families need a sense of continuity in their care, opportunities to discuss preferences for future care, and prompt access to specialized palliative care when required. It is also documented that patients who receive palliative care supports earlier in their illness (e.g., while still being treated with chemotherapy) tend to have less hospital visits and other aggressive treatments when they are at the end of their lives. Early palliative care is associated with improved quality of life, reduced family distress and lower overall healthcare costs. Currently, however our cancer systems struggle to provide early palliative care. This research project aims to create the action needed to ensure the palliative needs of all patients, and their families, with non-curable cancer are routinely supported. Particular objectives to achieve this are: (1) to create a “pathway” or roadmap to guide clinicians on when and how to identify and relieve suffering associated with colorectal cancer, developed together by patients and families, cancer, palliative and family doctors and nurses; and, (2) to help teams use the pathway to overcome any of their local system challenges. The research team will measure the impact of this innovative pathway of care over time on patients, their families and on personal and healthcare system costs. Senior provincial health services leaders will be involved in the project to ensure sustainability after the project. The spread and adaption of the learning from this project will help people living with other cancers and in other regions.

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Looking Forward & Next Steps

This 2017-2020 Transformational Roadmap outlines the Cancer SCN's three year priorities and strategies that will contribute to better patient care and outcomes.

Our focus is to bring evidence and innovative ideas forward, addressing unexplained variation, and ensuring quality and accessible care and support to Albertans at risk of or dealing with cancer.

Strategies identified in this three year plan ensure Alberta is a leader in prevention, treatment and application of evidence-based practice at all points along the cancer continuum.

Partnerships with patients, families, communities, clinicians, researchers, and administrators are foundational. To be successful, we continue to develop partnerships and collaborations that extend beyond the health system.

The Cancer SCN will continue to evolve and develop in our capabilities. We have an extensive network of stakeholders that will continue to bring their voices forward to advocate for the best possible care in the province.
Appendix A:

CANCER SCN LEGACY PROJECTS TRANSITIONED TO OPERATIONS

Since its inception, the Cancer SCN has partnered with multiple stakeholders, and completed, several large provincial initiatives that have impacted the delivery of cancer care across Alberta.

Enhanced Recovery After Surgery (ERAS®) Protocols and International Guidelines - ERAS® has become a global standard in the way patients undergoing surgery are managed, from pre-admission through to discharge. Simple evidence-based strategies, such as reduced use of narcotics, carbohydrate loading, and early mobilization, have demonstrated significant reductions in surgical complications, less morbidity and reduced length of stay. Furthermore, patients report high levels of satisfaction with ERAS®.

To ensure sooner, safer and smarter delivery of surgical care across the province, the Surgery and Diabetes, Obesity and Nutrition SCNs initiated the ERAS® project in 2013. Since 2013, ERAS® has been successfully piloted with colorectal patients in two AHS sites. Through funding from Alberta Innovates (AI) and the Partnerships for Research and Innovation in the Health System (PRIHS) competition, the project is expanding across the province to include other surgical areas, including multiple types of cancer surgery.

The Cancer SCN continues to contribute to the provincial ERAS® initiative. Alberta is leading the development of several ERAS® protocols. The most recent ERAS® protocol, led by Cancer SCN Senior Medical Director, Dr. Joseph Dort, describes evidence-based strategies for patients undergoing head and neck cancer surgery. We expect that implementation of the protocol will result in better recovery for patients undergoing head and neck cancer surgery with fewer complications and higher value care delivery.

