

| Strategic Clinical Networks™

Recovery, Renewal and Transformation

2021-2022 Annual Impact Report

April 1, 2021 to March 31, 2022



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Executive summary

Alberta's Strategic Clinical Networks™ (SCNs™), Provincial Programs and their Scientific Offices work closely with patients, clinicians, researchers, universities, operational leaders, community partners and other stakeholders to improve health and care, apply new knowledge and get evidence into practice.

Their commitment to health research and innovation, knowledge generation and knowledge translation on a provincial scale is helping build a resilient, high-performing health system and positively impacting health outcomes, patient care, and patient, family and provider experiences.

Annual Impact Report 2021-22

At-a-glance

Advancing knowledge

The SCNs, Provincial Programs and their partners co-authored or contributed to:

437

peer-reviewed publications

50+

reports, white papers, evaluations & other 'grey literature' or non-peer-reviewed publications

34

other knowledge products (digital resources, training modules, data products)

\$38.9M

grant funding awarded (successful applications), supporting health research in Alberta

70%

of research grant funding obtained from sources outside Alberta

Building capacity & capability

400+

scholarly presentations, workshops, learning and outreach events

43

patients sponsored to receive PaCER training

91

trainees supervised or mentored by SCN leaders

Informing decisions & policies

The SCNs, Provincial Programs and their partners co-authored, co-led and collaborated to support the development of:

28

provincial guidelines, health technology assessments, quality care standards, evidence-informed recommendations and decision tools

24

evidence reviews (COVID- and non-COVID related)

24

clinical and patient pathways

Improving health outcomes

Actions

Supported implementation & provincial spread of health innovations, including:

- Fracture Liaison Service
- Rapid Access Clinics for MSK assessments
- FAST centralized intake offices for MSK surgery
- ERAS pathways
- Venting Wisely
- RATIONALE (Albumin optimization)
- ACATS-E (coding targets for endoscopy)
- Alberta FICare (neonatal intensive care)
- Incremental hemodialysis
- Multidisciplinary Long COVID supports
- Diagnostic pathways for lymphoma, colorectal cancer, head and neck cancer, & other cancers

Acute care

- Reduced mortality, fewer complications and hospital readmissions following surgery
- Improved mobilization and reduced mortality following hip replacement
- Improved outcomes and reduced disability following ischemic stroke and treatment with EVT and nerinetide
- Reduced risk of complication for patients with diabetes due to enhanced glycemic management in hospital

Primary and secondary care

- Reduced pain and occurrence of secondary fractures with conservative management & fracture prevention
- Improved screening and assessment for financial strain, diabetic retinopathy, and foot ulcers, reducing the risk of diabetes-related vision loss / lower limb amputation
- Improved access to Long-COVID assessment, triage and community rehabilitation services

Supporting positive economic & social outcomes

- Access to timely diagnosis, supports and prioritization of cancer cases, improving outcomes and reducing the need for surgical interventions and radiation therapy.
- Implementation of central access and triage (ASI FAST) and the Specialty Access Bundle (SAB) is underway provincially and expected to improve utilization of specialist time, operating rooms, and quality of surgical referrals, reducing wait times and increasing efficiency, appropriateness, and coordination of care for Albertans.
- Expanded access to EVT therapy: estimated cost avoidance of approximately \$42,287 per patient annually (a \$3.60 return for every \$1 invested in EVT).
- The ACBI quality improvement initiative is underway at Alberta's 14 largest acute care sites and is expected to improve patient flow, care transitions, patient outcomes & experience while standardizing care and reducing length of stay and ALC days.

Leadership message



Dr. Francois Belanger, Vice President, Quality & Chief Medical Officer, Alberta Health Services

Dr. Dave Zygun, Interim Associate Chief Medical Officer, Strategic Clinical Networks

Tracy Wasylak, Chief Program Officer, Strategic Clinical Networks

Dr. Braden Manns, Interim Vice President, Provincial Clinical Excellences, Alberta Health Services

Year in Review

After two years of working under the intense conditions created by a global pandemic, *Recovery, Renewal & Transformation* seemed a fitting theme for this year's annual report. By definition, these processes involve change, learning and rebuilding. They also signify potential to restart, reimagine or rebalance our priorities, efforts and actions.

Recovery is an important part of the patient's journey. It's also essential for healthcare providers and our health system as a whole as we continue to adapt to new realities, indirect impacts of the COVID-19 pandemic, and new challenges associated with a resurgence of respiratory illness.

As a learning health system, the knowledge and experience we've gained over the past year will continue to serve us into the future. We have forged new collaborations with community and industry partners and observed rapid uptake of virtual technologies, clinical guidelines and best practices on a provincial scale. The pandemic has reaffirmed the need for evidence-based decision-making, integrated models of care, and collaboration across sectors. It has created opportunities to *re-evaluate* existing practices, priorities, and policies with a fresh perspective, new knowledge and experience.

The approval and availability of COVID-19 vaccines in early 2021, coupled with declining hospitalizations and ICU admissions has created space to evaluate longer-term impacts of the pandemic and support plans for Alberta's post-COVID recovery. This work continues, spanning all areas of health, and includes sustaining new models of care, positive practice changes achieved during the pandemic, including building on the expansion and uptake of virtual care.

Over the past months, AHS has *resumed action in priority areas*, including the provincial rollout of Connect Care (Waves 3, 4 and 5 now launched), Alberta's Surgical Initiative, Long COVID rehabilitation, Indigenous health, and addiction and mental health. The SCNs, Provincial Programs and Scientific Offices play an important role in supporting these efforts, improving health outcomes, and maximizing our capabilities as a high-performing health system.

Outlook for 2022-2023

The SCNs and Provincial Programs are incredibly proud of the progress we have made over the past year alongside our vast network of colleagues and diverse partners. Together, our work has supported front-line teams, health and community partners and the people of Alberta, and we look forward continued engagement and collaboration with patients, health and community partners throughout Alberta to achieve equitable, sustainable solutions to our most pressing health challenges.

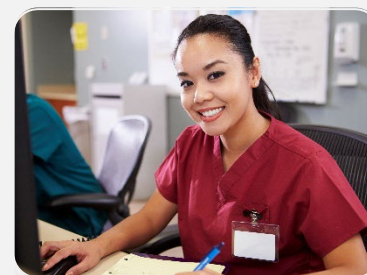
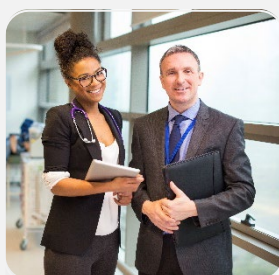
As teams continue to renew efforts that were temporarily paused or slowed due to the pandemic, we remain united and *reinvigorated* in bringing together people, research and innovation, moving evidence into practice, and creating positive, transformative change that improves health and care for the people of Alberta.

Overview | About this report

This report highlights the collective achievements of Alberta's Strategic Clinical Networks™ (SCNs™), Provincial Programs and their Scientific Offices over the past fiscal year (April 1, 2021 to March 31, 2022) and the impact of this work. It celebrates important collaborations and acknowledges the extensive contributions of patients and families, Alberta's university and research community, clinical, operational and community partners, and many others, and the mutual benefits of these partnerships.

In evaluating impact, the report uses a framework developed by the Canadian Academy of Health Sciences (CAHS) and performance indicators common to all SCNs. The CAHS framework is widely used by government, funding agencies, and research institutions to evaluate the impact of health research. For details on methods and indicators, see [Appendix A](#).

We welcome your feedback or suggestions for future impact reports. To share your ideas, please contact us at StrategicClinicalNetworks@ahs.ca.



Creating the future of health and care together

Collaboration and engagement are essential to the work and success of Alberta's SCNs and Provincial Programs. Each network and program has a provincial structure and focus with membership that spans Alberta's five health Zones. This structure provides an important mechanism to support rapid learning, mobilization of evidence and uptake of practice changes on a provincial scale, a conduit for collaboration and coordination, and decision making that addresses local needs.






Bringing together diverse stakeholders leverages critical expertise, knowledge, experience and resources; avoids duplication; and builds capacity to spread and scale successful innovations, improve health, advance evidence-based health system improvements, and transform care.

Over the past year, the configuration and composition of each network remained relatively stable. SCNs, Provincial Programs and their Scientific Offices continued to leverage relationships with Zone operations, patients, families and caregivers, and community, academic and provincial partners to ensure high-quality care to the 4.4 million people of Alberta. Patients, families and caregivers with

lived experience, clinician leaders and frontline care providers, leading researchers, programs and institutions, and community partners actively contributed to the work of each network. This structure provides a seat at the table for all stakeholders to channel their knowledge, experience and resources for maximum impact.

For specific examples of contributions and collaborations with network partners over the past fiscal year, see the [Patient Engagement & Research Collaboration Summary](#).

By the numbers

	4.4 million Albertans	
	11 Strategic Clinical Networks	5 Provincial Programs
	4,800+ Core Committee and working group members ^a	146 Patient and family advisors ^{b,c}
	450+ Clinician, operational leaders & community partners	25+ primary care physicians
	65 faculty from the University of Calgary & University of Alberta in SCN leadership roles	1,775 active research network members
	25+ industry partners	80+ partnerships with local or national research institutes and health organizations

NOTES:

^a Members include stakeholders from all 5 Zones; AHS and Covenant Health; all major hospitals and care facilities; urban, rural and remote communities, First Nations communities and Indigenous Wellness Centres. Total includes 965 Core Committee members and 3,894 working group members.

^b Total includes members of the MNCY SCN and Medicine SCN's Patient and Family Advisory Councils (PFACs).

^c 14 Patient and Family Advisors also serve as project co-leads and 21 are actively engaged as patient researchers.

Collective achievements, impact and value

Collective achievements and contributions of the SCNs, Provincial Programs and their Scientific Offices during the 2021-2022 fiscal year are described using the CAHS impact framework. The framework uses five domains to characterize areas of impact.



These domains reflect a system view of health research and innovation. Activities in one domain fuel and impact the next by providing the knowledge resources, capacity, investment and momentum to advance health system improvements that benefit Albertans, keep pace with emerging evidence, and support AHS' mission, vision and values.

All SCNs, Provincial Programs and their Scientific Offices actively engage in work that supports each of these domains through activities such as systematic inquiry, measurement and evaluation; knowledge generation, management and translation; and implementation and sustainment of practice changes. This work is reflected in the AHS Innovation Pipeline ([Appendix B](#)) and helps drive practice change, outcome improvement, and health innovation and transformation provincially.

This section of the report highlights the results of these efforts; notable achievements, output and deliverables over the past year; and the impact and value this work is having for the people of Alberta.

Evidence into action

The Strategic Clinical Networks, Provincial Programs, and their Scientific Offices play an important role in mobilizing evidence and integrating it into daily practice. Our teams include leading scientists, clinicians and researchers who rigorously monitor data, evidence and emerging research from Alberta and health systems around the world and bring leading practices and innovations to our province, evaluate them within a local context, and spread and scale those proven to improve health, quality and value.

Zone operations, patients, families, government and community partners are essential in helping define priority needs; developing solutions, guidance documents, patient education and decision support tools; and implementing practice changes that positively impact patient & provider safety, improve health outcomes, and promote equity across the province.

AHS' Innovation Pipeline is a key tool that enables this work and integrates health research with the needs of Alberta's health system. It allows solutions to be pilot tested and scaled provincially if supported by strong evidence of clinical effectiveness and potential to deliver significant impact and value.

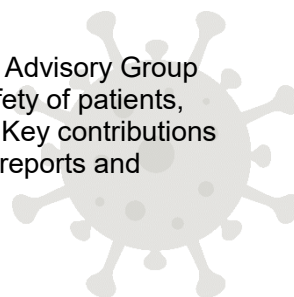
Over the past year, we have seen many examples in which the SCNs, Provincial Programs and their Scientific Offices rapidly reviewed and synthesized evidence to support front-line clinicians, health service delivery, capacity planning and coordination, and decision making on both a local and provincial scale. For example:

- ✓ Evidence reviews have informed risk assessments, clinical guidelines and therapies for patients in many areas of health, COVID-19 screening methods, immunization strategies, and public health protocols.
- ✓ Health evidence reviews and extensive stakeholder engagement have also supported clinical pathway development, patient safety and clinical excellence across all zones, and knowledge translation activities that address present and future-oriented needs of Alberta's health system.

Highlights from 2021-2022

PUBLIC HEALTH & PANDEMIC RESPONSE AND RECOVERY

The SCNs and Provincial Programs continued to participate as part of AHS' Scientific Advisory Group (SAG). This work has supported the care and management of COVID-19 patients, safety of patients, families, and healthcare providers, and health service delivery through the pandemic. Key contributions over the past fiscal year are highlighted below. For details on other pandemic-related reports and deliverables, see the [Other Outcomes & Deliverables Summary](#).



Post-COVID Playbook outlines impacts and strategies to mitigate indirect effects of the pandemic and optimize clinical service delivery during Alberta's recovery

SCNs, Provincial Programs and teams across AHS worked together to understand the needs of Albertans experiencing post-COVID condition and impacts of the pandemic on (i) people with health conditions unrelated to COVID-19 and (ii) those with complications related to COVID-19 infection. This information was compiled into a **Post-COVID Playbook** that focused on clinical service delivery and was shared with the AHS Board, Executive Leadership Team, and Executive Committees in fall 2021.

Using Alberta data, the Playbook identified observed impacts to date, service pressures, risks, and potential patient backlogs across 16 clinical service areas. The team also outlined strategies and recommended actions to mitigate these pressures and metrics to monitor progress and recovery provincially. The Playbook also considered potential costs, impacts on corporate areas (including the health workforce), and opportunities to sustain health system improvements and positive indirect impacts of COVID-19.

This work has been instrumental in understanding the direct and indirect impacts of COVID-19, and enabling AHS to adapt care models and optimize services (e.g., Rehabilitation Advice Line, Post-COVID outpatient clinics) to support patient needs. The Playbook has: (i) supported organizational preparedness, policy and operational decision-making; and (ii) enhanced understanding of the direct and indirect impacts of COVID-19 on health outcomes, clinical utilization, service capacity and resource requirements.

Extensive engagement, review, planning and prioritization by the AHS Executive Leadership Team and Sustainability Program followed and subsequently informed the development of detailed implementation plans to evaluate impact and return on investment of short-listed initiatives.

In addition to the Playbook, SCNs and Provincial Programs co-authored:

13

Rapid
evidence
reviews

These reviews examined best available evidence on topics such as:

- Reducing COVID-19 transmission
- Risk factors for severe COVID-19 outcomes
- Optimal respiratory care for patients with COVID-19
- Managing and preventing burnout in healthcare providers
- Immunization following COVID-19 infection
- Post-COVID conditions and complications

5+

Provincial
guidance
documents

Examples:

- [Critical care triage during pandemic or disaster – A framework for Alberta^a](#) (May 2021)
- Provincial acuity criteria for Medicine patient load leveling (Oct 2021)
- [The timing of surgery following COVID infection^b](#) (Jan 2022)
- Medicine capacity plan (Jan 2022)
- [Long COVID pathway: COVID-19 recovery & rehabilitation after COVID-19: Resources for health professionals](#)

These documents served as important decision tools, providing guidance to address critical questions and capacity pressures as part of Alberta's pandemic response and recovery. The Critical Care Triage Protocol is an important measure to prepare for a future emergency or scenario in which pressure on ICU resources exceed capacity. It provides an objective, system-wide approach, guided by best practice and validated clinical assessment tools, to ensure triage decisions are made ethically and fairly.

NOTES: Rapid evidence reviews were developed in collaboration with SAG, and provincial guidance documents were co-developed with SCN, other AHS and provincial partners. For example:

^a Critical Care SCN, clinicians and ethics professionals as part of the Provincial Critical Care Pandemic Committee.

^b AHS Infection Prevention & Control (IPC), the Surgery SCN Scientific Office, Evidence Decision Support Program (EDSP), and Provincial Surgical Operations Committee (PSOC)

CLINICAL PATHWAYS AND GUIDELINES THAT SUPPORT HIGH-QUALITY, PATIENT-CENTRED CARE

Provincial pathways, guidelines and best practices reduce unwarranted variation, improve quality, safety and health outcomes, and can enhance the experience of patients, families, and healthcare providers. Clinical pathways support transitions along the patient journey, standardized care processes informed by evidence and research, improving system capacity, access and value. In many cases, pathways support early screening and assessment and increased appropriateness of referrals. They can also reduce unnecessary diagnostic testing and imaging, improving wait times and patient and provider satisfaction.

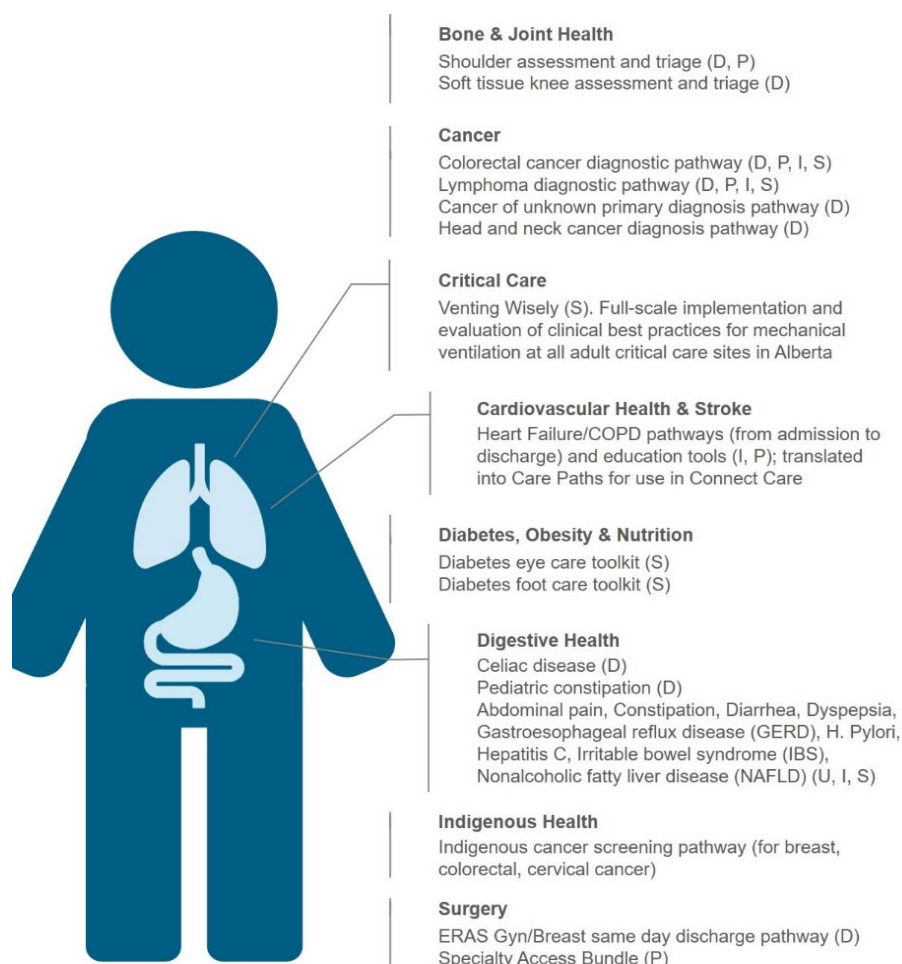
Advanced work on

24

clinical and patient pathways

In 2021-2022, SCNs worked with key stakeholders to:

- ✓ support the development of new pathways (D)
- ✓ update existing pathways (U)
- ✓ pilot and evaluate clinical pathways (P)
- ✓ support their implementation (I) across sites and zones
- ✓ spread and scale them provincially (S)



Clinical pathways positively impact care for patients and providers.

For patients with cancer, an early diagnosis can reduce the requirement for significant therapy interventions, both of which have dramatic impacts on quality of life. The **Head and Neck Cancer Diagnosis Pathway** benefits Albertans with a high likelihood of being diagnosed with a head and neck cancer. Goals of this pathway are to expedite diagnostic processes, improve access to supportive care resources, and ensure patients have the best quality of life possible.



Patient pathways, such as those developed by the [Digestive Health SCN](#), provide evidence-based guidance to help patients understand their condition, manage symptoms, and access care, resources and services.



Tools such as the **Heart Failure/COPD Pathway** provide guidance to healthcare providers, ensuring standardized, evidence-based care from hospital admission through discharge, into the community and primary care. These bundles of tools and resources ensure Albertans receive consistent, high-quality care that aligns with the best available evidence across the province. These pathways have been translated into Care Paths and integrated into Connect Care, improving data and information continuity for patients and health care providers.

Led or supported the development of

14

provincial guidelines, protocols, and quality care standards

SCNs and Provincial Programs led or supported the development of new and updated provincial guidelines, protocols, and quality care standards (QCS) across many areas of health.

These guidelines and protocols draw on best practices and best available evidence, the input and experience of patients, families, clinicians, researchers and operational leaders across Alberta.



Care in the community

Addiction & Mental Health

Virtual (remote-based) delivery of domestic violence & sexual violence interventions

Bone & Joint Health

Conservative management of osteoarthritis (co-developed with Alberta Bone and Joint Health Institute)



Acute care

Cardiovascular Health & Stroke

Canadian Stroke Best Practice Guidelines for stroke investigations

Diabetes, Obesity & Nutrition

In-hospital care of patients with bariatric needs
Adult glycemic management policy suite
Pediatric glycemic management policy suite
Pediatric insulin adjustment protocol

Emergency, Acute Injury or Illness

Pediatric button battery ingestion protocol
Pruritus due to acute urticaria (hives)

Maternal Newborn Child & Youth

Fetal health surveillance toolkit and educational framework

Respiratory Health

New onset or worsening of pre-existing dyspnea (adults)
Supraglottic airway insertion by registered nurses (policy)

Surgery

Surgical site verification and marking

Other

Aligning nursing and inter-professional clinical practice

NOTES:

For additional information about guidelines and decision tools, see the [Other Outcomes & Deliverables Summary](#).

EVIDENCE REVIEWS AND EVALUATIONS THAT INFORM DECISION MAKING

Environmental scans of current practice in Alberta or other health jurisdictions, and evidence reviews focused on emerging technologies, innovations and leading practices contribute to the knowledge base, and practical application of health innovation in Alberta. They provide the evidence needed to inform decision making and support changes in clinical practice and health policy.

Co-authored or contributed to

50+

position papers, evidence reviews, reports, white papers, abstracts, addressing priority topics for Alberta's health system

These reports, commonly known as 'grey literature,' directly support key health system priorities for AHS. They are provincial in scope and provide evidence-informed recommendations and decision support for provincial health policy, health service delivery and transformation at a local and provincial level.

All reports are evidence-based, though some are not peer reviewed.

Examples from 2021-2022 (by topic) include:

System Capacity & Access

International Federation of Emergency Medicine white paper on crowding and access block

Continuing Care

[Improving quality of life for residents in facility-based continuing care: Alberta Facility-Based Continuing Care Review recommendations and final report](#)

Digital Health & Innovation

AHS Virtual Care Evaluation Framework

Review of the impact of virtual visits in primary care

Quality & Patient Outcomes

Burden of vision loss in stroke

Chronic Obstructive Pulmonary Disease and Asthma

Evaluation of GLA:D Alberta

[Future of Cancer Impact in Alberta \(FOCI\)](#)

Osteoarthritis: Innovation in biomechanics, biology and imaging

Province-wide review of MSK care in Alberta's Primary Care Networks

Various health technology reviews, trials, reports and recommendations by the Surgery SCN Evidence Decision Support Program (EDSP)

Women's health in Alberta: Understanding current gaps and metrics

Public Health & Pandemic Recovery

Acute respiratory care in Alberta and the impact of COVID-19: Administrative data snapshot of Impact of COVID-19 pandemic on Primary Health Care utilization in Alberta

Rural & Indigenous Initiatives and Engagement

Critical illness and critical care services use among Indigenous Peoples in Alberta

Development and formalization of the Rural Surgical and Obstetrical Network of Alberta to support rural surgical and obstetrical patients

Rural-urban disparities in realized access to general practitioners, orthopedic surgeons, and physiotherapists among people with osteoarthritis

Disease & Injury Prevention

Partnering with health, social and community service organizations to build and implement a population health needs framework.

Population Health Needs Framework for Service Planning & User's Guide

Sustainability

Return on investment analysis of endovascular therapy (EVT) in Alberta

Position paper on cancer overdiagnosis

Caring for patients with COPD and heart failure in the community



NOTES:

Further examples and details on evidence reviews, reports and decision tools are provided in the [Other Outcomes & Deliverables Summary](#).

OTHER IMPLEMENTATION & KNOWLEDGE TRANSLATION MILESTONES

The SCNs, Provincial Programs and their Scientific Offices rigorously evaluate health innovations as they advance through the AHS innovation pipeline, gathering, synthesizing evidence and refining solutions based on evidence and feedback from patients, healthcare providers, and other stakeholders. This process directly supports getting evidence into practice to improve quality, outcomes, and value.

In 2021-2022, the networks worked with patients, families, front-line clinicians, and operational leaders in all zones to support provincial spread, scale and sustainment of innovations with demonstrated benefits for Alberta's health system. Examples include:

Bone & Joint Health	Fracture Liaison Service (FLS) Expanded to 11 sites (4 out of 5 zones), supporting osteoporosis treatment and fracture prevention in Alberta, safe and effective surgical intervention, and a clear and evidence-informed pathway of care.
	Rapid Access Clinics (RACs) Currently being implemented across Alberta to increase access to standardized MSK assessments and quality of surgical referrals. RACs integrate with the ASI FAST centralized intake offices to reduce wait times for MSK surgery.
Critical Care	Venting Wisely Full-scale implementation and evaluation of clinical best practices for mechanical ventilation progressed at all adult critical care sites in Alberta (15 adult ICUs and 2 cardiovascular ICUs, with remaining 4 units completed by June 2022).
	RATIONALE Completion of unit-specific rollout across all adult critical care units. Current focus is on sustaining gains and practice changes and dashboard development to support ongoing audit & feedback.
Digestive Health	ACATs-E Provincial implementation began in fall 2021 with the goal to complete rollout at 22 of the 50 endoscopy sites in Alberta by September 2022. The remaining 28 sites will come online according to the Connect Care launch schedule.
Maternal, Newborn, Child & Youth	Alberta FiCare Provincial scale and spread to 14 Neonatal Intensive Care Units (NICUs) across Alberta was completed in June 2022 amid the COVID-19 pandemic and Connect Care implementation.
Medicine	Incremental Hemodialysis (Kidney Health Section) This patient-centred approach and strategy to individualize hemodialysis care based on residual kidney function has spread to 8 sites in Alberta.
Primary Health Care Integration Network	Home-to-Hospital-to-Home (H2H2H) Guidelines Continued collaboration and progress made in 2021-2022 to facilitate a coordinated rollout of Alberta's H2H2H guideline .

HEALTH PROMOTION & CHRONIC DISEASE AND INJURY PREVENTION

The SCNs, Provincial Programs and their Scientific Offices continue to work 'upstream' to prevent chronic disease, pain and injury, focusing on resources and initiatives that support health and wellness. Examples include:

Alberta Pain Strategy

A multi-stakeholder initiative co-led by the SCNs and the Pain Society of Alberta and involving more than 360 patients, clinicians, researchers and others from across Alberta. The strategy focuses on three main areas: acute pain, chronic pain and opioid use in pain management.

Over the past fiscal year, the team has advanced a number of key priorities, including developing:

- ✓ an unused opioid return program
- ✓ a mentorship model for chronic pain and addictions that supports primary care teams in caring for patients in their medical home
- ✓ a treatment pathway for individuals who have been using opioids long-term

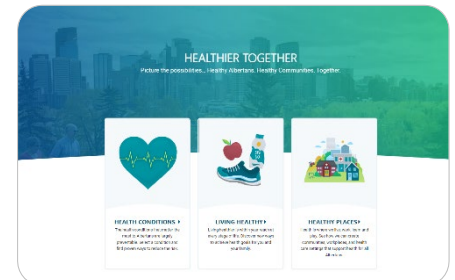
Work is also underway on additional priorities, including pharmacologic interventions, multimodal pain strategies, educational resources, and provincial approaches such as a transitional pain service and integration of chronic pain tools and pathways into Connect Care.



Healthier Together

This is an online resource that helps guide communities toward healthier ways of living and working. The resource targets primary prevention, connecting users with information, tools and strategies that support action for healthier communities, workplaces, schools and health care settings.

The web site includes community-specific dashboards and provides current, reliable, evidence-informed information on disease prevention. It is designed to complement MyHealthAlberta.ca and is a partnership between the Cancer Prevention and Screening Innovation team, Provincial Population and Public Health, the Indigenous Wellness Core, SCNs, Health Link, MyHealth Alberta, Primary Health Care and many others.



Virtual Diabetes Prevention Program

The vDPP is a collaboration between the DON SCN, Alberta Blue Cross, Primary Care Networks, and Yes Health. Its goal is to empower Albertans to live healthy lives by embedding diabetes prevention into our healthcare system, and supporting individuals' food and fitness choices.

In Alberta, approximately 800,000 people live with undiagnosed diabetes or prediabetes, and the incidence of diabetes is increasing. This program, which launched as a pilot study in 2021, targets Albertans living with prediabetes who are at risk of developing Type 2 diabetes, a chronic health condition. It provides personalized, one-on-one virtual support.



Health impacts

SCNs and Provincial Programs work collectively to improve health outcomes. Our work spans many areas of health and its impact can include short- or long-term impacts for individuals, populations and public health as well as disease and injury prevention and patient experience.

The CAHS impact framework does not define health impact measures that are common across all areas of health. Indicators typically relate to:

- **health status** (e.g., mortality, morbidity, mobility, disability, pain, recovery rate, advanced illness, disease or injury incidence or progression)
- **modifiable risk factors** (e.g., exercise, alcohol or tobacco use, access to nutritional foods)
- **other measureable outcomes** (e.g., reduced complications, emergency visits, hospital readmissions)
- **patient-reported outcome measures** (e.g., stress, confidence or satisfaction, quality of life)

These type of outcome measures are rigorously evaluated in randomized controlled trials (RCTs). In dynamic clinical settings, it becomes more difficult to attribute impact and causation, and health systems are sometimes limited in their ability to track long-term outcomes outside of research studies. Provincial adoption of Connect Care is expected to help reduce data access and integration barriers and support future study.

Highlights from 2021-2022

Health status

Reduced mortality	Bone & Joint Health	
	✓	Reduced inpatient mortality (26% decrease since Acute Hip Fracture Pathway and fragility and stability program began)
	✓	Improved mobility following hip surgery, with 84% of hip surgery patients mobilized on Day 1 post-operation (2021)
	✓	Fracture prevention initiatives, including Catch-a-Break and the Fracture Liaison Service, are helping reduce frailty and further injury by reducing the risk of secondary fracture (by 11% in the first year and 50% in the second year)
Improved mobility	✓	Evaluation of the GLA:D program in Canada (>1,500 participants) shows positive outcomes regarding pain and mobility. Data indicates reduced pain intensity, decreased use of pain medications, increased walking speed and reduced need for a walking aid. Read publication (HQ 2021)
Decreased pain	Surgery	
Fewer complications and readmissions	✓	Reduced mortality, post-operative complications and hospital readmissions through ERAS pathway implementation and management of surgical site infections (SSIs)
		Read publication (JAMA 2021)

Improved
outcomes,
reduced
disability

Cardiovascular Health & Stroke

- ✓ An international RCT led by researchers at the University of Calgary, Hotchkiss Brain Institute and AHS brought together 48 hospitals around the world to evaluate a new drug (nerinetide). Results showed that nerinetide may delay cell death and disability caused by ischemic stroke when combined with endovascular therapy (EVT), leading to a significant improvement in outcomes following stroke in patients who received this neuroprotective agent.
- ✓ This trial, called ESCAPE-NA1, comes five years after the groundbreaking ESCAPE trial, which demonstrated the benefits of EVT, a minimally invasive surgical procedure for removing clots. [Read publication](#) (The Lancet 2021) | [Learn more](#) (video)

Evaluations and/or RCTs are also underway for many other quality improvements and practice changes, including screening and diagnostic pathways, virtual care initiatives, and rehabilitation and management of Long COVID.

Modifiable risk factors, complications and readmissions

Early
screening,
reduced risk
of adverse
outcomes
and chronic
disease

Diabetes Screening and Prevention

- ✓ Diabetes Eye Care and Foot Care Clinical Pathways support early screening and assessment of diabetic retinopathy, impaired circulation, infection and foot ulcers, reducing the risk of diabetes-related vision loss and lower limb amputations for at-risk Albertans
- ✓ Improved glycemic management in hospital reduces the risk of complications including post-operative infections, pneumonia, diabetic ketoacidosis and delayed wound healing.
- ✓ Pilot study currently underway will assess whether a Virtual Diabetes Prevention Program (vDPP) can reduce the risk of developing Type 2 diabetes through exercise, nutrition coaching and weight management.

Improved
screening for
financial
strain

Reducing the Impact of Financial Strain (RIFS)

- ✓ The RIFS project is a ground-breaking, multi-sectoral collaboration between AHS, the Alberta Medical Association, Primary Care Networks (PCNs), community partners, patient advisors, and social agencies who came together to test ways financial strain could be addressed.
- ✓ The work considers factors that affect a patients' health beyond what healthcare providers may see in an exam room and focuses on supporting the whole person. Screening for financial strain can help patients who are struggling to make ends meet and connect them with community supports outside of primary care can positively impact their health and wellness. [Learn more](#)

Improved
patient safety

Critical Care Optimization of Albumin Ordering (RATIONALE)

- ✓ Since implementing changes in albumin ordering, Alberta has seen a 39% decrease in unnecessary albumin usage
- ✓ To date, a 32.7% relative reduction in inappropriate albumin use has been realized. This improves patient safety, with 649 patients avoiding receiving unnecessary blood product.

<p>Access to the right care, care in the community</p>	<p>Multidisciplinary Long COVID Supports</p> <ul style="list-style-type: none"> ✓ Provincial Adult Long COVID Pathway, Rehabilitation Advice Line (RAL) and Inter-Professional Outpatient Program (IPOP) Clinics are supporting appropriate triage, referral and delivery of primary care, home care and community rehabilitation services in all Zones. These services enable patients to readily access the right care, by the right provider at the right time. ✓ In an evaluation of the RAL, callers indicated that three months following their call interaction, pain from acute and chronic conditions was still their primary concern; but, they felt that they could manage their condition without medication use.
<p>Patient-reported outcome measures</p>	
<p>Involvement in infants' care, positive experience and improved confidence</p>	<p>Alberta FICare</p> <ul style="list-style-type: none"> ✓ Qualitative study exploring the experiences of mothers of moderate and late preterm infants in the context of two approaches to NICU care (Alberta FICare and standard care). The study revealed that mothers face many physical and emotional challenges in their recovery from preterm birth, encounter barriers while adapting to the NICU. ✓ Mothers in the Alberta FICare group reported feeling more involved in the care of their infant, and supported and encouraged to participate in bedside rounds actively and consistently. This had a positive influence on mothers' experience of parenting their infant in the NICU. They also "described a strong relationship with healthcare providers built on reciprocal trust. This trust empowered mothers to feel part of their infant's care team and built confidence in providing care on the journey to home. Mothers in the standard care group did not describe the same feelings of support." <p>Read publication</p>
<p>Understanding PROMs</p>	<p>Care of Hemodialysis Patients (In-Centre, Home & Incremental Dialysis)</p> <ul style="list-style-type: none"> ✓ Kidney failure requiring dialysis is associated with high symptom burden and low health-related quality of life (HRQL). ✓ Study on use of PROMs as a standardized instrument to capture patients' symptom burden, level of functioning, and HRQL revealed challenges and opportunities to support implementation. Read publication
<p>Improved quality of care and patient satisfaction</p>	<p>Improved Endoscopy</p> <ul style="list-style-type: none"> ✓ Endoscopy is an important procedure for diagnosing and treating digestive diseases and gastrointestinal cancers. A partnership between the Digestive Health SCN and Alberta Colorectal Cancer Screening Program focused on targeted areas of improvement using the Canada-Global Rating Scale (C-GRS) to improve endoscopy screenings and standardize care. ✓ Improved quality and reduced unwarranted variation in endoscopy screenings at participating sites. Improved patient experience; more than 80% of patients surveyed reported high satisfaction with care and positive experiences with nursing staff (88%), their endoscopist (85%), and their endoscopy appointment overall (92%).

Economic and social benefits

The SCNs, their Scientific Offices and Provincial Programs work with stakeholders across Alberta to advance health system improvements that improve access, value, clinical utilization, and accountability. Business cases and rigorous evaluation, including return on investment (ROI), are incorporated into decisions at various stages of the AHS Innovation Pipeline. SCNs rigorously evaluate cost savings resulting from practice changes as well as their impact on patient outcomes, experience, quality and health service utilization.

The CAHS impact framework outlines some indicators related to well-being, social benefits and commercialization; however, most are not recommended for institutions, nor are the indicators common across all areas of health. As with health impacts, it is also challenging to control variables in dynamic clinical settings and attribute impact and causation. As such, health systems are somewhat limited in their ability to track and quantify broad economic and social outcomes and link outcomes to research activities.

Given this, SCNs and Provincial Programs report on economic and social benefits using indicators that relate to:

- **access** (e.g., wait times, convenience, coordination of care, access to health services)
- **quality** (e.g., acceptability, accessibility, appropriateness, effectiveness, safety)
- **value and sustainability** (e.g., cost avoidance, savings, efficiency, waste reduction)
- **patient and provider experience** (e.g., satisfaction, flexibility, supports)
- **equity** (e.g., address systemic barriers, support equity, diversity and inclusion, responsive to user needs and expectations)

Highlights from 2021-2022

Over the past fiscal year, SCNs, Provincial Programs and their Scientific Offices have supported several major initiatives for health system improvement in Alberta, including the Alberta Surgical Initiative and Acute Care Bundle Improvement (ACBI) Initiative. These provincial priorities involve clinicians and stakeholders in all zones and are expected to significantly benefit Albertans and improve health service utilization in surgical and acute care settings.

Access, including wait times for diagnosis or treatment

Timely diagnosis and supports in navigating cancer care, testing & referrals

Alberta Cancer Diagnosis (ACD) Program

- ✓ The Cancer SCN is working with patients, families, communities and primary care to provide (i) timely diagnosis and supports in navigating the cancer system; (ii) consistent processes for accessing appropriate tests and referrals, (iii) enhanced communication to expedite and support patients through diagnosis; and (iv) coordinated and best use of resources (e.g., through appropriate testing and avoidance of unnecessary hospitalizations). Engagement and design work for the ACD program is underway. Once testing is complete, an implementation plan will follow.

Early diagnosis reduces risk, intervention, improving quality of life & patient satisfaction

- ✓ Development and implementation of diagnostic pathways for lymphoma, colorectal cancer, head and neck cancer, and other cancers helps expedite diagnostic processes, improving wait times, appropriate use of diagnostic tests, and access to supportive care resources.
- ✓ Accelerated diagnosis and prioritization of cancer cases (e.g., for endoscopy) can reduce the requirement for significant surgical and radiation therapy interventions, which can dramatically impact quality of life, patient and provider satisfaction.

Improving wait times for surgical consultation and care

Alberta Surgical Initiative

- ✓ Plan aims to improve access to surgical care across the province and reduce wait times to within clinically recommended guidelines
- ✓ The Surgery SCN and Bone & Joint SCN have worked closely with ASI leadership, Alberta Health and many others to support implementation of central access and triage (ASI FAST) across many surgical specialties to reduce wait times and drive high-quality, efficient care.

Improved efficiency and coordination

- ✓ The Surgery SCN has also worked closely with Primary Care and Alberta Health to implement the Specialty Access Bundle (SAB), which includes an electronic referral system, centralized intake, care pathways for common surgical conditions, new resources for patients, and access to surgical advice for referring providers.

Best use of resources and appropriate referrals and testing

- ✓ The Bone and Joint Health SCN has supported implementation of a provincial referral pathway for orthopedic surgery and central intake for orthopedic referrals. Its work on MSK Transformation (shoulder assessment and soft tissue knee assessment pathways) and launch of Rapid Access Clinics is expected to improve access and quality of MSK assessments. Evaluations are currently underway.
- ✓ These efforts are expected to improve utilization of specialist time, operating rooms, and quality of surgical referrals, reducing wait times and increasing efficiency, appropriateness, and coordination of care.

Increased access to EVT therapy

Expansion of Treatment Window for Endovascular Therapy

- ✓ Endovascular therapy (EVT) is a highly effective treatment for stroke that dramatically reduces death, disability, and long-term care costs. The CvHS SCN continues to build on positive results of the ESCAPE clinical trial and has developed comprehensive systems to increase timely, equitable and safe access to EVT as the standard of care for all Albertans.

Improved value for all Albertans through significant cost savings

- ✓ Access to EVT in rural communities has increased from approximately 17% of patients receiving EVT in 2016/17 to 22.8% in 2021/22.
- ✓ Preliminary results of a ROI analysis of EVT in Alberta suggest that for **every dollar invested in EVT, the healthcare system saves \$3.6 dollars**.
- ✓ Estimated cost avoidance for Alberta's health system is **\$42,287 per patient annually** as a result of EVT.
- ✓ Work has begun to implement a 24-hour EVT treatment window, an evidence-based shift in practice from the traditional 6-hour treatment window, which will further increase access to EVT for stroke patients in Alberta.

Increased access to domestic violence services and supports

Domestic Abuse Response Team (DART)

- ✓ In 2021, the DART program expanded to 41 AHS/Covenant Health facilities, increasing access in all zones to free, around-the-clock specialized support for Alberta families seeking domestic violence services.
- ✓ Over the past year, DART received 144 referrals and Provincial Addiction and Mental Health plans to expand this program further to additional communities.

Quality, value and sustainability

Optimizing clinical service utilization, workflow, and care transitions

Acute Care Bundle Improvement (ACBI) Initiative

- ✓ The ACBI initiative is a provincially coordinated quality improvement initiative led by operations and supported by SCNs and Provincial Programs. Its goal is to optimize care and improve patient outcomes by applying evidence-based practices that streamline workflows and achieve acute care efficiencies.
- ✓ The work directly supports recommendations in the AHS Performance Review Summary Report (2019) and provides a coordinated, integrated approach that reduces overlap and integrates with Connect Care. Condition-specific order sets for cirrhosis, ERAS, heart failure and COPD are part of this work and integration with Connect Care.
- ✓ Work has begun at Alberta's 14 largest acute care sites to implement and sustain integrated evidence-informed best practices that reflect the local context, needs, and priorities of each site. This work will make it easier for care providers to consistently deliver high quality care to every patient, every time, resulting in shorter hospital stays and a better experience for patients and their families.
- ✓ ACBI also fosters a more collaborative approach between acute care and primary care teams by ensuring patient information flows smoothly between those teams so primary care clinicians can contribute to their patients' care during hospital stays and follow-up is complemented with acute care strategies.

Reducing length of stay and alternate level of care (ALC) days

Improving patient outcomes & experience

Living Well with Cancer: A Community Collaboration

- ✓ There is expected to be 23,424 new cancer cases annually in Alberta by 2023 (CCA 2021). Coupled with increasing survival rates for many cancers, there is a growing need to better support cancer survivors outside of the cancer system. The Canadian Partnership Against Cancer has funded a province-wide collaboration to improve coordination and continuity of care for cancer survivors transitioning from the cancer system back to primary care.
- ✓ The PHCIN is working closely with Cancer Care Alberta, patient advisors and primary care physicians to ensure patients and primary care providers can access the right information at the right time to optimize care, particularly as patients move to the after-treatment and survivorship phase of their cancer journey. This work is currently in the design phase, identifying information needs and developing e-learning content and [digital stories](#) to support cancer survivors, their families, and their primary care providers.

Improving transitions in care and information for patients and primary care providers

Equity

Improving health outcomes & reducing barriers and disparities for First Nations communities.

Supporting strategies and policies that improve health equity

Reducing barriers to care through community engagement and translation of patient resources

Partnerships with First Nations to Understand Barriers and Experiences

- ✓ The Indigenous Wellness Core engages with every Indigenous community in Alberta and is guided by the AHS Indigenous Health Commitments: Roadmap to Wellness drive a vision of achieving health equity for and with Indigenous peoples in Alberta.
- ✓ The Diabetes, Obesity & Nutrition SCN is working with Indigenous communities, the Indigenous Wellness Core and others to improve health outcomes and reduce the incidence and progression of diabetes among First Nations in Alberta (15% compared to 7% of Non-First Nations Albertans). This work involves collaboration to address social determinants of health such as poverty, barriers to access healthcare, nutrition and clean water.
- ✓ The Emergency SCN and its Scientific Office have partnered with First Nations leaders to study experiences of First Nations members in emergency departments and the relationship between First Nation status and triage scores.
- ✓ Similarly, the Critical Care SCN and Indigenous Wellness Core have identified an urgent need to build relationships, close knowledge gaps in ICU care for Indigenous Peoples, and understand Indigenous Peoples' experience with ICUs. In the past fiscal year, the SCN has undertaken a systematic review and meta-analysis of the incidence and outcomes of critical illness in Indigenous Peoples, and a larger program of work is being developed with the goal of establishing an Indigenous Advisory Committee and enhancing culturally safe care.

These partnerships are helping close knowledge gaps and provide evidence to support the needs and lived experience of Indigenous Peoples. Ultimately, this work will help build trust through action and advocacy for resources and improvements to health services, inform strategies and support policies that improve health equity in Alberta.

Creating Health Equity in Cancer Screening (CHECS)

- ✓ The East and Northeast areas of Calgary, Alberta experience higher material deprivation and lower breast, cervical, and colorectal cancer screening rates. The CHECS project aimed to reduce inequities in cancer screening in these areas by engaging with community members and health workers to better understand reasons and motivations for screening for cancer.
- ✓ Results of this engagement informed the co-design of an outreach strategy aimed at increasing cancer screening awareness and led to the development of series of seven animated cancer screening videos. All seven videos were translated and available in six languages: English, Arabic, Punjabi, Urdu, Mandarin, and Tigrinya. Grant funding for this initiative was provided by the Canadian Partnership Against Cancer (CPAC).

Generating new knowledge

Alberta has a diverse and skilled research community that includes academic, clinical and community partners. SCNs, Provincial Programs and their Scientific Offices actively engage patients and families in setting priorities and co-designing solutions and bring a disciplined, rigorous approach that integrates academic effort with the needs of the health system.

Working together, these network stakeholders generate and synthesize new knowledge through pragmatic trials and research studies in priority areas of health. They evaluate outcomes, develop knowledge tools and products, and provide the evidence needed to advance change within the health system. They also share new evidence through publications, reports, databases and online tools for patient and clinical resources.

Highlights from 2021-2022

PEER-REVIEWED PUBLICATIONS

The SCN Scientific Offices continue to share research findings, new knowledge and evidence by co-authoring scholarly articles, evidence reviews and other peer-reviewed literature. More than half of these publications include faculty from the University of Alberta or the University of Calgary as co-authors. For a full list of publications, see the [2021-2022 Publications Summary](#).