Head and Neck Cancer Perioperative Pathway – The treatment of head and neck cancer (HNC) is complex; it requires expertise and involvement from a range of health professionals because of the vital functions affected by both the cancer and its treatment. Over 600 new HNC cancers are diagnosed each year in Alberta, with about 200 of those patients requiring major HNC surgery involving reconstruction. Led by Head and Neck surgical teams in Edmonton and Calgary, with support from the Cancer, Critical Care, and Surgery SCNs, a provincial clinical care pathway for HNC patients was developed to combine best practices, reduce inappropriate variation, and maximize value from existing capacity. This resulted in changes to perioperative care including a more consistent approach to pre- and post-operative education, the establishment of nutritional and mobilization protocols, the development of an automated monthly dashboard report, and significant improvements to health outcomes.

eReferral – Approximately 13,500 referrals are made to an associate or tertiary cancer centre in Alberta every year. According to Alberta’s Cancer Plan (2013), by 2030 the projected number of new annual referrals is expected to be 27,000 (a 65% increase from 2010). To facilitate timely referral into cancer centres, the Cancer SCN partnered with the Path to Care eReferral team and CancerControl Alberta to test how automation of a paper-based system might optimize the referral process across Tumour Groups. An evaluation of the technology is underway for breast and lung cancer referrals as well as hip and knee referrals in collaboration with the Bone and Joint Health SCN.

Alberta Thoracic Oncology Program (ATOP) – The estimated survival of lung cancer patients in Alberta is 14%; this highlights the importance of early detection, diagnosis and consultation for one of Alberta’s most prevalent cancers. Across Alberta in 2014, an estimated 2,100 new lung cancer cases were expected to be diagnosed, while an estimated 1,570 Albertans were expected to die from lung cancer (Canadian Cancer Society, 2014). Since 2010, the Cancer SCN has worked with provincial thoracic surgeons, nurse practitioners, pulmonologists, and radiologists to develop the Alberta Thoracic Oncology Program (ATOP) and its two rapid access clinics that expedite detection, diagnosis, and specialty consultation for patients with suspected lung cancer. In 2014, the ATOP initiative was transitioned to zone operations in both Edmonton and Calgary with service available to all Albertans with suspected lung cancer.
### Appendix B:

#### 2016 SEED GRANT RECIPIENTS

<table>
<thead>
<tr>
<th>Lead Investigator</th>
<th>Project Title</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Janine Giese-Davis</td>
<td>Implementing nurse-led telephone survivor clinics for early-stage breast cancer</td>
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<tr>
<td>Sasha Lupichuk</td>
<td>Unnecessary imaging for metastasis with PET, CT and radionuclide bone scans in stage 0/II breast cancer patients</td>
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<tr>
<td>Edith Pituskin</td>
<td>Approaches in adjuvant endocrine therapy education and decision-making (APHRODITE Study)</td>
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<tr>
<td>Harvey Quon</td>
<td>Optimizing active surveillance in prostate cancer</td>
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#### 2015 SEED GRANT RECIPIENTS

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<td>Vickie Baracos</td>
<td>Characterizing cancer-associated malnutrition in early stage colorectal cancer patients undergoing surgery</td>
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<td>Janine Giese-Davis</td>
<td>Long-term follow-up of adult survivors of childhood cancer: Bridging the gap between oncology care and primary care</td>
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<td>Judith Hugh</td>
<td>Decision tools for chemotherapy in estrogen receptor positive breast cancer patients</td>
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<td>Todd McMullen</td>
<td>OR science point of care diagnostics</td>
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<td>Ivo Olivotto</td>
<td>Risk and severity of radiation induced brachial plexopathy with hypofractionated or conventional radiation therapy for node-positive breast cancer</td>
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<td>Edith Pituskin</td>
<td>NOVEL 2 (Oncology): Nurse practitioner care in Alberta: Evaluation of quality, value, and outcomes</td>
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<td>Jana Rieger</td>
<td>Maxilla reconstruction: The impact of surgical planning and reconstruction guides on speech and swallowing outcomes in head and neck cancer</td>
<td>$5,000</td>
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<tr>
<td>Gordon Wilkes</td>
<td>Custom external breast prostheses for patients with partial of full mastectomies using a digital pathway (pilot study)</td>
<td>$5,000</td>
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References