In 2021-2022, SCNs contributed to

more than 500

manuscripts and scholarly publications, including:

439

peer-reviewed publications^a

70

submitted or in-press manuscripts^b

291 (66%)

with UC faculty listed as a co-author

186 (42%)

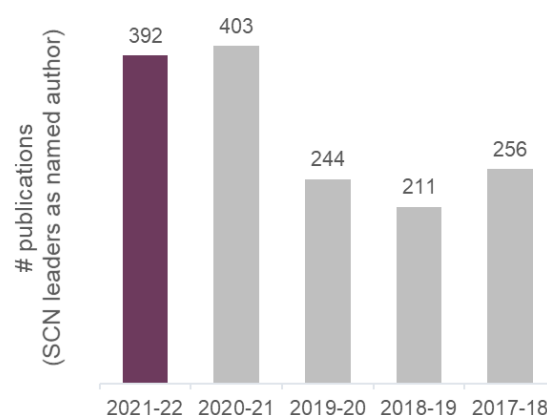
with UA faculty listed as a co-author

Totals include print and e-publications.

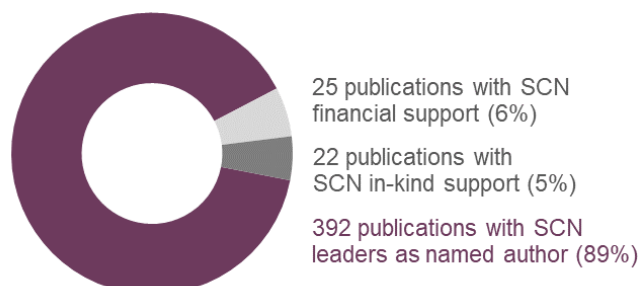
^a Total includes publications with SCN leaders as named authors (see graph), plus publications that received SCN in-kind and/or financial support. Co-authored publications are counted only once in summary metrics,

^b Reflects publication status as of March 30, 2022.

PUBLICATIONS BY YEAR



SCN ROLE



OTHER KNOWLEDGE PRODUCTS AND DELIVERABLES

The SCNs, Provincial Programs and their Scientific Offices have co-designed a number of knowledge resources, products and tools for patients, families and clinicians. Technical products such as clinical databases, training modules and audit and feedback reports are knowledge tools that support health service delivery and local decision making using timely data and information applicable at a zone, site or provider level. Other public-facing information and resources support patient self-management and learning that can improve the health and well-being of Albertans. Examples from the 2021-22 fiscal year are listed below.



Patient or
clinician
resources and
training modules

Cardiovascular Health & Stroke

Developed customizable data reports (Tableau) and quarterly reports for local stroke teams to support quality improvement work.

Digestive Health

Developed and ran 'You Gut This' education series for primary care providers and teams (February to June 2022) with the goal of increasing confidence in managing GI and liver issues in the medical home. The training was awarded the 2022 University of Calgary "Continuing Medical Education & Professional Development (CME&PD) Course Innovation Award."

Maternal Newborn Child & Youth

The Alberta Perinatal Health Program, part of the MNCY SCN, led inter-professional fetal health surveillance trainer workshops, a neonatal resuscitation program instructor trainer course and various maternal newborn practice support initiatives and communication materials.

Medicine (Kidney Health Section)

Provided audit and feedback reports to 150 Alberta nephrologists with individualized data on key performance indicators.

Indigenous Health

Co-designed patient resources with community members regarding the ECHO+ Hepatitis C screening and treatment. These include a pocket-sized booklet that has been translated into five local Indigenous languages.

Population and Public Health

Developed a Change Package and training modules to guide primary care providers in screening and providing brief interventions for modifiable risk factors of cancer and chronic disease (e.g., smoking, alcohol misuse, physical inactivity and insufficient vegetable and fruit intake).



Online resources,
videos, podcasts

Cancer

- Shared updates about the Alberta Cancer Diagnosis (ACD) Initiative and expanded stakeholder engagement opportunities using the [Together4Health](#) web site.
- Shared series of podcasts providing data synthesis of engagement with various subpopulations of Albertans regarding the ACD initiative.

Cardiovascular Health & Stroke

Developed a new [cardiovascular disease risk screening page](#) on MyHealth.Alberta.ca that includes four patient-directed videos

Diabetes, Obesity & Nutrition

Updated user resources for accessing DISER (webinar, flowcharts)

Maternal Newborn Child & Youth

- Launched the [Well on Your Way](#) web site, which provides youth, families and health care providers a single source of comprehensive information, tools and resources to support the transition of youth to adult care.
- Launched the [Alberta FICare](#) website, which supports parents and families of infants requiring neonatal intensive care.

Population and Public Health

- Worked with provincial and community partners to expand the [HealthierTogether](#) web site
- Launched the [Reducing the Impact of Financial Strain](#) web site
- Expanded content on the [ScreeningforLife.ca](#) web site to include seven cancer screening awareness videos and digital stories and to enable online order of a free FIT kit for colorectal cancer screening.

Surgery

Provincial Acute Pain Initiative Podcast and webinar (Balancing Act: Improving pain and opioid prescribing for surgical patients in Alberta).

Other

Significant updates to web sites for the [Alberta Pain Strategy](#) and several SCNs, including expanded content related to SCN Scientific Offices.

DIGITAL TOOLS AND DATA PRODUCTS THAT SUPPORT QUALITY IMPROVEMENT, MONITORING AND EVALUATION

Working with AHS Data Analytics, zone operations and others, the SCNs and Provincial Programs have co-designed reporting tools and data dashboards that support a variety of audit and feedback and quality improvement initiatives as well as ongoing evaluation of system performance, health outcomes, and research. This work supports a learning health system and local decision making using timely, best available evidence at a zone, site or provider level.



Provincial data dashboards

In 2021-2022, SCNs worked with key stakeholders to develop:

- a Provincial Endoscopy Procedure Dashboard (Tableau)
- a public dashboard showing [diabetes prevalence](#) and demographic distribution (Tableau, DISER)
- a provincial dashboard for Dialyzing Wisely (work will continue in 2022-2023)

Work is also underway to develop a provincial dashboard to support audit and feedback for albumin ordering (part of RATIONALE project to optimize use of albumin blood products).



Ongoing support for Connect Care implementation

Work is also underway to update current dashboards and map data elements to support ongoing outcomes measurement and the transition to Connect Care. SCNs and Provincial Programs have been working alongside the Connect Care team to:

- merge and update the current ICU delirium dashboard to be Connect Care ready, ensuring ICU data remains available post-implementation
- support file transfer of EPIC labour and delivery data elements to Connect Care
- map ERAS data elements and completing a data manual that will support a provincial Surgical Outcomes Measurement System that provides pathway-specific reports and automates ERAS metrics
- support IT integration between Connect Care and other provincial clinical information systems (e.g., CII/CPAR, eDelivery) that together comprise the complete patient record.

This work will enhance information continuity for providers and patients of the health care system.



Formal & ad hoc data requests

The SCN Scientific Offices provide data and evidence in response to specific requests from zone operations, government and the research community. For example:

- To monitor the impact of the pandemic and recovery to pre-pandemic activity, the Digestive Health SCN worked with operational leaders and 50 endoscopy sites across Alberta to track weekly endoscopy activity and endoscopy room capacity.
- The Emergency SCN worked with the Alberta First Nations Information Governance Centre to provide data on care of First Nations patients in Alberta emergency departments. This data was presented to First Nations organizations, government and operational leaders to address health equity. Separately, the Emergency SCN provided data on access block in acute care facilities to senior health system leaders to address capacity pressures.
- The MNCY SCN and the Alberta Perinatal Health Program (APHP) regularly provide data from Perilink to Primary Care Networks to support quality improvement (e.g., physician-specific data on conditions of interest for pregnant individuals, deliveries and births). Examples include annual birth statistics, and transfer of care between family physicians, midwives, and obstetricians over time.

Additional knowledge products are listed in the [Other Outcomes & Deliverables Summary](#).

Building capacity for future innovation

In addition to serving as principal investigators and co-investigators, the Scientific Offices support health research and innovation through collaborations, letters of support, data sharing agreements, access to personnel and funding, training and outreach activities, and by brokering support with operational areas, provincial programs, and local service units. The provincial reach of the networks facilitates coordination and enables access to data, patients and diverse clinical settings within Alberta's provincially integrated health system.

SCNs and the wider research community benefit from knowledge generated through national research networks and initiatives others are leading, and they provide reciprocal value through leadership, research and funding opportunities for Alberta researchers in health sciences as well as business, operational management, computing and data science, and biomedical engineering. Together, they amplify the impact of health research in Alberta.

Highlights from 2021-2022

RESEARCH ENDORSEMENT, FACILITATION AND SUPPORT

Supporting the work of Alberta's research community creates opportunities to align our efforts, advance knowledge and apply it in a health setting. The scope and type of SCN involvement varies and may include:

- endorsing projects and funding proposals through letters of support (e.g., CIHR, PRIHS)
- providing opportunities for patient and clinician engagement
- facilitating access to clinical environments for pragmatic clinical trials
- collaborating as co-investigators
- brokering access to health system data, clinical participation and interdisciplinary learning
- providing other funding or in-kind support

Over the past year, SCNs provided 195 letters of support to Alberta researchers and have benefited from the expertise and involvement of more than 1,700 research network members.

Examples of specific research collaborations are highlighted in the [Patient Engagement & Research Collaboration Summary](#).

195

letters of support to Alberta researchers in support of funding proposals*



A 16% increase over 2020-2021

1,775

active research network partners

Note:

*Letters of support are counted separately from other funding applications.



LEARNING AND TRAINING OPPORTUNITIES

SCN leaders supervise students as part of formal academic programs and mentor and engage trainees and early-career researchers on projects in priority areas of health. They also provide funding through seed grants, studentships as well as opportunities for patient-led research and other research collaborations with academic partners, research institutes, communities and organizations.

In FY 2021-2022

91

trainees supervised or mentored
by SCN leaders

36

funded through seed grants and
research funding

32

research personnel collaborated with
SCNs in priority areas

TRAINEES SUPPORTED



Satchel Krawchuk
University of Calgary

The ESCN summer studentship built the foundation for my research career, as it was the first dedicated research experience I had outside of an academic setting. The studentship provided me with the chance to apply many of the skills I have developed during my undergraduate studies in a real-world setting, in an attempt to solve problems faced in the field of emergency medicine.

I was able to work alongside numerous amazing colleagues who provided mentorship and have created a positive impact on the way I perceive health-based research. I now understand how research is an integral part of healthcare and how important it is to re-evaluate public health policies continually."

Recipient of ESCN studentship
Supervised by Dr. Eddy Lang (SD, ESCN)

For information on specific projects, including outcomes, see the [Training & Capacity-Building Summary](#). Details on funding support provided by the SCNs and Provincial Programs are included with the [Financial Highlights](#).

PATIENT-LED RESEARCH AND PACER TRAINING

The SCNs, Provincial Programs and their Scientific Offices support patient-led research and Patient and Community Engagement Researchers (PaCERs). The PaCER program is a partnership between

- Alberta Health Services (through the SCNs)
- The Alberta Strategy for Patient-Oriented Research Support Unit (AbSPORU), Patient Engagement Team
- The University of Calgary, Continuing Education Program

Individuals enrolled in the PaCER program have lived experience in healthcare as patients, caregivers or family members. It focuses on transforming the role of patients in health care and health culture through engagement and active involvement in health research that addresses patient-identified needs and priorities.

The certificate program involves three courses in which students learn basic skills, methods and processes of patient-led qualitative research. During their training, students have the opportunity to work collaboratively as part of a research team, and upon graduation, they have opportunities to contribute to patient engagement research, producing evidence that can inform current practice, policy decisions and further research. For details, see pacerinnovates.ca.

In 2021-2022, SCNs supported six PaCER cohorts and eight patient-led or co-led research projects. Studies focused on quality improvements, patient and family experiences and patient-reported outcome measures in the areas of addiction and mental health, digestive health, medicine, neuroscience, rehabilitation and vision, and Indigenous health.



43

patients sponsored to receive PaCER training in 2021-2022

5 + 1

PaCER cohorts, plus one all-Indigenous cohort supported by the Indigenous Wellness Core and Honoring Life, an Indigenous youth mental wellness program [Learn more](#)

8

patient-led or co-led research projects

Gary Semeniuk, a Patient and Family Advisor with the Cardiovascular Health & Stroke SCN (CvHS SCN) is currently enrolled in the PaCER program. His research focuses on understanding what supports matter most to Albertans returning to their homes in rural, remote, or isolated communities after being hospitalized. Like all PaCER projects, this work is patient-led, peer-to-peer qualitative research.



Gary shares his thoughts on what he's learned through the program, what has surprised him most, and how his experiences as a patient have shaped his interest in health research.

On teamwork:

A significant amount of teamwork is involved in this program. To be successful, it is critical that all members of the cohort have common aspirations. I am fortunate to be a part of a truly remarkable cohort group that possesses a high level of personal trust and capacity.

What has surprised you about conducting research?

My biggest surprise was the procedural and mechanical similarities between corporate projects and health research. For instance, if a health research or corporate project is not clearly defined, the project will be doomed to fail.... Numerous iterations ensure work is clearly defined and risks have been identified and mitigated before getting the “green light”. Common sense and good judgement are beacons to success.

How do you navigate being a patient to someone who now conducts health research?

Having lived experience as a patient and a caregiver in six different hospitals in Alberta, I connect with every emotion, sound, sight and smell patients experience while being treated in hospital. Patients only want to return to the quality of life they had before their hospital stay. I have a genuine understanding of their journey. The patient's voice provides valuable information for researchers and decision makers.

In your conversations with patients and families about their experiences returning home after a hospitalization, was there a common theme that surprised you?

I am the first generation in my family to be raised “off of the farm” so as I listen to patients' concerns, I am riveted. Their concerns are very close to my heart. Two loud messages were consistent: There were many examples of incongruences between the advice patients received before leaving hospital and the advice of their ‘hometown’ doctors. I would like to understand the root cause of these incongruences as they contribute to delays in letting patients heal and get back to their “normal”. The other is the sheer time and distance between the patient and meaningful care [when they live in rural, remote, or isolated communities].

How does your journey and experience influence you and your interest in research?

I am grateful for every sunrise I see. I am grateful for every personal encounter and daily experience I have, whether good or bad. I lived a very exciting and fulfilling life until my MI [Myocardial infarction, the technical term for a heart attack]. I still live an exciting and fulfilling life, without qualification. The experience taught me that I am not special. I am not immune or exempt from heart disease because I chose to ignore the risks. I felt a need to pay it forward for hard-working Albertans who may suffer the same fate as myself. I want them to have outcomes that will lead them back to their families and a happy, productive and fulfilling future.

KNOWLEDGE EXCHANGE AND OUTREACH ACTIVITIES

SCN Scientific Offices engage the research, patient and clinical community through a variety of workshops and outreach activities on a local, provincial and national level. Scientific directors, assistant scientific directors and trainees participate in research and quality improvement forums, conferences and related knowledge-sharing and capacity-building activities. These efforts build awareness, expand participants' capabilities, and create opportunities for further research collaboration and alignment.

In 2021-2022, these activities included virtual and in-person events.

395

presentations, workshops and events

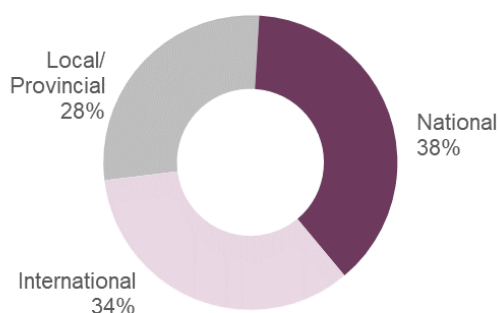
129

scholarly presentations to local, national or international audiences

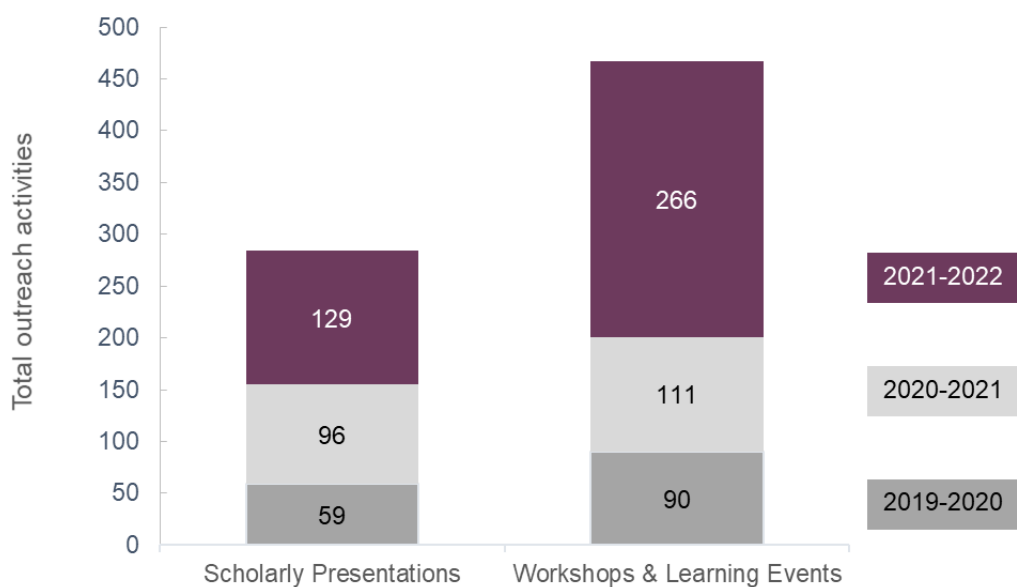
266

additional learning & outreach events

SCHOLARLY PRESENTATIONS



YEAR-OVER-YEAR COMPARISON



For further details, see the [Outreach Summary](#).

Financial highlights

The SCN Scientific Offices access grant funding from a variety of sources, bringing in new dollars that directly support health innovation, research and outcomes improvement in Alberta. Last year, 66% of the funds awarded were from sources outside the province.

The Scientific Offices also administer and award grants, providing funds that support local research and capacity building through seed grants, studentships and research collaborations with Alberta's universities and with health organizations, leading research institutes and clinician researchers.

All of these funding opportunities support the AHS Innovation Pipeline, helping to evaluate good ideas, adapt them for a local context, and advance successful innovations from a pilot stage to provincial implementation and sustainment.

Note: The information that follows is specific to grant funding and does not include operational funding Alberta Health Services receives from Alberta Health or funding associated with specific products and technologies or commercialization that is administered by the AHS Innovation and Business Intelligence Team.



Highlights from 2021-2022

GRANT FUNDING RECEIVED - FOR HEALTH RESEARCH IN ALBERTA

\$38.9M

2021-2022 total funding
(successful applications)

97

successful applications

70%

of grants awarded in 2021-22
was from sources outside Alberta

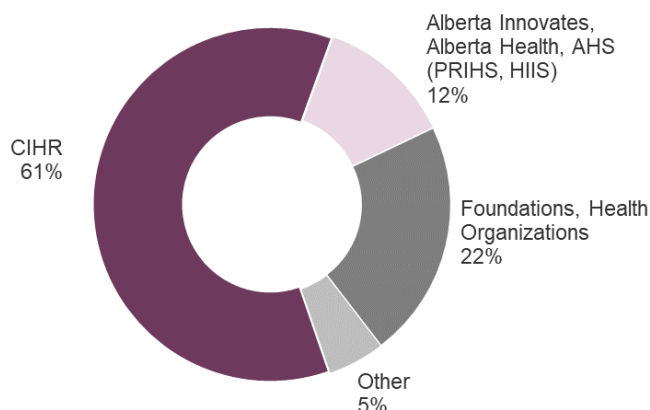
TOTAL FUNDING BY SOURCE



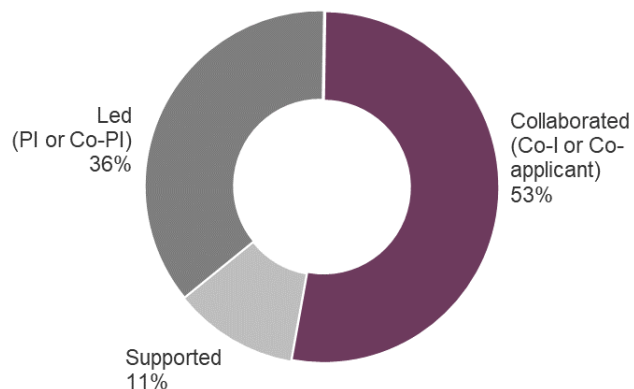
NOTES:

These metrics include work SCNs are leading, collaborating on, or supporting. They do not include funding for work done part of members' other roles, responsibilities or affiliations, nor do they include the 39 additional competitions pending as of March 31, 2022. All grants that are part of multi-SCN collaborations are counted only once.

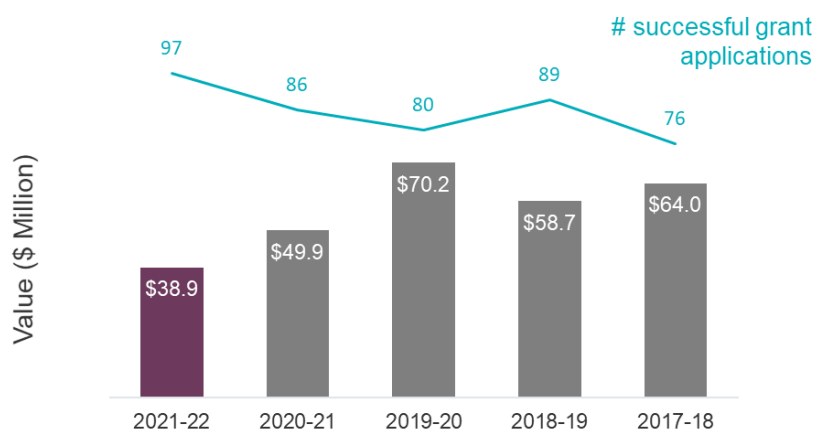
GRANTS BY SOURCE



SCN ROLE



GRANT FUNDING, YEAR OVER YEAR



66%

Success rate for grant applications (2021-2022)

Grant application success rate has been in the

64% to 69%

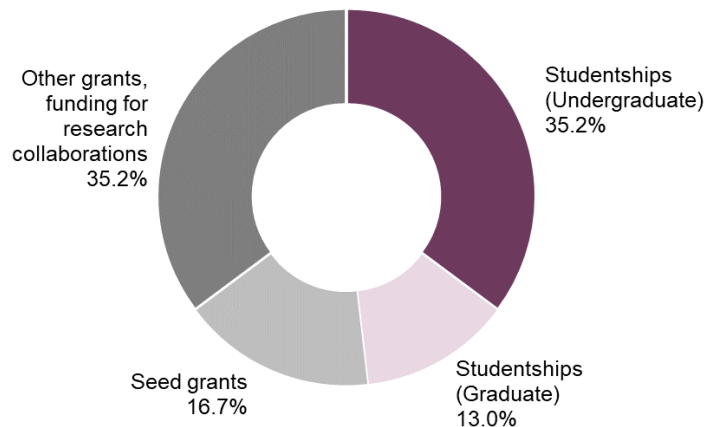
Range over the past four years

Further detail on these grants, including specific areas of research and principal investigators, are provided in the [Grant Summary](#).

GRANT FUNDING DISBURSED BY THE SCIENTIFIC OFFICES



GRANTS AWARDED, BY TYPE

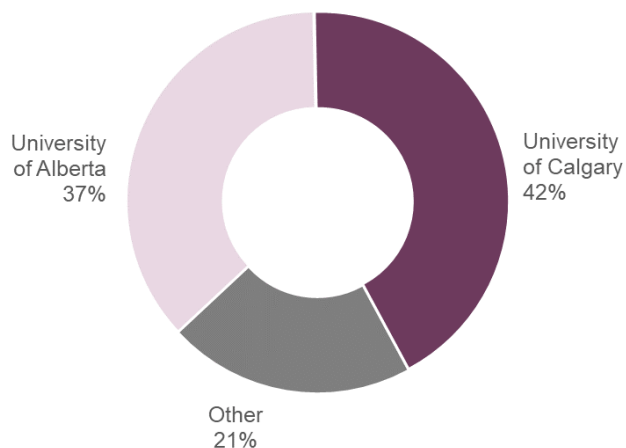


\$828,361

in grants awarded in FY 2021-2022 to support local research and capacity building

↑ A 20% increase over 2020-2021

FUNDING BY RECIPIENT AFFILIATION



35

studentships & seed grants awarded to support health research at Alberta's major research universities

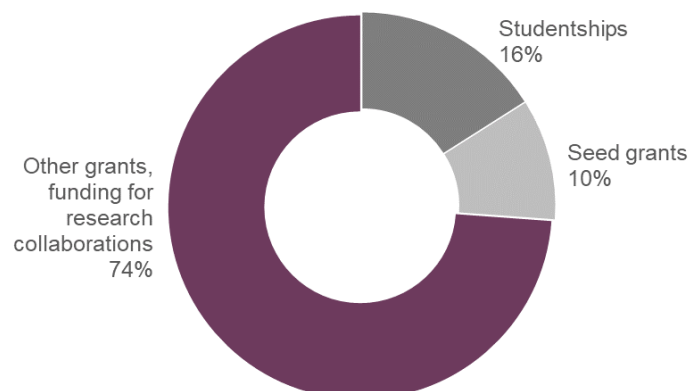
↓ A 10% decrease from 2020-2021

20

additional grants awarded for research collaborations in priority areas

↑ A 26% increase over 2020-2021

FUNDING TYPE, BY VALUE



Studentships

	<i>N</i>	<i>Funds Awarded</i>
University of Alberta ¹	13	\$58,357
University of Calgary ²	13	\$75,036
University of Lethbridge	0	--
Mount Royal University	0	--
Other	0	--
TOTAL	26	\$133,393

Seed Grants

	<i>N</i>	<i>Funds Awarded</i>
	7	\$69,495
	2	\$10,000
	0	—
	0	—
	0	—
TOTAL	9	\$79,495

Other Grants

	<i>N</i>	<i>Funds Awarded</i>
	6	\$175,588
	10	\$266,375
	0	—
	0	—
	4	\$173,510
TOTAL	20	\$615,473

Notes:









¹ Includes students in the Faculty of Medicine & Dentistry; Medicine; Public Health; Surgery; Faculty of Nursing; Rehabilitation Medicine; Agriculture, Life and Environmental Sciences; Pharmacy & Pharmaceutical Sciences

² Includes students in the Cumming School of Medicine; Community Health Sciences; Public Health; Health Informatics; Critical Care; Surgery; and the Faculty of Nursing

For examples on work these funds have supported, including outcomes, see the [Training & Capacity-Building Summary](#).

Linked materials

Additional detail for the 2021-2022 fiscal year is provided in supplemental files, linked from this report:

 Key Contacts - SCNs and Provincial Programs	 Faculty Involvement by University	 Patient Engagement & Research Collaboration
 Publications Summary	 Other Outcomes / Deliverables	 Grants Summary
 Outreach Summary	 Training & Capacity Building	

- [Appendix A – Methods and metrics](#)
- [Appendix B – The CAHS Framework and AHS Innovation Pipeline](#)
- [Appendix C – Role of the Scientific Offices](#)
- [Appendix D -- 2021-2022 Highlights by Area of Health / SCN or Provincial Program](#)

Get involved

Alberta's SCNs, Scientific Offices and Provincial Programs invite ongoing collaboration, input and participation from individuals who are passionate about improving health and care. Visit our [web site](#) to learn more about opportunities to get involved, or contact us at StrategicClinicalNetworks@ahs.ca.

Appendix A Methods and metrics

Measuring our performance

The SCN Scientific Offices and Provincial Programs use a research performance measurement framework to assess the impact of their work. There are many approaches for measuring research outcomes, their benefits and direct and indirect impacts, and all methods have strengths and limitations.

SCNs and Provincial Programs have chosen to use a framework that builds on the Canadian Academy of Health Sciences (CAHS) impact framework. The CAHS framework is widely used by government, policymakers, funding agencies, academic and research institutions across Canada. It uses a 'systems approach' to assess how research activities inform decision making, advance in understanding, and contribute to changes in health, economic and social prosperity. The [CAHS framework](#) considers health research impacts in five categories: 1) advancing knowledge, 2) capacity-building, 3) informing decision-making, 4) health impacts, and 5) broad economic and social impacts.

This report summarizes the contributions of SCNs and Provincial Programs in each of these domains. Where possible, common indicators are used to ensure consistent measurement across all networks, programs and time. Health impacts are characterized for the appropriate population and scale (local, provincial) and vary depending on the nature of the project and population focus. Impacts on health policy, and broad economic and social benefits can be challenging to quantify and attribute specific contributions. The report also highlights collective achievements and describes the broad impact of this work.

Reporting period

Data in this report is for the 2021-2022 AHS fiscal year (April 1, 2020 to March 31, 2021).

NOTE: Metrics reflect the status of grants, publications, and funding awards at the end of the fiscal year. Those listed as 'pending' or 'submitted' as of March 31, 2022 are not counted in summary metrics (even if their status is now known) to avoid double-counting and ensure consistent year-to-year reporting. Grants, awards, publications and other achievements since March 2021 will be captured in next year's report.

Data sources

Information provided in this report was compiled by the SCN Assistant Scientific Directors, with support from other SCN leaders, staff and the pan-SCN team. All submissions were reviewed for accuracy and completeness prior to publication.

Data used to assess health and broad economic and social impacts was obtained from Alberta Health Services administrative databases, provincial costing information, project reports and published studies.

Performance indicators

Performance indicators SCN Scientific Offices use to report on impact are listed in the tables below for each CAHS domain. These indicators include quantitative and qualitative measures that reflect the broad health context SCNs operate within and their contributions on a local and provincial scale.



Advancing knowledge

Indicator	Definition
Grants ^{1,2,3,4,5}	# of grant proposals led, collaborated or supported by the SCN/Provincial Program and submitted to a single competition, and value (CAN\$) of grant award
Letters of support ^{5,6}	# of letters of support provided by SCN/Provincial Program Leaders
Research network members ⁷	# of researchers who self-identify as members of the SCN/Provincial Program research community
Peer-reviewed publications ^{5,8}	# of peer-reviewed publications aligned with SCN/Provincial Programs subject matter, projects, and/or priorities
COVID-related publications ^{5,9}	# of peer-reviewed publications or deliverables developed in support of the AHS COVID-19 Scientific Advisory Group and its mandate

Notes: These indicators include measures of research activity, quality and scholarly output.

1. Includes any grant proposals supported by the SCN/Provincial Program and submitted to a single competition. Funding calls that have a letter of interest (LOI) stage and full application stage are only counted once. If an LOI comes with funding, this is considered a separate grant (i.e., LOI is rated as unsuccessful, pending or successful AND full application is rated as unsuccessful, pending or successful).
2. Includes a final count of grants (successful, unsuccessful, and pending) as well as sub-counts for those in which a) the SD/ASD/Leadership have been named role on the grant application, and b) any grants for which the SD/ASD/Leadership is not a named team member but has provided support (funds or in-kind support such as data liberation, content expertise, methods support). Letters of Support (LOS) are not included as in-kind support. "Led" refers to grants in which SCN leaders are the primary investigator (PI) or Co-PI, and "Collaborated" refers to grants in which SCN leaders are named as a co-investigator (Co-I) or co-applicant.
3. Grant amounts are reported in Canadian dollars. The full value of the grant is included in the summary metrics in the year the grant is awarded. Where grant allocations are dispersed by province, only the Alberta amount is counted in summary metrics. In the case of multi-SCN collaborations, shared grants are listed under each SCN but counted only once in summary metrics.
4. Grant applications submitted are listed as 'pending' if the outcome was not known by the end of the fiscal year. They are not counted in the summary metrics (even if their status is now known) to avoid double-counting and ensure consistent year-to-year reporting.
5. SCN/Provincial Program Leadership includes the Scientific Director and Assistant Scientific Director(s) well as Senior Medical Director, Senior Program Director or Senior Program Officer, Executive Director, Manager and Research Scientist.
6. Includes letters of support written by any member of the SCN/Provincial Program Leadership team. Letters of support are mutually exclusive from in-kind support in Grant Application Indicators (i.e., letters of support are not counted as in-kind support in Grant indicators).
7. Research network members can include researchers on working groups, SCN projects, or part of the core committee; co-investigators of external competitions; and those who self-identify as members of the SCN research community. Knowledge users on research grants are not included as the focus is on researchers and not the broader network community. Unless researchers request to be removed from the database, they continue to be counted as members of the research network even if the grant, project or working group is over.
8. Publication status (published, in-press/accepted, and submitted) is assigned based on status at the end of the fiscal year. Counts includes totals as well as sub-counts of publications a) with the SD, ASD, or Leadership on the author line, b) those generated with financial support from SCN (e.g. seed grants, commissioned work, workshops), and c) with significant in-kind contributions from SCN (e.g. data pull, data analysis).
9. In FY 2020-2021, a separate count of COVID-related deliverables was provided. For FY 2021-2022, a summary of [Other Outcomes & Deliverables](#) is provided, which identifies research outputs, knowledge products and deliverables not counted as peer-reviewed publications. This includes provincial frameworks, grey literature, evidence reviews, taskforce reports, clinical practice guidelines, honors and awards, and training, data and decisions tools that supported the work of AHS Executive, the Scientific Advisory Group, and policy makers.

Building capacity	
Indicator	Definition
Trainees – supervised / mentored ^{1,2}	# of trainees supervised or mentored by SCN/Provincial Program Leader(s) and related to an SCN/Provincial Program priority project. Supervision refers to trainees that are supervised as part of a formal academic program. Mentoring refers to trainees that are <u>not supervised</u> as part of a formal academic program.
Trainees – funded ^{1,2}	# of trainees funded by the SCN/Provincial Program but <u>not supervised</u> by SCN/Provincial Program Leadership (e.g., Studentship competitions, SD budget, PRIHS, other SCN-related funding mechanisms) and related to an SCN/Provincial Program priority project.
Research personnel – supervised and funded	# of research personnel funded by the SCN/Provincial Program, by grant dollars or other SCN funding mechanisms <u>and</u> supervised by the SD, ASD or SCN/Provincial Program Leadership
Additional funding	
<ul style="list-style-type: none"> • Summer studentships³ 	# summer studentships awarded (not launched) and total dollar amount in fiscal year
<ul style="list-style-type: none"> • Seed grants³ 	# of seed grants awarded (not launched) and total dollar amount in fiscal year
<ul style="list-style-type: none"> • Other grants³ 	# of other grants (such as commissioned research) awarded (not launched) and total dollar amount in fiscal year
Patient-led research and PaCER training	# of patient volunteers sponsored by SCNs/Provincial Programs in fiscal year to receive PaCER training and # of SCN-supported patient-led or co-led research projects
Outreach activities ⁴	<p># of scholarly presentations (lectures, abstracts, posters, conference panelist and moderator) to local, national or international audiences in fiscal year by SCN/Provincial Program Leadership.</p> <p># of presentations, workshops, research or quality improvement forums, webinars, learning collaboratives, grand rounds, and similar learning events by SCN/Provincial Program Leaders that support knowledge-sharing and capacity-building.</p>
<p>Notes:</p> <ol style="list-style-type: none"> 1. SCN/Provincial Program Leadership includes the Scientific Director and Assistant Scientific Director(s) well as Senior Medical Director, Senior Program Director or Senior Program Officer, Executive Director, Manager and Research Scientist. 2. Includes total count as well as a sub-count for trainees at each level: a) Undergraduate – Summer Student Project Only, b) Undergraduate, c) Master's, d) PhD, e) Resident Research Project, f) Post-Doctoral (PhD) Fellowship, g) Post-Doctoral (MD) Fellowship, and h) Clinicians. 3. Includes total count as well as a sub-count (# and dollars) by university affiliation to which funds were awarded (University of Alberta, University of Calgary, University of Lethbridge, Mount Royal University, Other). 4. Includes sub-count of scholarly presentations and total count of other outreach activities (workshops, meetings and learning events). Totals include both in-person and virtual events. Regular meetings (e.g., core committees), social media posts, interviews/appearances are excluded from total count. 	

Informing decisions

Indicator ¹	Definition
Health policy contributions	List of significant contributions to health policy harmonization, practice standardization, access and quality improvement, with release and/or implementation on a provincial scale.
Provincial initiatives	Includes SCN- and Provincial Program-led activities, collaboration with other health, community and industry partners, and support for other organizations on work that supports clinical operations, pathway development, administration, and decision making on a provincial scale. The work involves mobilizing research evidence and translating knowledge into action to improve quality of care (clinical effectiveness, safety, acceptability, access, appropriateness, and efficiency), equity, health outcomes, and patient/provider experiences.

Note:

1. No specific indicators defined but significant contributions are highlighted over past fiscal year. The report considers how SCN and Provincial Program contributions are helping advance care (prevention, diagnosis, treatment), facilitate knowledge transfer and evidence-informed change, and inform health policy, operational and administrative decisions on a provincial scale.

Work relates to all areas of health-related decision making (e.g., health care, public health, prevention, health-related education/training, etc.). Because decision making inputs, roles of various contributors, and the way research informs decisions are difficult to measure, impacts are described qualitatively. The report highlights major milestones and collective achievements over the past fiscal year.

Health impacts

Indicator ¹	Definition
Health outcome measures	Include impacts on patient and population health, wellness, disease and injury prevention, patient experience. These may include short-term or long-term impacts on individuals or patient populations.

Note:

1. No specific indicators defined as outcome measures are network or project-dependent. Indicators may include changes in health status (mortality, morbidity, mobility, disability, well-being) and other outcomes (e.g., reduced complications, emergency department visits or hospital readmissions). They may include quantitative or qualitative measures, patient and population-level impacts, patient-reported experiences or outcome measures. Impact is considered for specific patient populations and on a local, community and provincial scale.

Economic and social benefits

Indicator ¹	Definition
Economic and social benefits	Includes impacts on health system capacity, value and sustainability. Measures include return on investment, cost savings, cost avoidance, improvements in health system utilization, access and patient, provider and community supports.

Note:

1. No specific indicators defined but significant contributions are highlighted over past fiscal year. Benefits can be broad and are considered on a patient-, system and provincial level (e.g., LOS, wait times, care in the community, health equity). The report considers monetary and non-monetary benefits.

Appendix B The CAHS Framework and AHS Innovation Pipeline

The five domains of the CAHS Framework reflect a ‘system view’ of health research and innovation. Activities in one domain fuel and impact the next by providing knowledge resources, capacity, investment and momentum to advance health system improvements that benefit Albertans, keep pace with emerging evidence and support AHS’ 10-year vision.



The activities associated with each domain (i.e., systematic inquiry, measurement and evaluation; knowledge generation, management and translation; and implementation and sustainment of practice changes) are also reflected in the AHS Innovation Pipeline, shown below.

The AHS Innovation Pipeline is fueled by priority health system challenges and provides a progressive, integrated and system-level approach to health research and innovation. The model identifies the type of evidence needed to inform value-based decision making. Among these are evidence of improved outcomes, quality, and health equity; health and operational impacts; and economic value. The model illustrates how clinicians and researchers support this process and provide the inputs needed to drive quality improvement, health system innovation and transformation.



At each stage of the Innovation Pipeline, research and academic partners provide expertise and capacity to support scientific inquiry, knowledge generation, rigorous data collection and analysis. SCNs and Provincial Programs connect researchers with patients and clinical partners and support pragmatic trials within operational settings. Trials are initially piloted on a small scale to test, gather feedback and refine strategies. As work moves along the pipeline, evidence and knowledge is gathered that is directly applicable to Alberta’s health system. If evidence supports provincial implementation (i.e., positive health, economic or social impacts), initiatives are prioritized for further action and operationalization.

Appendix C Role of the Scientific Offices

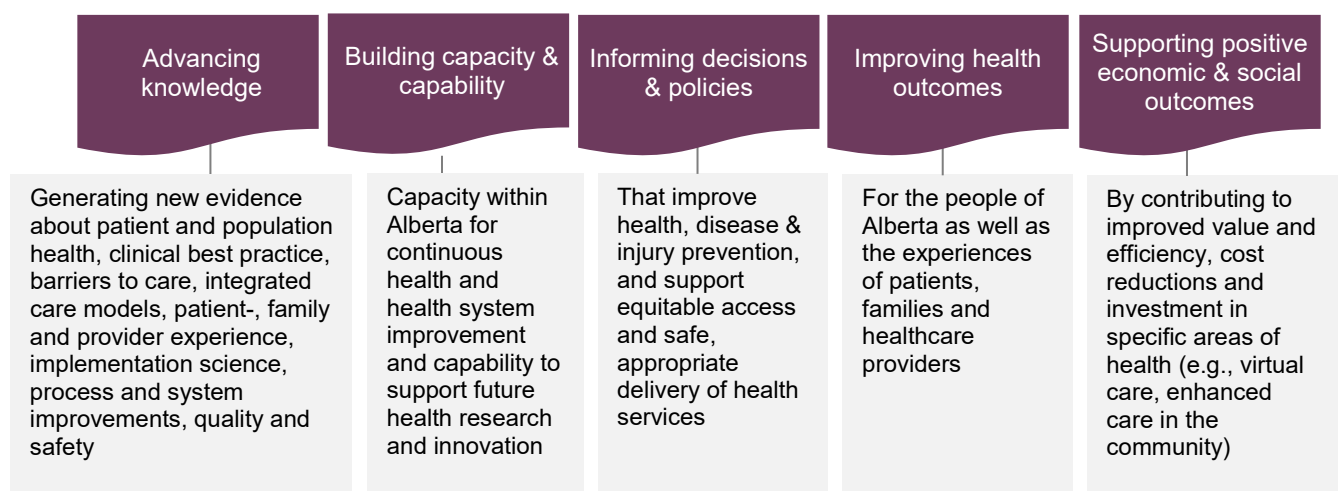
Scientific resources are embedded into Alberta's Strategic Clinical Networks and Provincial Programs, providing essential expertise to improve health and care in our province. These teams rigorously monitor data, evidence and emerging research from Alberta and health systems around the world and bring leading practices, tools, technologies and innovations to our province; evaluate them within a local context; and spread and scale those proven to improve health, quality and value.

The Scientific Offices work with zone operations, researchers, patients, families and community partners, and frontline clinicians to identify areas of high priority, mobilize and translate knowledge into practice, and implement practices that improve health outcomes and health service delivery.

They play an important role in brokering partnerships and collaborations with research institutes, provincial programs, health agencies and organizations and community partners. These partnerships provide reciprocal value through shared access to data, knowledge and evidence, support for grant applications and capacity to mobilize knowledge into action. Likewise, research collaborations with Alberta Innovates, Alberta Health, and Alberta's Strategy for Patient-Oriented Research Support Units (AbSPORU) support provincial spread and scale, health policy harmonization, and evidence-informed decision making.

Scientific teams embedded within integrated Provincial Programs bring these capabilities to newly formed Provincial Knowledge, Evidence and Innovation Divisions as part of clinical centres of excellence and work closely with program directors, health informatics teams and others to support program evaluation, quality improvement, innovation and health system transformation on a provincial scale.

This work benefits the people of Alberta by:



Strategic Clinical Networks

Bone & Joint Health
Cancer
Cardiovascular Health & Stroke
Critical Care
Diabetes, Obesity & Nutrition
Digestive Health
Emergency
Maternal, Newborn, Child & Youth Medicine*
Neurosciences, Rehabilitation & Vision Surgery

**includes Hospital Medicine, Kidney Health and Respiratory Health*

Provincial Programs

Indigenous Wellness Core
Primary Health Care Integration Network
Provincial Addiction & Mental Health
Provincial Population & Public Health
Provincial Seniors Health & Continuing Care

Appendix D 2021-2022 Highlights by Area of Health

Strategic Clinical Networks

- [Bone and Joint Health](#)
- [Cancer](#)
- [Cardiovascular Health and Stroke](#)
- [Critical Care](#)
- [Diabetes, Obesity and Nutrition](#)
- [Digestive Health](#)
- [Emergency](#)
- [Maternal, Newborn, Child and Youth](#)
- [Medicine](#) (includes Hospital Medicine, Kidney Health and Respiratory Health)
- [Neurosciences, Rehabilitation and Vision](#)
- [Surgery](#)

Provincial Programs

- [Indigenous Wellness Core](#)
- [Primary Health Care Integration Network](#)
- [Provincial Addiction and Mental Health](#)
- [Provincial Population and Public Health](#)
- [Provincial Seniors Health and Continuing Care](#)



Note: Summary indicators at the end of each profile link to further detail specific to each team



BONE AND JOINT HEALTH

SENIOR PROVINCIAL DIRECTOR

Jill Robert, BScN, CHE, AHS

SCIENTIFIC DIRECTOR

Dr. David Hart, PhD, University of Calgary, McCaig Institute

EXECUTIVE DIRECTOR

Mel Slomp

KEY PARTNERS

Alberta Bone and Joint Health Institute (ABJHI)

McCaig Institute for Bone and Joint Health

SENIOR MEDICAL DIRECTOR

Dr. Jason Werle, MD, FRCPC, University of Calgary, AHS

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Ania Kania-Richmond, PhD, University of Calgary

SCN MANAGER

Sheila Kelly, RN, BN, MN, ONC(C)

Major initiatives and achievements, 2021-2022

The Bone and Joint Health (BJH) SCN and its Scientific Office continues work with a range of partners, including our Alberta research community, to advance care and improve outcomes for patients living with conditions that impact their bones and joints. The transition to 'post-COVID' operations has resulted in significant activity in two major areas of focus for the BJH SCN: (1) enabling access to effective conservative (non-surgical) assessment and treatment of bone and joint health conditions, and (2) facilitating appropriate and timely access to surgical care, particularly for osteoarthritis and conditions requiring orthopedic specialists.

MSK Transformation (MSK-T) Program

The MSK-T Program, a strategic priority of the BJH SCN, aims to transform the musculoskeletal (MSK) health system in Alberta, leading to improvements in the quality of care delivered to Albertans with MSK conditions. The MSK-T Program consists of several projects, each targeting a specific joint and/or MSK condition. Current projects are focused on shoulder, knee (soft tissue), and low back (spine).

A key component of the MSK-T Program are Rapid Access Clinics (RACs). RACs are specialized clinics that employ multi-disciplinary teams—allied healthcare providers working as non-physician experts (NPE) alongside supervising physicians—that use standardized, evidence-based clinical pathways, provide standardized MSK assessments, and offer standardized and centralized referral mechanisms. This model of care improves access to the right services in the community at the right time.

RACs are being implemented across the province and the BJH SCN is currently undertaking evaluation work, informed by the 'early adopters' of this model, to understand the impact of RACs on MSK care quality.



Alberta Surgical Initiative

The BJH SCN is working closely with the Alberta Surgical Initiative (ASI) to improve timely access to surgical care. Several initiatives are currently underway as part of the MSK Transformation Program, including development of evidence-based clinical pathways for shoulder, knee, and low back conditions, and multidisciplinary specialty clinics (i.e., RACs), which integrate with the ASI FAST centralized intake offices. The BJH SCN senior leadership has been working with ASI leadership, Alberta Health, and various stakeholder groups to establish efficient, pathway-driven care for all Albertans.

Impact Assessment of the BJH SCN Core Committee

The mandate of BJH SCN is to optimize the bone and joint health of Albertans and the care they receive. Its Core Committee is a vital part of the SCN and a key mechanism for engaging the broader community. The BJH SCN Core Committee is a mature entity, operational since 2012.

Over the past year, the BJH SCN undertook an impact assessment of the Core Committee to identify areas of strength and opportunities for improvement in how the Core Committee is engaged, with the goal of optimizing communication, engagement and its influence in achieving strategic priorities. The BJH SCN leadership presented the findings to the Core Committee in early 2022 and has spent time developing strategies on how to enable committee members to not only inform SCN strategic priorities but also better champion SCN initiatives and share information within their communities.

Supporting wellness, disease prevention and digital health innovation

Through the BJH SCN Facilitation Funding opportunity, the Scientific Office supported initial pilot testing for **My Viva®**, an innovative digital health platform that aims to support healthy behaviours and choices related to nutrition and exercise. This tool provides a way to monitor and self-manage one's health and wellness, and encourage healthy, long-term lifestyle habits that can help prevent chronic diseases such as obesity, diabetes and high blood pressure.

Since the initial pilot testing, uptake of My Viva® has continued to spread and is being implemented in primary care clinics and pharmacies across Canada. The support of the BJH SCN and its Scientific Office has helped advance knowledge regarding the effectiveness of this digital health platform and drive change and innovation in our health care system.

Currently, My Viva is working with insurance companies to build a business case for implementing My Viva Plan® into disability management and coverage for individuals with osteoarthritis. It is also partnering with multinational digital health companies to deliver comprehensive digital chronic disease management to Canadians.

My Viva was one of four companies selected to represent Canada at the ITEA Smart Health meeting in the Netherlands (June 2022). This meeting provides a venue to collaborate with international researchers and digital health innovators on using technology to help solve current global healthcare challenges.



"The funding support provided through the BJH SCN Facilitation Funding Opportunity has had a significant impact for My Viva as it has provided clinical validation for utilizing My Viva Plan to support patients in managing their health at home. This is leading to national and international research and business opportunities for My Viva".

Loreen Wells, CEO, MyViva & Revive Wellness Inc

Impact on health and care

The BJH SCN is focused on '**Keeping Albertans Moving**' by promoting good bone and joint health, preventing injuries and conditions from developing, empowering Albertans to self-manage their conditions, and providing the highest quality health care. Our work is positively impacting health and care in Alberta by:

- Improving care pathways and access to care for hip fracture patients.
- Engaging and supporting provincial and system-level efforts (e.g. ASI and MSK-Transformation) to efficiently manage surgical demand and enable appropriate specialist access, to reduce the surgical wait times and improve overall care quality for Albertans with bone and joint conditions.
- Measuring and evaluating key metrics for patients with musculoskeletal (MSK) conditions, including leveraging new data capture mechanisms such as Map2Motion and ConnectCare.
- Creating self-management tools, programs & strategies that support patients and help maximize mobility, mitigate injuries and risk, and minimize loss of function.
- Implementing clinics that enable rapid access to MSK assessment by speciality multidisciplinary teams.

Actions and areas of focus



- Collaborate with patients, health and community partners to transform MSK care and create a person-centred, integrated system of care that optimizes bone and joint health and detailed review mobility and function
- Undertake an BJH SCN impact assessment to better understand the value of the network, relationships and collaborations facilitated through the BJH SCN leadership team and SCN activities. expand
- Support research and implementation of GLA:D Back in Alberta and the low back non-surgical management pathway in primary care.
- Continue pathway development under the MSK transformation strategy, focusing on knee assessment and the shoulder clinical care pathway.

BONE AND JOINT HEALTH

Grants and Publications



19

Peer-reviewed Publications



20

Workshops & Presentations

Outcomes and Impact

Fracture Liaison Service (FLS) expanded to **11 sites** (4/5 zones), supporting osteoporosis treatment and fracture prevention in Alberta



\$1.02M

Research Grants



82

Research Members

Completed a [province-wide review](#) of MSK care provided by Alberta's Primary Care Networks that [identified opportunities to enhance care in the community](#)



CANCER

SENIOR PROVINCIAL DIRECTOR

Angela Estey, MA (Hed), RN
(interim)

Barbara O'Neill, MBA, RN,
COHN(C) (on leave)

SENIOR MEDICAL DIRECTOR

Dr. Douglas Stewart, MD, FRCPC,
University of Calgary

SCIENTIFIC DIRECTOR

Dr. Paula Robson, PhD, CHE,
RNutr(UK), University of Alberta

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Anna Pujadas Botey, PhD, MSc,
University of Alberta

EXECUTIVE DIRECTOR

Tara Bond, MA, CHE (interim)

Angela Estey, MA (Hed), RN
(acting SPD)

SCN MANAGER

Tara Bond, MA, CHE (acting ED)

KEY PARTNERS

Cancer Care Alberta (CCA)

Alberta Cancer Foundation

**Cancer Research Institute of Northern
Alberta (University of Alberta)**

**Arnie Charbonneau Cancer Research
Institute (University of Calgary)**

Major initiatives and achievements, 2021-2022

The Cancer SCN (CSCN) advanced a number of initiatives over the past year that are aligned with our [Transformational Roadmap 2020-2024](#). Our work focuses on improving care across the cancer continuum in Alberta through data, evidence and collaboration.

Future of Cancer Impact in Alberta



The CSCN convened a group of key stakeholders from across Alberta to guide the development of [The Future of Cancer Impact \(FOCI\) Report](#). This report synthesizes existing evidence and describes what is known about cancer in Alberta and what the future likely holds in terms of incidence, prevalence, mortality and survival.

This generous and collaborative group was co-chaired by Dr. Paula Robson (Scientific Director, CSCN) and Dr. Darren Brenner (Associate Professor, Departments of Oncology and Community Health Sciences, University of Calgary) and included Albertans who have experienced cancer first-hand, experts in various cancer-related domains across the continuum, and other key strategic partners. The knowledge contributed by these individuals was further strengthened through the active involvement of many other subject matter experts, contributors, and reviewers.

The FOCI in Alberta Report is a comprehensive exploration of cancer in Alberta, and includes current and projected data, as well as clinical and technical interpretations and recommendations. It identifies gaps and opportunities for knowledge generation and implementation that may inform future priorities for cancer research and cancer care.

With the report now complete, the CSCN will use it as the basis for extensive engagement and consultation with cancer leaders and key strategic partners across Alberta, with the goal of achieving consensus on future cancer-related priorities for the health system.

"Five years ago, I was told I had tongue cancer. As I moved through treatment, I noticed researchers actively evaluating and working to improve the level of care. We all know there is ongoing work to cure cancer, but these researchers were working on every aspect of cancer care and recovery. My interest in their work led me to participating on the FOCI in Alberta Working Group."

I am proud to be one of several cancer patient advisors contributing to this report and to know that communicating my experience is helping to build understanding and ultimately transform cancer care in Alberta."

Adam Brown, Patient advisor, CSCN

Alberta Cancer Diagnosis (ACD) Initiative

Currently, there is no provincial diagnosis program to help coordinate and accelerate cancer diagnosis. Working with patients, families, communities and primary care, the CSCN is co-designing an [Alberta Cancer Diagnosis \(ACD\) Program](#) with a vision to provide (i) timely diagnosis and supports in navigating the cancer system; (ii) consistent processes for accessing appropriate tests and referrals, (iii) enhanced communication to expedite and support patients through diagnosis; and (iv) coordinated and best use of resources (e.g., through appropriate testing and avoidance of unnecessary hospitalizations).

Meaningful engagement with Albertans and diverse stakeholders is a cornerstone of the ACD initiative. Engaging a broad range of clinicians, people, and communities is helping us design a cancer diagnosis program that is inclusive and meets the needs of providers and Albertans in all communities. [Learn more](#) about the engagement process underway, design principles and how to get involved. This work is currently in the design phase. The team is creating the program prototype and will soon test it with stakeholders and start creating a detailed program implementation plan.



"I am proud to be one of several cancer patient and family advisors contributing to the Alberta Cancer Diagnosis Initiative. As one of the working group co-chairs, I am helping shape the work. Sharing my experience is helping to build a program that will transform cancer care in Alberta."

Don Wood, Family Advisor, CSCN

"It has been a pleasure to provide leadership to the Alberta Cancer Diagnosis Program as one of the co-chairs of its Steering Committee. I know having patients and families front and centre, in all aspects of the work - from planning to execution, ensures true co-design."

Lorelee Marin, Family Advisor, CSCN



Alberta Cancer Research Conference 2021 – Zooming Forward: Cancer Research Innovation in our own Backyard

The CSCN partnered with research institutes and leading cancer specialists across the province to deliver the Alberta Cancer Research Conference (October 25-27, 2021), the first provincial cancer conference held in Alberta since 2013. Key partners included Cancer Care Alberta, the Arnie Charbonneau Cancer Institute, Cancer Research Institute of Northern Alberta, Faculty of Medicine and Dentistry of the University of Alberta, the University of Lethbridge, and the Alberta Cancer Foundation.

The conference aimed to increase awareness and advance knowledge of cancer research activity in Alberta. It brought together hundreds of scientists and associates from Alberta and beyond to share successes, strategies and explore opportunities for future collaborations. The CSCN ensured that there was a focus on integration of research and practice, and hosted a session on the value of a Learning Health System in accelerating moving evidence into practice.

Other highlights

Cancer diagnostic pathways

The CSCN is supporting symptomatic patients suspected of having colorectal cancer and lymphoma by creating clinical pathways and supporting their implementation across Alberta.

Provincial pathways support standardized, high quality care for all Albertans. They aim to identify patients with lymphoma and colorectal cancer earlier and facilitate diagnostic investigations, patient referrals, education and supports, improving patient outcomes and experience. [Learn more](#)

To date, the Lymphoma Diagnostic Pathway has been implemented at most major oncology sites in the province. Implementation of the Colorectal Cancer Diagnostic Pathway is underway in Edmonton and Calgary.

Impact on health and care

The Cancer SCN is leading transformation to improve care across the cancer continuum in Alberta by developing strong relationships with patients, families, research institutes, clinicians and operational partners to leverage available resources and expertise. We work together with these stakeholders to:

- Improve care experiences for patients with cancer and their families
- Enhance health outcomes for patients with cancer
- Improve efficiencies in the delivery of cancer care
- Ensure patient voices and experiences remain at the centre of all our efforts

Actions and areas of focus

- Build a community that strategically transforms cancer care
- Translate evidence and data to inform priorities, practice, policy and planning
- Enhance experiences and outcomes for patients and families and improve efficiencies across the health system

CANCER

Grants and Publications



19

Peer-reviewed Publications



42

Workshops & Presentations



\$4.0M

Research Grants



180

Research Members

Outcomes and Impact

The current implementation of cancer diagnostic pathways & future implementation of a provincial diagnosis program will result in:

- ✓ expedited diagnostic processes
- ✓ appropriate use of diagnostic tests
- ✓ improved patient & provider satisfaction
- ✓ improved access to patient education resources & supports



CARDIOVASCULAR HEALTH & STROKE

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SCIENTIFIC DIRECTOR

Dr. Colleen Norris, PhD, MSc, BScN,
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Balraj Mann, MS/MBA, RN

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Campus Alberta Neuroscience

Heart and Stroke Foundation

Hotchkiss Brain Institute [University of
Calgary]

Libin Cardiovascular Institute [University
of Calgary]

Cardiovascular Research Institute (CVRI)
[University of Alberta]

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University of Calgary (assumed full
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Cardiac: Dr. Michelle Graham,
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SCN MANAGER

Agnes Lehman, BScOT, MScHP

Major initiatives and achievements, 2021-2022

The Cardiovascular Health and Stroke (CvHS) SCN continues to advance care for stroke patients and people with cardiovascular conditions. The SCN is actively engaged in strategic partnerships to optimize cardiovascular and stroke care, prioritize research and mobilize knowledge from clinical trials into practice.

The COVID-19 pandemic continued to impact the CvHS SCN this year and many members were called to increase their service in various capacities. Once again, we would like to acknowledge and thank our front-line clinicians, operational leaders, and patient and family partners who actively served and continue to serve the cardiovascular and stroke communities.

Provincial Clinical Pathways Support Unit (CPSU) supports integrated care for HF/COPD

AHS identified heart failure (HF) and chronic obstructive pulmonary disease (COPD) as priority areas for clinical pathway development given the high cost of clinical variation for these populations. The goal for the CPSU is to improve quality of care by reducing clinical variations, reduce hospital stays, hospital readmissions and emergency room visits, and provide timely follow up with primary/community care.



A focused examination of barriers and facilitators to clinical pathway uptake in 2020 revealed multiple, competing, yet similar provincial priorities and practices that created challenges for our operational partners. In response, CvHS led an exercise across 8 SCNs and Provincial Programs to streamline initiatives to support more efficient uptake and implementation. This work, completed over the past year, integrated 8 separate evidence-based, patient-centred provincial initiatives and clinical pathways into a streamlined bundle of quality initiatives (one for Surgery and one for Medicine) called the **Acute Care Bundle Improvement (ACBI) initiative**.

ACBI is an example of a partnership led by operations and supported by Provincial Teams and SCNs to improve patient outcomes and acute care efficiencies while reducing the operational burden of implementing multiple—and sometimes overlapping—projects, programs, and clinical pathways. This work is provincial in scope and directly supports recommendations in the AHS Performance Review Summary Report (2019).

The Heart Failure and COPD Care Paths, which include comprehensive reporting tools, were launched in Connect Care at multiple sites in March and all Connect Care sites in July. Care Path Educational Tools have been developed for prescribers (physicians, nurse practitioners and pharmacists), nurses and allied health. These tools are aligned with new best practice recommendations and guidelines and will be available on MyLearningLink, including accredited modules for physicians.

Improved screening identifies Albertans at risk of cardiovascular disease

Enhanced lipid reporting provides an opportunity for increased screening and treatment of patients at risk of cardiovascular disease (CVD) by providing primary care physicians with a lab-based screening tool. The lab uses an algorithm to calculate the patient's chance of having a heart attack or stroke in the next 10 years and sends a report to the referring physician that explains the patient's risk score and provides up-to-date treatment guidelines.

The CvHS SCN has secured a Health Innovation, Implementation and Spread (HIIS) grant to support the provincial rollout of the new tool, including strategies to support primary care physicians and patients. As part of the strategies to support patients in CVD screening and prevention, the HIIS-grant team have created a new CVD screening webpage on MyHealth.Alberta.ca with four patient directed videos: [What is cardiovascular disease?](#) | [Cardiovascular disease risk screening](#) | [Reducing your cardiovascular disease risk: Statins & lifestyle changes](#) | [Why screen for cardiovascular disease: A patient perspective](#)

Optimizing stroke care and cardiovascular investigations for every Albertan

Endovascular therapy (EVT) is a highly effective treatment for stroke that dramatically reduces death, disability, and long-term care costs. The CvHS SCN continues to build off the positive scientific findings from the ESCAPE clinical trial and has developed comprehensive systems to increase timely, equitable and safe access to EVT for all Albertans. This program of work is known as Endovascular Reperfusion Alberta (ERA).



Through ERA, access to EVT has increased exponentially from a baseline of 206 EVT cases in 2016/17 to 369 procedures in 2021/22. Moreover, access to EVT in rural communities has increased from approximately 17% of patient receiving EVT in 2016/17 to 22.8% in 2021/22. A return on investment (ROI) analysis of EVT in Alberta has been conducted and initial estimates suggest a potential 3:1 ROI for the program (i.e., for every dollar invested in EVT, the healthcare system saves \$3.6 dollars).

Inspired by a request for a succinct quarterly report, the CvHS SCN's EVT and DTN Stroke Leadership developed a one-page summary of key metrics and trends for EVT and lytic therapy that is now circulated to AHS executive and zone leadership across the province. Customizable tableau reports were also developed for local stroke teams that provide a more detailed analysis of these processes and are being used to inform local quality improvement work.

Work has also begun with our partners to implement a 24-hour EVT treatment window, an evidence-based shift in practice from the traditional 6-hour treatment window. We are grateful to our colleagues for their continued interest and engagement with this upcoming change despite pandemic pauses. We anticipate significant progress in the coming year for our stroke communities.

Results from the PER DIEM study, a combined cardiac-stroke effort focusing on rhythm detection (Atrial Fibrillation, AF) after stroke, have been used to inform the Canadian Stroke Best Practices Guidelines pertaining to stroke investigations. The PER DIEM study is now complete, but we continue to evolve this work and look for additional opportunities to support research on remote monitoring and recovery after a stroke.

Actions and areas of focus

- Optimizing patient care (reducing low-value activities, improving access, etc.)
- Reducing inequities in care and outcomes
- Enhancing prevention and integration of health promotion and wellness
- Collaborative partnerships, research and innovation to inform decision making
- Development of clinical pathways, guidelines and dashboards
- Vascular risk reduction policies and sustainability
- Surveillance and monitoring of risk factors and health system utilization

Impact on health and care

Over the past year, the CvHS SCN has led studies and supported a variety of provincial initiatives that have:

- Advanced knowledge in the area of cardiovascular and stroke care
- Improved access to EVT, particularly for rural Albertans.
- Supported screening and care enhancements, practice change, and improved outcomes for Albertans who experience or are at risk of cardiovascular disease or stroke.
- Contributed to the implementation of care paths and clinical pathways for COPD and HF and development of the ACBI initiative, which are all expected to improve quality of care by reducing clinical variation; hospital stays, readmissions and emergency visits; and improving patient transitions in care and value across the system.

CARDIOVASCULAR HEALTH AND STROKE

Grants and Publications



69

Peer-reviewed Publications



18

Workshops & Presentations

Outcomes and Impact

100%

of sites that have launched Connect Care are able to access HF/COPD Care Paths and reporting tools



\$4.7M

Research Grants



184

Research Members

3:1

preliminary estimate of return on investment for ERA program (\$)

www.ahs.ca/cvhsscnc



CRITICAL CARE

SENIOR PROVINCIAL DIRECTOR

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Nancy Fraser, MSc (to 04/2022)

SCIENTIFIC DIRECTOR

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University of Alberta

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SCN MANAGER

Jeanna Morrissey, RN, MN

**Department of Critical Care Medicine,
University of Calgary**

Major initiatives and achievements, 2021-2022

Understanding critical illness & critical care services use among Indigenous Peoples in Alberta: A partnership between the Critical Care SCN (CC SCN) and Indigenous Wellness Core (IWC)

The CC SCN and IWC embarked on a health system transformational journey in 2021. The intergenerational trauma endured by Indigenous Peoples has impacts across the healthcare continuum, with limited insight in critical care (ICU) settings. The CC SCN™ and IWC™ have identified an urgent need to build relationships and tools to close knowledge gaps in ICU care for Indigenous Peoples. The key output is to understand the ICU needs of Indigenous Peoples, enhance culturally safe care, and direct health system transformation.

In the past fiscal year, in collaboration with the IWC, we have undertaken a systematic review (SR) and meta-analysis of the incidence and outcomes of critical illness in Indigenous Peoples. The published SR Protocol is available [here](#), and the larger program of work is being developed. The team is currently working to establish an Indigenous Advisory Committee (IAC) and building relationships with Indigenous communities. The IAC will involve co-design, using a Two-Eyed Seeing approach, which requires Ethical Space be created in partnership with Indigenous communities.

This work will help close existing knowledge gaps regarding the ICU care needs of Indigenous Peoples. Indigenous Peoples will directly benefit from improved knowledge of AHS' ICU services, increasing cultural safety in ICU care, and voicing needs to improve lived experiences. An intangible impact will be the trust built between AHS and Indigenous communities through mutual actions and respect.

Implementing clinical best practices that improve patient safety, outcomes, quality and value

DIALYZING WISELY: Improving the delivery of acute dialysis to critically ill Albertans

The SCN Scientific Office is collaborating on a PRIHS-funded research study led by Dr. Oleksa Rewa (University of Alberta) to address substantial variability in practice across clinicians and Alberta ICUs for acute dialysis. This variability contributes to care that is inconsistent and not provided in a way that optimizes patient experience or outcomes. DIALYZING WISELY aims to address this care-gap by implementing harmonized performance indicators and best evidence-based practice standards provincially to improve acute dialysis across Alberta. Partners in this work are extensive and include patient and family advisors, multiple SCNs, the University of Alberta, and the Alberta Kidney Care program (North and South).

Continuous improvement and adoption of clinical best practices is a key deliverable. Implementing an acute dialysis pathway in ICUs across Alberta is expected to positively impact quality of life and patient-centered outcomes for survivors of critical illness treated with acute dialysis (reducing dialysis utilization and long-term chronic dialysis therapy); enhance health system efficiency (standardizing acute dialysis therapy); and achieve healthcare cost savings.

This innovative, stakeholder-informed and evidence-based clinical pathway builds on and scales Dr. Rewa's prior work on the development of key performance indicators (KPIs) for acute dialysis therapy. In the past fiscal year, work has progressed on the development of KPI reports and a data dashboard, knowledge translation strategies, and audit and feedback tools. Work will continue in fiscal year 2022-2023.

"Dialysis is hard physically and mentally. You feel exhausted all the time...It would be absolutely amazing to have my life back and not be on dialysis. It would improve my quality of life 100%."
AB chronic dialysis patient

DON'T MISUSE MY BLOOD – This PRIHS-funded work focuses on appropriateness by reducing avoidable blood component transfusions and daily blood tests for patients admitted to critical care and high-risk surgical units. Initiation and implementation of this project was placed on hold during the COVID-19 pandemic. Work resumed in April 2022, with the blood transfusion arm of the project scheduled to rollout January 2023.

VENTING WISELY – This HHS-funded work focuses on implementing a comprehensive, evidence-informed care pathway for critically ill patients with respiratory failure who require mechanical ventilation. The aim is to improve outcomes for these patients

by optimizing and standardizing mechanical ventilation strategies and practices.

Provincial implementation progressed over the past year at all adult critical care units in Alberta. Implementation occurred at 15 adult ICUs and 2 cardiovascular ICUs, with the remaining 4 units completed by June 2022.

Critical care work during and after COVID-19: Exploring changing identities and practices associated with recovery from burnout

Critical care clinicians (CCC) face alarmingly high rates of burnout, ranging from 40% to 70%, which was further amplified by COVID-19. These high rates of burnout are associated with moral distress, long work hours, and the burdens of end-of-life decision-making, which is unique to critical care work. Mitigating CCC burnout is identified as an **area of focus and tied closely to the strategic direction of System Transformation in the CC SCN Transformational Roadmap**.



In 2021, the CC SCN collaborated with Dr. Tanya Mudry (University of Calgary), on a program of work related to burnout in ICU. Dr. Mudry was awarded a SSHRC Insight Development grant for 2021-2023 on this program of work. In the past fiscal year, Dr. Mudry's team conducted a survey examining the impacts of COVID-19 on the wellbeing of CCCs in Alberta, including factors that contributed/protected clinicians from burnout and those that supported/interfered with recovery. Findings will help identify areas of improvement in the work environment for CCCs and areas of support for preventing burnout.

The impact and effects of burnout are far-reaching and experienced by patients (quality of care, medical errors, suboptimal attitudes), critical care settings (reduced safety climate, decreased job satisfaction and retention), and our health system (economic loss). Phase 2 is underway and involves interviewing CCCs, focusing on mitigation and recovery from burnout.

Actions and areas of focus

- Improving care of critically ill patients through evidence-based research, innovation, and collaboration
- Growth as a learning health system by supporting evidence-informed decision making, including mobilizing data for QI
- Implementing clinical best practices to optimize care and improve patient safety and outcomes for critically ill Albertans
- Reducing unwarranted variation in the health system to support sustainability of critical care resources
- Building critical care research capacity to address gaps in knowledge and foster innovation

Impact on health and care in Alberta

System transformation, clinical best practices, and evolving as a learning healthcare system aim to positively impact patient care in Alberta ICUs and areas upstream and downstream from critical care. Achieved and anticipated impacts focus on:

- Building relationships with Indigenous Peoples and contribute to closing knowledge gaps in ICU care needs of Indigenous Peoples.
- Improving the delivery of acute dialysis to critically ill Albertans by implementing harmonized performance indicators.
- Improved accountability and quality of care through use of key performance indicators and audit and feedback.
- Mitigating health care practitioner burnout in the ICU to improve patient, family, and healthcare provider experience and satisfaction

CRITICAL CARE

Grants and Publications



29

Peer-reviewed Publications



35

Workshops & Presentations



\$1.62M

Research Grants



113

Research Members

Outcomes and Impact

Full-scale implementation & evaluation

of clinical best practices for mechanical ventilation (VENTING WISELY) progressed at

all adult critical care sites in Alberta

www.ahs.ca/ccscn



DIABETES, OBESITY & NUTRITION

SENIOR PROVINCIAL DIRECTOR

Balraj Mann, RN, MS/MBA (from 04/2022)

Lene Jorgensen (Interim), B. Kin (from 12/2021 to 04/2022)

Petra O'Connell, BSc, MHA (to 11/2021)

SENIOR MEDICAL DIRECTOR

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SCIENTIFIC DIRECTOR

(Vacant) (10/2021 to present)

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ASSISTANT SCIENTIFIC DIRECTOR

Dr. Rosmin Esmail, PhD, Adjunct Lecturer, Cumming School of Medicine, University of Calgary (since 03/2022)

Dr. Naomi Popeski, PhD, Adjunct Professor, Community Health Sciences, University of Calgary (to 11/2021)

EXECUTIVE DIRECTOR

Lene Jorgensen, B.Kin

SCN MANAGER

Catherine Joseph, MSc

KEY PARTNERS

Alberta Blue Cross

Primary Care

AHS, Nutrition and Food Services

University of Alberta

University of Calgary

Medicine SCN, Kidney Section

10 Diabetes Clinics

Alberta Health Living Program

Major initiatives and achievements, 2021-2022

The Diabetes, Obesity & Nutrition (DON) SCN continues to advance projects that improve access to provincial diabetes data, diabetes prevention, and interventions in the community for people living with, or at risk of, diabetes, obesity and malnutrition.

Creating Harmony in Care

Co-created with Indigenous communities (Piikani Nation and Blood Tribe / Kainai Nation), this work focuses on addressing the person, the community, the care and system factors that are important in helping people with (or at risk of developing) diabetes live a healthy life. The project received a \$15,000 grant from the Indigenous Primary Health Care Policy Research Network (IPHCPRN) to help inform policy changes in Primary Care. Over the past year, its scope expanded to include the Kidney Health Check project, a screening protocol for kidney disease.

[Learn more](#)



Bringing this work under one umbrella enables the DON SCN to take a more holistic approach to the prevention and management of chronic disease (kidney, diabetes, obesity and hypertension) and sets the stage for a comprehensive chronic disease screening approach that can be customized and co-created with First Nations communities across the province.

The screening approach leverages community resources and is expected to improve quality of care, outcomes and patient experience by creating harmony in care with Indigenous communities. It focuses on ensuring that individuals screened for chronic diseases are appropriately referred to specialty and primary care and have access to healthy lifestyle programs and resources. By aligning with AHS Indigenous Health Commitments and working closely with community healthcare teams, Elders, Knowledge Keepers, patients and families, and other key partners, we can ensure the care provided:

- is culturally appropriate and relevant
- is founded in traditional and western evidence
- incorporates the wisdom and resources in the community
- addresses social determinants of health and the unique needs of the whole individual

In the spirit of incorporating practices that resonate directly with community, this project uses graphic recordings to capture feedback, wishes, stories and important insights from community members. This builds on traditional Indigenous oral and story-telling practices.

Virtual Diabetes Prevention Program

In Alberta, approximately 667,000 people live with prediabetes. Prevention efforts are critical to reduce the health and economic burden of this chronic disease on Albertans and the health system. Most Type 2 diabetes cases and associated complications can be prevented through targeted lifestyle changes such as dietary modifications, physical activity, and weight loss.

The DON SCN launched a [pilot study](#) in 2021 aimed at preventing Type 2 diabetes in adults who currently have prediabetes and patient recruitment began in 2022. The Virtual Diabetes Prevention Program (vDPP) is a collaboration between the DON SCN, Alberta Blue Cross, and Primary Care. Its goal is to empower Albertans to live healthy lives by embedding diabetes prevention into our healthcare system and supporting individuals' food and fitness choices.

"When I was offered the chance to join this, I thought - who in their right mind would ever turn THIS down! Love the support."

vDPP participant

The vDPP is recognized by the Centers for Disease Control and Prevention (CDC) and uses the extensively researched CDC Diabetes Prevention Program (DPP) curriculum to promote lifestyle changes such as weight loss, healthy eating and physical activity. Patients who enroll in the year-long program receive in-the-moment fitness, nutrition, and well-being coaching and support from expert health coaches via a smartphone app. The program is free to patients and is offered as an adjunct to usual care through patients' primary care provider.

A key strength of this initiative is the partnerships that have been established, and those that continue to be built. In 2021-2022, the project team raised awareness of the program, delivering presentations to 12 primary care networks (PCNs) across Alberta and leading ongoing engagement efforts. Programs such as vDPP are an important prevention strategy to help reduce the burden of chronic disease in our province.

Other highlights

PARTNERSHIP: To support all patients requiring surgery in Alberta hospitals at risk for hyperglycemia (high blood sugar), the DON and Surgery SCNs collaborated on a \$1.2 million PRIHS-funded research project on the implementation of a perioperative glycemic management pathway that enables patient screening for diabetes before surgery, helps manage patients at greatest risk of high blood sugar following surgery and treats high blood sugar. Foothills Medical Center Gynecology Oncology was the pilot site with 6 more sites planned for implementation.

SUPPORTING OPERATIONS: The **Insulin Pump Therapy Program (IPTP)** helps people living with Type 1 and 3c (insulin deficient) diabetes better manage their diabetes by providing funding support to individuals for an insulin pump and/or pump supplies. The DON SCN supports the program and diabetes clinics, delivering evidence-based care to achieve standardization across the province.

The **Alberta Healthy Living Program (AHLF)** offers diabetes, weight management and nutrition services for Albertans living with chronic conditions. The DON SCN helped develop a comprehensive evaluation framework including a patient experience survey for these programs.

Impact on health & care in Alberta

The DON SCN focuses on empowering patients, families and care providers to manage diabetes, obesity and malnutrition, and enhancing care for Albertans with these conditions by:




- Preventing or delaying onset of Type 2 diabetes
- Expanding prevention programs and transforming diabetes management
- Improving the care experience for patients living with obesity
- Identifying opportunities for chronic diseases prevention and management through collaboration with primary care partners
- Reducing risk of malnutrition for seniors in the community
- Identifying gaps in diabetes care in Alberta
- Developing new, collaborative partnerships with researchers in Alberta and Canada



Actions and areas of focus

- Lead the development of innovative **virtual care delivery**
- Continue to focus on **preventing complications** of chronic disease
- Implement and evaluate innovations in **preventing the onset of chronic disease**
- Collaborate with Indigenous communities to create **Harmony in Care**
- Strive to build our work from a foundation of **equity, diversity, and inclusion**

DIABETES, OBESITY & NUTRITION

Grants and Publications	Engagement	Outcomes and Impact
 4 Peer-reviewed Publications	 43 Workshops & Presentations	 ~4,500 patients received standardized pump care since 2013 at 10 diabetes clinics across Alberta
 \$1.6M Research Grants	 196 Research Members	 2022 marks the 10 year anniversary of the DON SCN This video highlights outcomes & impact of the work to date to improve care for people living with diabetes, obesity and malnutrition



DIGESTIVE HEALTH

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ASSISTANT SCIENTIFIC DIRECTOR

Dr. Susan Jelinski, BSc, MSc, PhD,
DVM, University of Calgary

SCN MANAGER

Malanie Greenaway, BScOT

50 Endoscopy teams from across Alberta

Academic Departments of
Gastroenterology

Major initiatives and achievements, 2021-2022

Pandemic Recovery – Measuring Endoscopy Wait Times with ACATs-E

Endoscopy services in Alberta were delayed and interrupted during the pandemic. The presumed backlog has meant that a considerable number of Albertans may be experiencing longer-than-usual wait times for their endoscopic procedure. Currently, a province-wide list of patients waiting for endoscopic procedures does not exist, so the exact number is not known. The development, measurement, management and reporting of indication-driven endoscopy access targets are key to addressing the pandemic recovery and establishing a sustainable endoscopy service delivery model for the future.

To this end, the Digestive Health SCN (DHSCN) secured \$584,750 in grant funding in the past fiscal year to develop and implement the **Alberta Coding and Access Targets for Endoscopy (ACATs-E)**.

Implementation of ACATs-E will improve wait list and wait time management by providing a standardized approach used by all endoscopists across Alberta. The coding system will clearly define appropriate wait times for patients with specific clinical indications, promoting urgency-based booking that ensures patients with higher-risk indications are prioritized for more rapid access to endoscopy. It will also generate reliable, objective data that can be acted upon to improve patient flow and overall system efficiency. The model is also expected to improve patient experience by improving transparency about how long patients can expect to wait based on their diagnosis, procedure, and level of urgency. [More >](#)

Provincial implementation of ACATs-E began in fall 2021 using a staggered approach. Endoscopy providers receive support from the ACATs-E team, and the goal is to complete implementation at 22 of the 50 endoscopy sites in Alberta by September 2022. The remaining 28 sites will come online according to the Connect Care launch schedule, beginning in November 2022.

Comparing the pre-COVID period (Jan 2018-Feb 2020) to the pandemic period (Mar 2020-Mar 2022):

12% reduction in average monthly adult endoscopy volumes in Alberta

48,000 fewer endoscopies performed compared to expected activity based on pre-pandemic volumes

Improving endoscopy quality in Alberta

Endoscopy plays an important role in the diagnosis and treatment of many digestive diseases. The DHSCN is committed to improving the quality of endoscopy procedures across Alberta, and has partnered with provincial stakeholders to endorse the use of the **Canada-Global Rating Scale (C-GRS)**. The C-GRS is a tool that evaluates several dimensions of endoscopy quality and empowers local endoscopy units to benchmark their own continuous improvement.

The C-GRS requires endoscopy units to record complications and adverse events to detect and monitor recurring patterns or unusual numbers of events related to endoscopy. Delayed complications that prompt patients to make an emergency department (ED) visit are difficult to accurately capture. Endoscopy units often rely on patient self-report of these ED visits, which under-reports this aspect of safety.

Drs. Susan Jelinski (ASD), Nauzer Forbes, and Robert Hilsden (gastroenterologists) were awarded the University of Calgary Department of Medicine Clinical Analytics Grant for 2021-2022. Their application proposed developing an automated, real-time data capture system using Alberta provincial healthcare databases and electronic medical records (EMRs) to detect when a patient visited an ED after an endoscopy.

This project has resulted in the creation and launch of a real-time Tableau dashboard that can be used within endoscopy units. Staff are alerted if their patients have made an ED visit within 72 hours of having an endoscopy for symptoms that are related to the procedure. With this system, endoscopy staff can immediately contact patients and provide follow-up care. Moreover, the initial endoscopy pilot site can now track trends in possible complications over time and develop site-specific, data-driven quality and safety improvement strategies.

The dashboard is currently piloted at the Forzani & MacPhail Colon Cancer Screening Centre. The vision is for any endoscopy unit in the province to be served by this dashboard.

Other highlights

RESEARCH: The DH SCN partnered with Dr. Puneeta Tandon, a University of Alberta hepatologist, to improve cirrhosis care in Alberta. Dr. Tandon successfully secured \$1M in PRIHS grant funding to develop the Cirrhosis Care Alberta (CCAB) Program.

As part of CCAB, the Cirrhosis Care website (cirrhosiscare.ca) launched in spring 2021 and serves as a comprehensive resource for patients with cirrhosis, their families, and healthcare providers. It includes extensive education materials for patients and families in both written and video formats, with many helpful links. These resources enable patients to be well informed, enable active participation in their care, and support self-management.

For healthcare providers, the website includes care algorithms, order sets, symptom calculators, patient handouts, and other resources to optimize assessment and care for patients with cirrhosis.

Cirrhosis order set implementation has been integrated into a broader AHS acute care quality improvement priority referred to as the Acute Care Bundle Improvement (ACBI) initiative. This will see unit teams on medicine services at the 14 largest sites work towards greater uptake of care paths and order sets in Connect Care.

Impact on health and care in Alberta

The DH SCN has developed strong relationships with clinicians, operational partners and others and is using data to:

- Improve outcomes and patient experiences for people with digestive health conditions
- Improve patient safety and reduce unwarranted variation in care
- Inform and implement practice changes that improve efficiency, clinical utilization and deliver cost savings
- Monitor pandemic recovery and develop strategies for sustainable endoscopic services



Actions and areas of focus

- Integrate primary and specialty care approaches for digestive diseases and improve access to advice, care and endoscopy procedures
- Reduce unwarranted variation and improve clinical appropriateness and efficiency of testing and therapies for digestive conditions
- Develop and implement clinical pathways to improve disease prevention, management, and continuity of care
- Implement policies to prevent digestive disease and improve the screening, diagnosis and treatment of liver disease

DIGESTIVE HEALTH

Grants and Publications



16

Peer-reviewed Publications

Engagement



17

Workshops & Presentations

Outcomes and Impact

In the Spring 2021 C-GRS Provincial Endoscopy Patient Experience [Survey](#) (PEPES), **more than 80% of patients* reported:**

- ✓ high overall satisfaction with care ("strongly agree")
- ✓ positive experiences ("very satisfied") with nursing staff (88%), their endoscopist (85%) and the endoscopy appointment (92%)

* 1517 survey respondents



\$0.97M

Research Grants



25

Research Members



EMERGENCY

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Dr. Eddy Lang, MD, CCFP(EM),
CSQM, University of Calgary, AHS

EXECUTIVE DIRECTOR

Marlene Wheaton-Chaston,
RN, BScN, ENCC, AHS

KEY PARTNERS

**Alberta First Nations Information Governance
Centre**

Alberta Medical Association

Emergency Medical Services (EMS)

Academic Departments of Emergency Medicine

**Plus many AHS teams, community programs &
services**

SENIOR MEDICAL DIRECTOR

Dr. Brian Holroyd, MD, MBA,
FACEP, FRCPC, University of Alberta,
AHS

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Patrick McLane, MA, PhD, AHS,
University of Alberta

SCN MANAGER

Andrew Fisher, BTh, ACP,
AHS

Major initiatives and achievements, 2021-2022

Partnerships with First Nations organizations advance knowledge and research in emergency care

The Emergency SCN (ESCN) and its Scientific Office continue to partner with First Nations organizations on projects that address the emergency care of First Nations members. This work is supported by an Elder Advisory group that includes members from the three Treaty areas in Alberta. Over the past fiscal year, we have continued to advance understanding within the medical community about the experience and care of First Nations patients in emergency departments (EDs) and translate learnings into actions that address systemic and institutional racism and improve care and outcomes for First Nations members.



*Patrick McLane (Assistant Scientific
Director, ESCN) and Lea Bill (Executive
Director, Alberta First Nations Information
Governance Centre)*

Evidence synthesis and knowledge sharing - Following on publications reported in prior years, we published the only provincial peer-reviewed [analysis of First Nations members' emergency department use](#) in any Canadian jurisdiction. Results show higher age and sex standardized per capita use of EDs by First Nations members than non-First Nations persons in all AHS zones, which we argue stems from gaps in primary care coverage.

We also published an analysis in the [Canadian Medical Association Journal](#) demonstrating that First Nations members are less likely to receive the most urgent triage scores in EDs than comparable non-First Nations patients. The article was covered locally, provincially and nationally in print, radio, and television by 21 news outlets. Importantly, it provides statistical support to First Nations members' longstanding reports of discriminatory treatment within emergency departments.

Project leads have presented qualitative and quantitative results provincially to First Nations organizations, AHS zone executives, Alberta Health, at conferences such as the Rural Emergency Medicine Conference, at Grand Rounds at the University of Calgary, and nationally to the [Canadian Association of Emergency Physicians \(recording\)](#). The work was also featured in [AHS' 2020-2021 Annual Research & Innovation Report](#). This knowledge translation work will drive action to address racism that First Nations members face in emergency departments.

New funding has been received through a Canadian Institutes of Health Research (CIHR) grant to develop anti-racist simulation training in partnership with First Nations organizations and the Métis Nation of Alberta. Building on work underway by the AHS Indigenous Wellness Core and the provincial eSim Team, these funds will ensure that project findings inform anti-racist education for providers. AHS has also provided \$190,000 to develop an intervention project with First Nations organizations to make EDs more culturally safe for First Nations members.

Outreach and engagement - In July 2021, the ESCN supported provincial engagement sessions led by the Alberta First Nations Information Governance Centre in partnership with provincial EMS. The study team presented statistics and collected qualitative data on First Nations transitions in care involving paramedics. Results are currently being analyzed.

New care model for long-term care residents in times of medical urgency

Evidence demonstrates that emergency department care often has adverse consequences for long-term care (LTC) residents. Through PRIHS funding, Dr. Jayna Holroyd-Leduc (University of Calgary) is leading a standardized LTC-to-ED care and referral pathway supported by a centralized telephone triage system, community paramedics, and early identification tools for acute medical issues (INTERACT® tools).

Guided by a Resident and Family Council, the project was implemented in over 40 LTC facilities in the Calgary Zone. To date, 325 care providers have been trained through a train-the-trainer model to implement the program. Evaluation of program impact has been significantly confounded by COVID-19, but is ongoing.

Research to support responses to the opioid crisis

In addition to continuing to advance CIHR-funded projects on the impacts of COVID-19 on opioid use disorder treatment, members of the ESCN leadership team are co-investigators on a project led by Dr. Grant Innes (University of Calgary) on how emergency physician opioid prescribing relates to patients developing opioid use disorder. We are also supporting a project led by Dr. Jessica Moe (University of British Columbia) examining a new “micro-dosing” practice for opioid agonist treatment in emergency departments.

Other highlights

Provincial coordination and support during the ongoing COVID-19 pandemic

Alongside other efforts over the past year, the ESCN created a COVID-19 vaccination program within select EDs to serve populations who may not routinely access care outside the ED.

Improving Access to Care

In February 2022, members of ESCN leadership, in collaboration with operational leaders, presented and advocated to the AHS Clinical Operations Executive Committee for system-wide solutions to address ED in-patients (EIPs) and access block. Subsequently, a half-day provincial “Patient Movement Improvement” session was held in June to brainstorm potential short- and long-term solutions to system access in Alberta.

Impact on health and care in Alberta

Through its partnerships with key stakeholders and commitment to embed research into clinical practice, the ESCN is improving emergency care in Alberta. Over the past year, its work has included:

- Supporting AHS' response to the COVID-19 pandemic
- Addressing gaps in knowledge around health equity and emergency care
- Supporting patient and provider safety in emergency settings.

In collaboration with AHS Workplace Health and Safety and operational site leaders, the ESCN has introduced and supported implementation of the Prevention of Harassment and Violence (POHV) Strategy and Behavioural Safety Program at 2 EDs (2 others are currently in progress).

The ESCN has included equity considerations in its application process for summer studentship and systematic review competitions. We are also leading work to develop pan-SCN practice for equity in scientific competitions.



Actions and areas of focus

- Improve patients' and families' experience in EDs/UCCs through enhanced communication, timely patient access and quality patient care
- Support care of patients with opioid use disorder, reduce overdose deaths and align initiatives with the opioid crisis across Alberta
- Build emergency research capacity, advance and disseminate knowledge
- Support clinical research projects and implementation of Connect Care and Choosing Wisely™ guidelines
- Improve patient and provider safety in emergency settings

EMERGENCY

Grants and Publications



22

Peer-reviewed Publications



30

Workshops & Presentations

44%

of Alberta EDs referred patients to the Virtual Opioid Dependency Program in 2021-22



\$1.72M

Research Grants



32

Research Members

121

clinicians, ED managers, operations leaders, nurse educators, and others attended the 2022 ESCN Quality Improvement and Innovation Forum



MATERNAL, NEWBORN, CHILD & YOUTH

SENIOR PROVINCIAL DIRECTOR

Shelley Valaire, MA

SCIENTIFIC DIRECTOR

Dr. Deborah McNeil, MN, PhD,
University of Calgary, ACHRI, O'Brien
Institute of Public Health

EXECUTIVE DIRECTOR

Pamela Baines, BSc PT, MHS

SCN MANAGER

Katie Richardson, MSW (since
01/2022)

PROGRAM MANAGER, ALBERTA PERINATAL HEALTH PROGRAM (APHP)

Stacey Nyl, RN, MN

KEY PARTNERS

Alberta Children's Hospital
Research Institute (ACHRI),
University of Calgary

Women and Children's Health
Research Institute (WCHRI),
University of Alberta

SENIOR MEDICAL DIRECTOR

Dr. David Johnson, MD, University of
Calgary, ACHRI, O'Brien Institute of Public
Health

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Seija Kromm, MA, PhD,
University of Calgary

Major initiatives and achievements, 2021-2022

The Maternal, Newborn, Child and Youth (MNCY) SCN and its Scientific Office have advanced work on several important initiatives focused on improving health outcomes and health service delivery for mothers and children. Collaboration with patients, families, researchers and health partners across Alberta has been an important part of this work.

Helping Youth Transition to Adult Healthcare

1. Transition Navigator Trial

Children with chronic diseases and/or medical complexity are at significant risk of poor outcomes as they transition to the adult health care system. Going from pediatric specialty care (which may include heavy parental involvement and multidisciplinary patient-centred care) into the complex, patient-driven adult system can be stressful, and research shows that many children suffer declines in health and loss of follow-up at this stage. For this reason, improving the transition to adult care for children with chronic disease has been an important priority for the MNCY SCN.



Dr. Susan Samuel (Pediatric nephrologist, University of Calgary, and co-Principal Investigator of this project) has been studying this issue for years with colleagues Dr. Andrew Mackie (Pediatric cardiologist, University of Alberta, and co-PI) and Dr. Gina Dimitropoulos (Associate Professor, Social Work and Psychiatry, University of Calgary). The team obtained funding from the Health Outcomes Improvement Fund (MNCY SCN, AHS) and Canadian Institutes of Health Research for a large pragmatic trial of a Transition Navigator service. Transition Navigators are knowledgeable healthcare providers who help address barriers and challenges for patients by developing patient-specific transition plans. They assess readiness for the transition, help the patient prepare and organize key information, and assist with appointments and follow through while striving towards self-management.

More than 300 patients were recruited from pediatric specialty clinics in Edmonton and Calgary and randomized to receive usual care or access to a Transition Navigator service. Evaluation of the pilot will compare emergency department visits and other health care utilization measures between the two groups. Youth and family perceptions of the service and their reflections on barriers to successful transition will also be studied. [Learn more about the Transition Navigator Trial](#)

Recruitment was completed in 2021, and the final year of data collection is underway. To date, the service has been deemed so successful that permanent Transition Navigator positions have been funded in Calgary and Edmonton in advance of the final study results. This study highlights how the MNCY SCN is helping mobilize evidence into practice and the value of its research collaborations. Its Health Outcomes Improvement Fund supports interventions that address [MNCY SCN priorities](#), and helps advance research from the pilot stage to sustained action that benefits families across Alberta.

2. Well on Your Way Website

Supported by the MNCY SCN, the [Well on Your Way](#) website launched in early 2022. It offers youth, families, and healthcare providers a single source of comprehensive information, tools, and resources related to the transition to adult care. The [Health Professional Toolkit](#) includes screening tools and checklists, while [parents](#) can access concrete planning tools, conversation guides and legal information. [Youth](#) can access information on relevant health topics, videos and tips on health management, and resources to support independent living.

This resource delivers on the [MNCY SCN's priority](#) to facilitate transitions for children with chronic and/or complex care needs to adult services, by preparing youth and their caregivers for the changes ahead.

Alberta Family Integrated Care (FICare)

Alberta FICare started its scale and spread to 14 Neonatal Intensive Care Units (NICUs) across Alberta in November 2019 and completed this work in June 2022 amid the COVID-19 pandemic and Connect Care implementation. This work was led by Dr. Karen Benzies (University of Calgary) and Dr. Deb McNeil (Scientific Director, MNCY SCN) and funded by a Health Innovation Improvement Scale and Spread (HIIS) grant from Alberta Health and AHS.

Data shows that provincial implementation of Alberta FICare is positively impacting patient and provider experience and value for Alberta's health system. To date, multidisciplinary implementation teams at all Alberta NICUs have been successful in creating positive experiences for parents and staff as well as contributing to health system costs averted of \$215,000/month (Figure 1) on average through reduced length of stay. There was also a significant reduction in emergency department visits and hospital readmissions (Figure 2). To learn more, visit www.ahs.ca/AlbertaFICare.

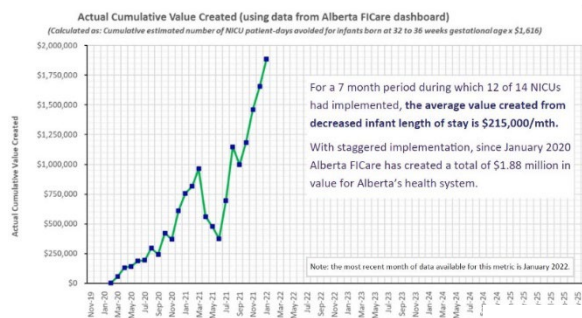


Figure 1

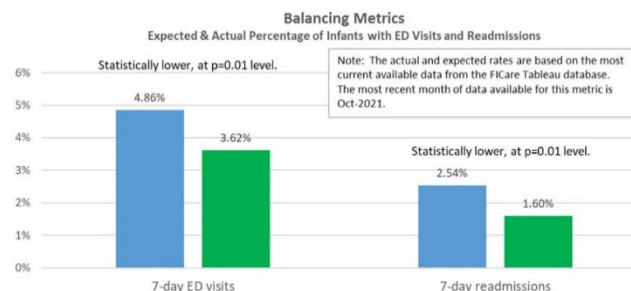


Figure 2

Fetal Health Surveillance (FHS)

Jeannie Yee, education consultation coordinator with the Alberta Perinatal Health Program (APHP), led the development of a Fetal Health Surveillance (FHS) toolkit that aligns with FHS guidelines released in 2020 by the Society of Obstetricians and Gynaecologists of Canada (SOGC). This work involved extensive collaboration by a diverse group of healthcare professionals from across AHS. The group also developed a provincial FHS education framework to ensure consistent content and delivery of FHS education province-wide to improve health outcomes of pregnant persons and newborns. These examples demonstrate how the merger of APHP and the MNCY SCN supports their mutual goal of creating evidence-informed education and clinical care tools to reduce variation in maternal and newborn care.

Actions and areas of focus

- Healthy mothers, newborns, children, youth and families
- Quality and sustainability
- Access to obstetrical care for rural, Indigenous, and marginalized women
- Optimized pediatric capacity
- Integrated and facilitated care transitions for children with complex needs

Impact on health and care in Alberta

The MNCY SCN continues to develop partnerships and build research capacity that positively impacts patient care for children, youth and mothers in Alberta. Over the past year, this work has contributed to:

- Improved supports for youth with complex and/or chronic health conditions transitioning from pediatric to adult health care services: transition navigators and well on your way website
- Alberta Family Integrated Care implemented in 14 NICUs across Alberta and demonstrates value to the health system of \$215,000 per month.
- Evidence-informed care is implemented for MNCY SCN populations.

MATERNAL, NEWBORN, CHILD & YOUTH

Grants and Publications



27

Peer-reviewed Publications

Engagement



9

Workshops & Presentations

Outcomes and Impact

Reduced variation in maternal and newborn care through Alberta FICare implementation, FHS toolkit & education framework



\$4.5M

Research Grants



102

Research Members

Reduced infant length-of-stay, ED visits & hospital readmissions through implementation of Alberta FICare & Transition Navigator Service



MEDICINE

Hospital Medicine, Kidney Health, Respiratory Health

Shared Leadership	SENIOR PROVINCIAL DIRECTOR Louise Morrin , BSc (PT), MBA	SENIOR MEDICAL DIRECTOR Dr. Anna Purdy , MD, University of Calgary Dr. Jeffrey Schaefer , MD, University of Calgary (to July 2021)	EXECUTIVE DIRECTOR Anita Kozinski , BSc, MHA	ASSISTANT SCIENTIFIC DIRECTORS Dr. Marni Armstrong , PhD, University of Calgary Dr. Lesley Soril , PhD, University of Alberta
	SECTION LEADS	SCIENTIFIC DIRECTORS	MANAGERS	
Hospital Medicine	Dr. Jim Eisner , MD, University of Calgary	Dr. Raj Padwal , MD, MSc, University of Alberta	Chris Roach , BSc, Dip HEP	
Kidney Health	Dr. Jennifer MacRae , MD, MSc, University of Calgary	Dr. Neesh Pannu , MD, SM, University of Alberta Dr. Scott Klarenbach , MD, MSc, University of Alberta	Terry Smith , BSc, MN	
Respiratory Health	Dr. Ron Damant , MD, University of Alberta	Dr. Michael Stickland , PhD, University of Alberta	Eileen Young , BSc	

Major initiatives and achievements, 2021-2022

The Medicine SCN (MSCN), which launched in April 2020, builds on past achievements in kidney and respiratory health, while extending its scope and relationships to hospital medicine. Bringing these communities together as one network enables us to advance common priorities, undertake cross-cutting projects, tackle complex, multidisciplinary challenges, and accelerate innovation and health system improvements on a provincial scale.



Medicine SCN Cross-Cutting Projects

Enhancing the safe and effective use of point-of-care ultrasound

Current technology now allows for point-of-care ultrasound (POCUS) to be performed at the bedside and this has become the recommended standard of care. Led by Drs. Irene Ma, Elaine Dumoulin and Ada Lam, the MSCN is supporting the development of a provincial approach to using POCUS for consultation or to perform a bedside procedure for adult patients admitted to hospital. Provincial quality indicators and metrics are being developed to monitor and measure progress and to ensure that this technology is accessible to all patients in Alberta and used according to consistent quality standards.

Understanding the early impact of and care for post-COVID conditions

An estimated 10-20% of Albertans who contract COVID-19 will face debilitating sequelae and disabilities from long-COVID that impact their quality of life and capacity to work. The MSCN has supported a standardized data collection and evaluation system for the pulmonary-led and Inter-professional Outpatient Programs (IPOP) long-COVID clinics across the province. In 2021, the MSCN helped complete a descriptive evaluation of access and patient characteristics for the pulmonary-led post-COVID clinics. This information will be used to inform future evaluation and planning for the IPOP clinics, supporting access to high-quality, patient-centred care.



Hospital Medicine

Reducing lab test overuse among hospitalized medical patients

Research suggests that, on average, 21% of laboratory tests are over-utilized, which has been associated with preventable harm through hospital-acquired anemia and subsequent blood transfusions, leading to poorer patient outcomes. There is also a substantial financial impact of unnecessary testing and increased risk of false positive results, leading to a cascade of further unnecessary testing. The Hospital Medicine Section is helping implement and evaluate a research project (led by Dr. Anshula Ambasta and Pam Mathura) that applies strategies such as clinical decision supports, adapted order sets, physician audit and feedback, and patient education to help reduce unnecessary laboratory testing.



Kidney Health

Implementing a patient-centred approach to hemodialysis care

The current standard of treatment for patients starting dialysis is 4 hours, 3 times per week, the same dose for everyone without consideration of remaining kidney function or patient preference. Incremental dialysis is a 'gentler' approach to

hemodialysis care that involves less frequent dialysis (e.g. 2 sessions per week), where patients are closely monitored and their dialysis time increased only as their kidney function indicates.

This implementation project, led by Dr. Neesh Pannu (SD), has been co-designed with patients, clinicians and operations managers and may result in a decrease in treatment costs for these patients in their first year of hemodialysis. Details on patient clinical outcomes, quality of life and experience are being captured. By the end of the 2021-2022 fiscal year, the project had been implemented at 8 key sites and there were approximately 50 patients on incremental dialysis on any given day across Alberta.

"For someone that had residual kidney function when they started dialysis, I believe I was the perfect candidate for the program. I have a job and family that bear a lot of responsibility, so my time is precious! Incremental dialysis was such a great option."

Incremental Dialysis Project
Participant



Respiratory Health

A standardized transition bundle to optimize COPD acute care

Chronic Obstructive Pulmonary Disease (COPD) is a leading reason for hospitalization in Alberta, as well as acute care readmissions and emergency department (ED) revisits. Minimizing care variability and improving coordination across the care continuum may lower COPD hospitalization and ED visits while improving quality and continuity of care.

The Respiratory Health section and Dr. Michael Stickland (SD), led a PRIHS-funded project to adapt, implement, and assess a clinical pathway and discharge bundle for patients with COPD to facilitate smooth transition from hospital and prevent returns to hospital and/or the ED. Results of this project were accepted in the journal *CHEST* (see [full publication](#)). In addition, the COPD discharge bundle and pathway have been integrated into Connect Care as a standardized care path and form part of the foundational elements of the Provincial Acute Care Bundle Improvement (ACBI) initiative.

Other highlights

Informing pandemic care and physician-level quality indicators

In support of the COVID-19 pandemic response, the Scientific Offices of the MSCN led and chaired several scientific reviews for the [Scientific Advisory Group](#) to provide important, up-to-date evidence on the management and treatment of COVID-19. The MSCN used the available evidence to develop clinical guidelines and worked with operational partners to create tools to support pandemic-related planning and decision making.

The Kidney Health Section, in collaboration with the Alberta Medical Association, disseminated an annual audit and feedback report to Alberta nephrologists with individualized data on appropriate medication use in nephrology patients.

Areas of impact and focus

- Empower patients to improve their experience and health outcomes
- Enhance integration to improve acute and chronic disease management and transitions between community and the hospital
- Identify opportunities and address gaps in care, enable clinical best practices and reduce unwarranted variation to support quality health care

MEDICINE

Grants and Publications



31

Peer-reviewed Publications



21

Workshops & Presentations

Outcomes and Impact

\$42K

in Grants Awarded for Respiratory Health Research



\$2.7M

Research Grants



249

Research Members

150

Audit & Feedback reports disseminated to physicians



NEUROSCIENCES, REHABILITATION & VISION

SENIOR PROVINCIAL DIRECTOR

Petra O'Connell, BSc, MHA (to 12/2021)
Balraj Mann, RN, MS/MBA (from 04/2022)

SENIOR MEDICAL DIRECTOR

Dr. Chester Ho, MD, University of Alberta

SCIENTIFIC DIRECTOR

Dr. Elisavet Papathanassoglou, PhD, MSc, RN, University of Alberta

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Kiran Pohar Manhas, PhD, JD, MSc, BSc (Pharm), University of Alberta and University of Calgary

EXECUTIVE DIRECTOR

Paul Wright, RN, BScN, CNNc (to 07/2022)
Shy Amlani, BASc, MSc(OT), MBA (from 07/2022)

SCN MANAGER

Nicole McKenzie, BSc, MSc

KEY PARTNERS

Campus Alberta Neuroscience
Eye Institute of Alberta (Univ. of Alberta)
Faculty of Rehabilitation Sciences (Univ. of Alberta)
Hotchkiss Brain Institute (Univ. of Calgary)
Neuroscience & Mental Health Institute (Univ. of Alberta)
Spinal Cord Injury Alberta

Major initiatives and achievements, 2021-2022

This past year, the Neurosciences, Rehabilitation & Vision (NRV) SCN and its Scientific Office advanced collaborative work on several provincial initiatives focused on clarifying patient experiences, advancing data- and evidence-informed performance measurement and decision-making, and promoting equity in access to care for patients and families requiring neurosciences, rehabilitation & vision care.

Clarifying the Burden of Vision Loss in Stroke

In November 2021, Drs. Fiona Costello, Karim Damji and Kiran Pohar Manhas shared the final report of a two-year research study examining patient and provider perspectives on gaps in care experienced by stroke survivors with visual impairment (VI). The study looked across the care continuum, including acute, tertiary and community care settings and involved two online surveys, each developed and validated from a Phase 1 qualitative study (n=50 interviews) and cognitive interviews (n=12). Participant recruitment extended sites across four Zones and 12 sites, targeting diverse participation including patients, stroke neurology teams, vision care providers, and rehabilitation providers. In total, 46 stroke survivors (43% female, 93.5% had VI post-stroke) and 87 providers (46% male) completed the surveys. [Read first publication](#)



Provincial priorities for improvement included professional training, patient and family resources, referral processes, and supporting patients with return to driving. The NRV SCN will now mobilize the community and form provincial working groups to address these priorities. This research was funded by the NRV SCN, CvHS SCN, and the Eye Institute of Alberta. Research funds from the Royal Alexandra Hospital Foundation will enable next steps.

Understanding Patient and System Impact of Post-COVID Rehabilitation Tools, Pathways & Resources

The NRV SCN continues to inform and advance a provincial approach to timely, standardized, and coordinated rehabilitation for adult patients recovering from COVID-19. Learn more about its approach and progress in developing the Provincial Post COVID-19 Rehabilitation Response Framework (PCRF) in this [publication](#) (June)

The Scientific Office is currently leading a new, CIHR-funded study evaluating the implementation of the Provincial PCRF, which recommends care pathways, standardized screening and assessment tools, and patient and provider resources. For patients recovering from COVID-19, the study examines (a) health service utilization and wait times; (b) patient experiences; and (c) provider perceptions and experiences of the Framework and its implementation. This evaluation will inform ongoing provincial implementation of the PCRF, and support persons recovering from COVID-19, particularly those impacted by Long COVID.

The CIHR grant has also enabled related research activities and outputs. For example:

- Three rural zone implementation consultants were hired to support locally appropriate implementation of the PCRF
- AHS Clinical Analytics developed a dashboard to assess provincial health service utilization data in the pre-implementation phase, corresponding to COVID-19 survivors from Waves 3 and 4 of the COVID-19 pandemic.
- The NRV SCN Scientific Office co-designed a patient experience survey to identify priority measures regarding rehabilitation access and navigation for patients recovering from post-COVID conditions. Initial priorities related to patient experience of symptoms, information access, access to services and providers, as well as perceived provider knowledgeability.
- The survey was pilot-tested with AHS' Primary Data Support, who began data collection in March 2022 and sought a stratified, random sample of 300 persons who tested positive during Waves 3 or 4 (50:50 hospitalized:non-hospitalized experience; and 60:40 urban:rural dwelling).

Advancing a Strategy for Data-Informed Quality Improvement in Spinal Cord Injury (SCI)

In 2020-2022, the Scientific Office sought to co-design a provincial quality improvement strategy for SCI care that mobilizes nationally-independent registry data currently collected for research purposes: the Rick Hanson SCI Registry (RHSCIR).

In 2021, the Scientific Office completed an environmental scan that generated six key learnings to guide QI initiatives that use patient registry data. A patient advisor focus group was held in summer 2021 to discuss priority areas of SCI care and RHSCIR data elements. Since then, a provincial steering committee has led discussions on how RHSCIR data could be used for provincial quality improvement in SCI care.

The committee has identified 3 priority areas: secondary complications; discharge planning; and transitions in care. Learnings to date were shared at the Canadian Association of Health Services and Policy Research (CAHSPR) national conference (May 2021) and a provincial quality improvement strategy report is currently under development.

"I've been a part of [the RHSCIR for QI grant] for almost a year.... I found interesting there are different programs used to collect data. I have worked with SCI individuals for 10 years. During that time, I assisted in collecting data for RHSCIR. This data is important and valuable; but let's not let it sit and keep collecting numbers. These findings and other research can help improve best practice and improve the quality of life to those who have a SCI. SCI peers have shared their experiences and the data also shows areas that are so important in the lives of people living with a SCI and those who care for them."

Patient Advisor living with SCI

Other highlights

Patient Advisory Focus Groups support development of Neurosurgery and Vision Quality Indicators

The NRV SCN Scientific Office ensures patient and family advisor representation on all initiatives, steering committees and working groups. In June 2021, the NRV SCN convened two provincial Steering Committees representing multidisciplinary stakeholders in Neurosurgery and Vision. The Scientific Office provided rigorous, detailed environmental scans to complement their expertise on candidate key quality indicators. The Steering Committees met monthly to co-design a modified e-Delphi process to reach consensus on a core set of key quality indicators in each area.

Impact on health and care in Alberta

The NRV SCN continues to build relationships with patients, families, research institutes, academics, clinicians and operational partners to leverage available resources and expertise. Together, they actively collaborate to:

- Co-design care transformation through evidence
- Harness innovation to drive care excellence
- Enhance equitable access to quality care for all in Alberta



Actions and areas of focus

- Understand and improve the patient experience
- Promote a provincial rehabilitation innovation strategy
- Identify quality indicators and performance measures that can support evidence-informed decision-making
- Develop and implement provincial clinical pathways
- Integrate virtual health into service delivery
- Improve care transitions across the lifespan
- Bridge clinical expertise and knowledge across Alberta

NEUROSCIENCES, REHABILITATION AND VISION

Grants and Publications



20

Peer-reviewed Publications

Engagement



30

Workshops & Presentations

Outcomes and Impact

Development & launch of an integrated provincial Post-COVID Rehabilitation Response Framework that supports screening, assessment and patient-specific rehabilitation needs.



\$1.96M

Research Grants



187

Research Members

Ongoing rehabilitation support for patients with Post-COVID syndrome is expected to improve patient outcomes and experience and reduce avoidable ED visits and hospital readmissions.



SURGERY

SENIOR PROVINCIAL DIRECTOR

Jill Robert, BScN, CHE, AHS

CO-SCIENTIFIC DIRECTORS

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University of Calgary

Dr. Rachel Khadaroo, MD, PhD,
University of Alberta

EXECUTIVE DIRECTOR

Tim Baron, MBA, MScPT

RESEARCH SCIENTIST, SURGERY & RESEARCH PRIORITIES & IMPLEMENTATION

Tara Klassen, BSc, PhD

SENIOR MEDICAL DIRECTOR

Dr. Jonathan White, MMed. Ed., MD,
University of Alberta (04 to 12/2021)

INTERIM SENIOR MEDICAL DIRECTOR

Dr. Paul Petrusek MD, MHCM, FRCSCA,
University of Calgary (01 to 12/2022)

ASSISTANT SCIENTIFIC DIRECTOR

Dr. Sanjay Beesoon, MPH, PhD,
University of Alberta

SCN MANAGER

Lesley Barker, RN

KEY PARTNERS

Enhanced Recovery After Surgery
(ERAS) International

National Surgery Quality Improvement
Program (NSQIP)

Major initiatives and achievements, 2021-2022

The Surgery SCN (SSCN), through both its operational arm and its Scientific Office, has been at the forefront of initiating, driving, implementing and evaluating multiple research and innovation projects. Our ultimate goal is to improve timely access to surgery and improve the quality and safety of surgical care for Albertans. Over the past year, the Scientific Office has contributed to a number of programs that reflect these shared provincial priorities.

Alberta Surgical Initiative

The Alberta Surgical Initiative (ASI) is a joint initiative of Alberta Health and AHS to address long surgical wait times through 4 key strategies:

1. Improve the provision of specialist advice to primary care providers before surgery consultation
2. Improve the provision of surgical consultation, including referral and triage
3. Improve the provision of surgery
4. Improve the coordination of pathway development.



Strategies 1, 2 and 4 aim to reduce the time from referral to first surgical consult (known as Wait Time 1), and Strategy 3 aims to decrease the wait time from the surgeon's decision to treat by surgery and the actual surgery (known as Wait Time 2).

Two recent reviews, co-authored by the Surgery SCN leaders, were published in the Journal of Hospital Management and Health Policy discussing approaches implemented in other countries to reduce [Wait Time 1](#) and [Wait Time 2](#) and the evidence of their effectiveness.

To address the long Wait Time 1 issue, a package of interventions has been developed, referred to as the "**Specialty Access Bundle**" (SAB). The bundle consists of an electronic patient referral system, centralized patient referral within each Zone, care pathways for common surgical conditions, new resources for patients to learn about their condition and its treatment, and a service providing surgeon advice to referring providers. The SAB was developed through a partnership between the SSCN, Primary Care, in collaboration with operational leaders and Alberta Health.

In tandem with implementation of the SAB, the SSCN Scientific Office has developed an evaluation framework that includes a SAB logic model, key monitoring measures, and a data matrix to inform decision making and continuous improvement. This work is being led by Dr. Sandy Berzins, SSCN Research Scientist. To date, we have collected, validated and analyzed available baseline data on key reporting measures for the first three specialties implementing FAST (orthopedics, urology and ophthalmology) and worked with researchers in the Physician Learning Program at University of Alberta to adapt an innovative data collection tool, [Sensemaker™](#), to collect near-real-time patient and provider experience.

Supporting equitable access to surgical care with the Rural Surgical and Obstetrical Networks of Alberta

Recognizing the need for equitable and sustainable access to surgical care in the Province and in line with the AHS priority to bring care closer to the community, the SSCN has partnered with the Albert Surgical Initiative (ASI) team; the departments of Family Medicine and Surgery at both the University of Alberta and the University of Calgary; and with the Rural Health Professions Action Plan (RhPAP) to create the Rural Surgical and Obstetrical Networks of Alberta (RSONA).

A white paper on the RSONA will be available in the coming months and will outline six major operational streams: (1) Formalizing a residency program in Enhanced Surgical Skills and Obstetrical Surgical Skills for Rural Family Physicians; (2) Continuing Medical Education; (3) Coaching program; (4) Standardized Privileging Pathway; (5) Continuous Quality Improvement & Research; and (6) Operational & Financial Framework.

Other highlights

Rigorous evaluation of new health technologies and their impact on safety, efficacy, patient outcomes & value

Reinforcing our commitment to use data and evidence to drive decision making, the **Evidence Decision Support Program (EDSP)**, led by Dr. Tara Klassen, performed 51 new health technology intakes, led 5 provincial health technology evaluation trials and authored 3 health technology requests (HTR), 2 evidence packages (HTR-EP) and 3 technology checks (TC). Dr. Klassen also provided her expertise to inform multiple quality improvement, implementation science and change improvement programs.

In addition, 18 presentations were made to a wide range of provincial and national stakeholders involved in surgical innovation, including the AHS Patient Safety Leadership Group (PSLG), Covenant Health Operational Procurement Evaluation Committee (OPEC), Canadian Agency for Drugs and Technologies in Health (CADTH), Coordinated Accessible National (CAN) Health Network, Ontario Quality Health, and BC Health Technology Assessment Committee (BC-HTAC).

Two of the most recent and notable accomplishments by the EDSP are (1) a clinical trial for [a magnetic-based localization system for early-stage breast cancer](#), and (2) [guidance for timing of surgery after COVID-19 infection](#). This work has received significant attention across Alberta and internationally and is an excellent example of applied science and decision support.

Impact on health and care in Alberta

Together with its clinical and research partners, the Surgery SCN continues to advance knowledge and implement practice changes that aim to:

- Increase access to surgical consultation and treatment and reduce wait times for elective surgeries
- Improve the quality and safety of surgical care and provide data to better track surgical demand, utilization and performance
- Support appropriate use of surgical resources, optimize efficiency, and improve coordination and communication across care providers
- Improve outcomes, safety, value and patient/family experience for Albertans who need surgical care

Over the past year, the surgery SCN has made the strategic decision to consolidate surgical quality projects (specifically ERAS, NSQIP and the Safe Surgery Checklist) into one program led by Renee Duckworth, Provincial Manager of Surgical Quality. Several provincial initiatives are currently underway to improve patients' outcomes while improving health system efficiency. Notable examples include:

- Surgical Site Infection – Provincial Learning Collaborative “Working Together across Alberta to Reduce Surgical Site Infections”
- The creation of a Surgical Outcomes Measurement System (SOMS) to align and integrate ERAS and NSQIP protocols and practices and work toward an integrated provincial surgical outcomes management system.

Actions and areas of focus

- Improving access to integrated surgical care from consultation to treatment to transition and recovery, and supporting implementation and evaluation of ASI and strategies to address surgical wait times
- Providing safe, high-quality surgical care, including expanding the use of Enhanced Recovery After Surgery (ERAS), the National Surgical Quality Improvement Program (NSQIP) and Safe Surgery Checklist
- Building a strong surgical community across Alberta
- Expanding use of surgical data, analytics and evidence to guide decisions

SURGERY

Grants and Publications



40

Peer-reviewed Publications



32

Workshops & Presentations

Outcomes and Impact

Alberta study (2021) evaluating provincial implementation of multiple ERAS pathways shows improved system-level performance, including:

- increased guideline adherence
- decreased length of stay
- no difference in hospital readmissions or complications
- an estimated \$34M in savings (2013-2018)

[Read full publication](#)



\$4.4M

Research Grants



50

Research Members

Preliminary data from the magnetic surgical markers trial for early-stage breast cancer patients shows **equivalent or better clinical outcomes & improved patient and clinician experiences** compared to existing approaches



INDIGENOUS WELLNESS CORE

Integrated Provincial Program

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SCIENTIFIC DIRECTOR

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PROGRAM LEAD, INNOVATION & RESEARCH

Kienan Williams, MPH

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Marty Landrie, MSc, RPN

KEY PARTNERS

Indigenous communities
Indigenous organizations
Indigenous Services Canada

AHS Clinical Operations

Primary Care Networks

Alberta Medical Association

Alberta Universities (UA, UC, UL)

Major initiatives and achievements, 2021-2022

The Indigenous Wellness Core (IWC) continues to work to better integrate, coordinate and advance Indigenous health within AHS in alignment with health-related recommendations of the Truth and Reconciliation Commission of Canada. Partnering with Indigenous communities, organizations, health and community stakeholders, health care professionals, researchers, and others throughout the province, the IWC is helping advance and positively impact patient care and health outcomes with Indigenous Peoples. A few examples from 2021-2022 are highlighted below.

Extension for Community Health Outcomes (ECHO+)

Since 2019, the **ECHO+ program** has provided innovative Hepatitis C screening, treatment and specialist care to Indigenous Peoples in their communities. Funded by a Health Innovation Implementation and Spread (HIIS) grant and operating in all five zones, ECHO+ connects a specialist to practitioners that serve Indigenous communities using technology and a hub-and-spoke approach. ECHO+ is underpinned by ongoing community engagement and support from local health providers and community leaders.

In the project's final full year of operating, there have been significant impacts and improvements related to Hepatitis C:

1. Partnership and co-design with healthcare teams within Indigenous communities to tailor and implement the ECHO+ model has increased awareness and access to hepatitis C treatment. Engagement with Indigenous communities increased to 92% (49 out of 53) from 11% (6 out of 53) at project initiation.
2. Hepatitis C patient resources were co-designed with community members. These include an informative, pocket-sized booklet that has been translated into 5 local Indigenous languages.
3. Ongoing co-design of educational events and opportunities with Indigenous stakeholders, collaboration on living experiences stories, inclusion of Indigenous Elders on the advisory council, and collaboration with community organizations.
4. Qualitative methods were utilized to gather feedback on the model and approach through interviews, world café sessions, surveys, and frequent communication with community healthcare teams.
5. The ECHO+ program framework and implementation approach was presented at the 2021 Canadian Liver Meeting and published in the [Canadian Liver Journal \(2022\)](#).

"We have only good things to say about ECHO+. The bi-weekly sessions are very helpful, we learn so much from the other communities and about the disease itself, and the unique history and presentation of each patient so we learn how to navigate it for our patients."

Feedback from ECHO+
community surveys



Enhancing Indigenous patient experience through navigation and cultural supports

The **Four Winds Project** helps Indigenous patients and their families navigate the complexities of the health system and supports them through transitions in their care journey. The project involves an Indigenous Patient Navigation (IPN) model that has been co-designed with Indigenous communities and partners.

The ability to host Steering Committee and Working Group meetings was inhibited by COVID-19; however, Four Winds has since regained momentum and evaluation activities are underway. The evaluation focuses on key informant interviews, a population-based survey, and sharing promising and replicable practices of Indigenous community engagement to effectively partner on reducing Indigenous health inequities.

Cancer prevention and improved health screening for Indigenous Peoples and vulnerable populations

The IWC led the **Indigenous Health Innovation and Cancer Prevention (HICP)** Grant Program, working in partnership with Indigenous communities and organizations to develop and fund 12 community-led cancer prevention and screening projects across the province (totaling nearly \$3.5 million over 3 years).

Through this Grant Program, Indigenous Cancer Screening Pathways for breast, colorectal and cervical cancer were developed, providing Friendship Centre communities with culturally safe, preventative screening practices. Work continues on developing targeted materials based on Indigenous worldviews, communication methods, and understanding; building trusting and reciprocal/sustainable relationships between grantees and healthcare providers; and using Indigenous pedagogy to support education around cancer and chronic disease prevention and screening.

Other highlights

All My Relations: Funding for the Food Rx RCT

A collaboration with colleagues from the University of Calgary, the Food Rx study explores the impact of a financial incentive in helping people with Type 2 diabetes experiencing food insecurity. A subgroup of Indigenous participants and an Indigenous Advisory Board will ensure the study is culturally safe and impacts of the incentive on health and wellbeing are evaluated from the perspective of Indigenous participants, beyond western health measures.

Honouring Life Grant Program

Launched in 2018, this program addresses risk and protective factors and builds community capacity to support Indigenous youth resiliency and suicide prevention through community-based holistic wellness programming. To date, the program has funded 54 urban and rural Indigenous communities and organizations.

Indigenous Addiction & Mental Wellness Grants

A commitment of \$4.9M over two years from Alberta Health will be dedicated to new community-based addiction and mental health and wellness initiatives to increase access to recovery-oriented and culturally-safe addiction and mental health services for Indigenous Peoples and communities throughout Alberta.

Impact on health and care in Alberta



Listening, co-design and active engagement and collaboration are key factors in successfully developing and refining programs and practices to improve Indigenous health outcomes and experiences. Over the past year, this work has included:

- Funding and working with numerous Indigenous communities and organizations to address youth mental health crises and life promotion activities; offering ongoing operational funding
- Improving culturally safe, preventative community-based cancer screening practices for Indigenous Peoples and vulnerable populations
- Implementing new community-based addiction and mental health and wellness initiatives; increasing access to recovery-oriented and culturally-safe addiction and mental health services for Indigenous Peoples and communities
- Ongoing relationship building and maintaining efforts through targeted engagement and knowledge exchange

Actions and areas of focus

- **People:** Building a workforce equipped with the mindset and tools to listen, understand, act, and be so we can support Indigenous health and wellness and advance reconciliation.
- **Processes:** Listening to and understanding the specific priorities and needs of Indigenous communities and developing clear roles, responsibilities and accountabilities to respond to these needs.
- **Wise practices:** Working with Indigenous people and communities to develop and advance culturally routed quality programs, services and policy, and undertake research and evaluation initiatives.
- **Quality outcomes:** Identifying and securing sustainable investments in culturally competent programs and services across AHS; supporting capacity within Indigenous organizations and communities.

INDIGENOUS WELLNESS CORE

Grants and Publications		Engagement		Outcomes and Impact
	3		14	Community-led cancer prevention & screening projects supported across Alberta, resulting screening pathways that incorporate culturally safe practices.
Peer-reviewed Publications		Workshops & Presentations		
	\$0.8M		96	Community-led urban & rural initiatives supported focused on Indigenous youth resiliency & suicide prevention
Research Grants		Research Members		
			54	



PRIMARY HEALTH CARE INTEGRATION NETWORK

Integrated Provincial Program

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ASSISTANT SCIENTIFIC DIRECTOR

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Virtual Patient Engagement Network

Alberta Medical Association

Accelerating Change Transformation Team

Primary Care Network Leadership

Primary Care Network Members

SENIOR MEDICAL DIRECTOR

Dr. Linda Slocombe, MD

ASSOCIATE MEDICAL DIRECTOR

Dr. John Hagens, MD

Major initiatives and achievements, 2021-2022

Over the past year, medical leaders within the Primary Health Care Integration Network (PHCIN) have collaborated extensively with AHS and primary care to increase understanding of key issues impacting integration, at a system level, between primary and specialty care. For example, through the advocacy of PHCIN medical leaders, appreciation and understanding has improved regarding the impact of implementing Connect Care and the Alberta Surgical Initiative (ASI) on primary care providers and their workflows. The PHCIN continues to support AHS in implementing these province-wide initiatives while minimizing any disruptive impact on primary care providers and their teams. The end goal is to enable accelerated and appropriate access to specialists, achieve information continuity, and enhance care continuity.

System Foundations for Integration: Connect Care Implementation

Through 2021-22, the PHCIN and Provincial Program have continued to support to the rollout of AHS' Connect Care initiative, Community Information Integration (CII), Central Patient Attachment Registry (CPAR), enhancements such as eDelivery, and other provincial information systems, that together make up the entire patient record.

This work will enhance information continuity for healthcare providers and patients (e.g., enabling AHS primary care clinics to submit patient panels to CII/CPAR and allowing other healthcare providers to identify when AHS is a patient's primary care provider). In addition, new and more efficient processes have been created that allow AHS to hear and address community providers' concerns and suggestions.

Linking to Specialists and Back – ASI: Provincially Aligned Solutions for Care Pathways and Specialty Advice

Following more than two years of extensive engagement and consultation with diverse stakeholders, a new Provincial Pathways Unit (PPU) will be established and co-led by AHS PHCIN and the Strategic Clinical Networks™. The PPU will be a coordinating hub for the development, integration and management of clinical pathways. It will help implement provincial clinical pathways for providers and patients, starting with pathways used in the patient's medical home that shape demand for specialty care and improve referral processes. The PPU will centralize access to pathways, simplify clinical workflows, and create standards and processes around pathway development, design, maintenance and evaluation.

Equally extensive engagement and consultation was undertaken to design a provincially aligned approach for providing non-urgent telephone advice. The approach leverages existing advice programs, including ConnectMD, Specialist Link, and RAAPID, and will support a coordinated Urban/Rural Model that ensures consistent access to non-urgent telephone advice across Alberta. Planning related to implementation and service standards will begin shortly.

Transitioning from Home-to-Hospital-to-Home (H2H2H): Implementation of Alberta's H2H2H Guideline & the Work of the Patient Transitions Resources Team

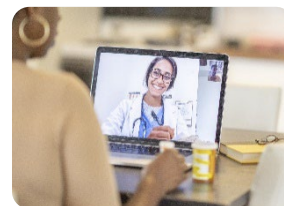
Over the past year, there has been significant collaboration between the Provincial H2H2H Implementation team and zone operations in both primary and acute care to facilitate a coordinated rollout of [Alberta's H2H2H guideline](#). This included working with each zone to establish the governance structure (e.g., H2H2H Provincial Implementation Network, Zone Transitions of Care Committees) and support the Acute Care Bundle Improvement work that will see 14 of the largest AHS acute care sites implement the guideline. H2H2H is one of eight acute care initiatives being implemented in an integrated learning collaborative (ILC). A pilot of the ILC is underway at two sites.

Partnering with patient and family advisors (PFAs) ensured the patient voice was at the heart of the H2H2H guideline. One way this has been achieved is through the formation of the Patient Transitions Resources Team, which includes four PFAs and three PHCIN staff members from across Alberta. This team outlined [recommendations for Alberta's health system leaders to use in implementing the H2H2H guideline](#), co-designed a patient-focused [discharge checklist for COVID-19](#), and developed a [resource to guide patient partnership, engagement and co-design](#).



AHS Virtual Care Evaluation Framework

In 2021 and early 2022, the PHCIN has worked collaboratively with the AHS Virtual Health Program to create the 'AHS Virtual Care Evaluation Framework: A Guide for Programs and Services in AHS.' The framework supports a common vision and understanding within AHS about the goals of virtual care, processes needed for optimal delivery, and desired outcomes. Moving forward, a common evaluation approach will enable providers and managers to compare and share learnings, build organizational wisdom, and guide best practice approaches.



This work was guided by patient representatives to ensure their voices were reflected in the final product. Albertans participated in three patient focus groups, shared insights with the Evaluation Framework Working Group, and participated in Conversation Cafés with AHS providers, managers and patients. Representatives from community organizations serving new Canadians and Albertans who might feel less digitally connected were also interviewed to better understand challenges and barriers to virtual care. Such a broad co-creation process was vital to ensure a diversity of input, experience, and perspectives to identify what is most important to evaluate moving forward.

Other highlights

Reducing the Impact of Financial Strain (RIFS)

The RIFS project is a ground-breaking collaboration between AHS (PPPH, PHCIN, IWC, and Zones), Alberta Medical Association (AMA), communities and their PCNs. It aims to reduce financial strain as a barrier to health, particularly in areas of cancer, chronic-disease-management, and prevention. [Learn more](#)

Over the past year, four community teams and their PCNs have tested ways this could be addressed. [Patient stories](#) have been shared on a [new website](#) to help care teams learn the impact financial strain has on patients and how to create safe spaces for open, honest dialogue and upstream action with community partners, patients and their care teams.

Work has also focused on developing a [Population Health Needs Framework](#) and accompanying [User's Guide](#). A task force with more than 100 community participants shaped the objectives within the framework. It also includes a section on how to focus on health equity when planning services for Albertans. This framework is unique in Canada and applies across the whole continuum of care.



"I encourage more healthcare providers to look at the whole person and consider factors that affect a patient's health beyond what they see in the exam room."

Sandra Campbell, Patient Advisor, RIFS Project





Impact on health and care in Alberta

- Improved transitions, especially from home to hospital and back to home
- Better coordinated, faster access to specialist care when appropriate, informed by clinical pathways and guidelines
- Patients, families, caregivers and community members more actively engaged with care providers and other partners to co-create innovative solutions for care coordination challenges
- Improved informational and care continuity

Actions and areas of focus

- Transitions from Home to Hospital to Home (H2H2H and collaboration with Cancer Care Alberta)
- Linking to specialists and back (ASI)
- Keeping care in the community
- Reducing the impact of financial strain
- Supporting a common vision, processes and evaluation framework for virtual care
- System foundations for integration (Connect Care, CII, CPAR)

PRIMARY HEALTH CARE INTEGRATION NETWORK

Grants and Publications		Engagement		Outcomes and Impact
	4		11	Co-designed digital tools , guidance documents , and patient and provider resources that aim to: <ul style="list-style-type: none">✓ improve patient transitions and continuity of care and information✓ provincially align care practice and access to non-urgent telephone advice services✓ enhance virtual care use evaluation✓ reduce the impact of financial strain on health in Alberta✓ improve focus on health equity
	\$2.4M		115	
Peer-reviewed Publications		Workshops & Presentations		
Research Grants		Research Members		



PROVINCIAL ADDICTION & MENTAL HEALTH

Integrated Provincial Program

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Addiction & Mental Health Division, Alberta Health
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ASSISTANT SCIENTIFIC DIRECTOR

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University of Alberta, University of Calgary

Major initiatives and achievements, 2021-2022

Initiation of Recovery-Oriented Systems of Care Implementation

Provincial Addiction and Mental Health (PAMH) engages AHS Operational Zone leadership, physicians, front-line health care workers, community-based service providers, researchers, government ministries and departments, and many other partners to address shared priorities that enhance prevention, wellness, treatment, and recovery for Albertans with addiction and mental health concerns. The focus on a recovery-oriented system of care (ROSC) ensures that there is a coordinated network of services across the continuum of care to support Albertans with addiction and mental health needs.

Provincial Addiction and Mental Health has supported several projects and initiatives linked to ROSC, including:

Concept Analysis of Recovery from Substance Use: This was a student-led project to investigate, synthesize, and clarify definitions of recovery, with the aim to integrate the concept into a useful definition to be applied to substance use research and policy. This work has been presented to provincial stakeholders in AMH, and the publication is currently under review.

Expanding Opioid Dependency Program: AHS Opioid Dependency Programs (ODP) clinics have served more than 800 clients so far this year by providing medical outpatient treatment to clients dependent on opioids. Enhanced psychosocial supports are being offered in multiple zones.

Medical Detox and Residential Addiction Treatment Expansion (4,000 Spaces): ROSC has been enhanced through increased access to treatment spaces. 8,565 annual spaces have been established across the province for medical and social detoxification, residential addiction treatment, and residential recovery spaces. Investment also established new standard reporting metrics, contract expectations, and bed rates. The Residential Addiction Treatment Allowance (RATA) user fee was eliminated for Albertans seeking care.

Cannabis Use and Concern among Clients Seeking Substance Misuse Treatment: Administrative data from 2012 to 2018 were analyzed to provide an overview of demographics, healthcare utilization, and mental health co-morbidities in individuals accessing treatment for substance misuse in Alberta prior to the legalization of cannabis. This dataset has created a baseline to allow for research on the impact of legalization. This work has also been expanded into a new national research partnership, and has been leveraged to secure additional funding. [Learn more](#)

Domestic Abuse Response Team (DART) and Virtual Anti-Violence Handbook

The DART program provides around-the-clock access to specialized domestic violence services, including crisis intervention, risk assessments, safety planning, and connections to follow-up supports (e.g., housing, legal aid, counselling). During the COVID-19 pandemic, the need for supports for individuals experiencing or at-risk for domestic violence increased alongside an abrupt shift to virtual delivery of services.



In 2021, the DART program expanded to 41 AHS/Covenant Health facilities (all five zones), increasing access to free, around-the-clock specialized support for Albertans experiencing domestic violence. Over the past year, DART received 144 referrals and plans to expand further to additional communities.

Dr. Stephanie Montesanti, with financial support from the PAMH Scientific Office, completed a series of virtual stakeholder dialogues with representatives from health, social care, community, justice, government, and people with lived experience to discuss: 1) successful virtual care interventions; 2) opportunities and challenges in delivering these interventions; 3) how to narrow the digital divide for providers and clients; and 4) key considerations for the implementation of virtual care solutions that are feasible and acceptable to domestic violence and sexual assault clients. These discussions led to the development of a [handbook for virtual delivery of domestic violence and sexual violence interventions](#).

Other highlights

ELITE Internship Program

The Experiential Learning in Innovation, Technology, and Entrepreneurship (ELITE) Program for Black Youth is an internship run through the University of Alberta and matches Black students with host organizations to develop hands-on skills in science, technology, engineering, and mathematics.

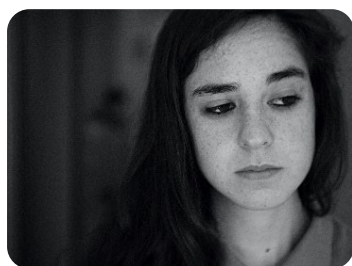
Two ELITE interns were hosted by PAMH and learned qualitative analysis skills as they worked on the eMental Health project. They contributed to ongoing analysis to determine how outcomes can be improved for an online platform that supports youth mental health.

This project has emphasized issues of equity, diversity, and inclusion, and has explicitly focused on highlighting youth voices from a diverse range of perspectives, while participation in the internship program has worked towards increasing diversity in research and in AHS.

Impact on health and care in Alberta

PAMH supports many facets of addiction and mental health care to positively impact health outcomes, increase access to addiction and mental health services, and address capacity through innovation and collaboration with health and community partners. For example:

- 158 physicians completed CanREACH training in the past year, learning to identify and treat pediatric mental health conditions in the community
- 107 new Psychosocial First Aid trainers were trained in the past year
- PAMH was actively involved in over \$3 million of grant-funded research



Actions and areas of focus

- Expand community-based and home care options in the most appropriate setting
- Improve sustainability and integration of addiction and mental healthcare in communities and across the service continuum
- Leverage technology and innovation to improve patient and family centred care
- Focus on health promotion through increased prevention of disease and injury

PROVINCIAL ADDICTION AND MENTAL HEALTH

Grants and Publications



42

Peer-reviewed
Publications

Engagement



12

Workshops &
Presentations

Outcomes and Impact

430 Alberta physicians have been trained to identify and treat pediatric mental health conditions in the community, **increasing system capacity for families seeking mental health support**



\$3.0M

Research Grants



253

Research members

Expansion of the DART program & residential addiction treatment and detox, **increasing access and system capacity for families seeking domestic violence services and medical detox/addiction support**

www.ahs.ca/amhscn



PROVINCIAL POPULATION & PUBLIC HEALTH

Integrated Provincial Program

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AHS Clinical Operations

Primary Care Networks

Alberta Medical Association

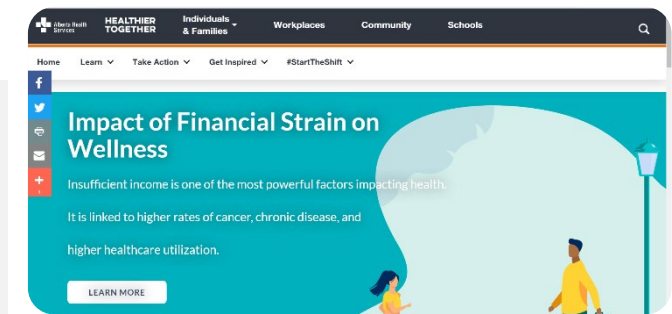
Alberta Universities (UA, UC, UL)

Major initiatives and achievements, 2021-2022

Over the past year, Provincial Population and Public Health (PPPH) has supported Alberta's response to the COVID-19 pandemic while continuing to advance knowledge about the impact of post-COVID conditions and of financial strain, and supporting programs and evidence-informed health system improvements focused on population and public health.

Reducing the impact of financial strain (RIFS) and other social determinants of health

Building on foundational work complete in the previous fiscal year, the RIFS team developed and launched a [website](#) that information and resources for healthcare providers, communities, patients and families that can support organizations and primary care providers take action in their own community. The website includes stories to inspire change and action. They include the voice of Albertans who have experienced financial strain and examples of approaches health care providers and communities have taken, working together to address these challenges.



The information and resources shared on this site are designed to improve understanding of how to screen for financial strain and other social determinants of health (SDoH) in primary care. Originally a three-year project, RIFS was extended to September 2021 due to pandemic-related delays. RIFS is a partnership between AHS Provincial Primary Health Care Integration Network, Provincial Population and Public Health (PPPH), the Alberta Medical Association, AHS Zones, Primary Care Networks (PCNs) and clinics, and local communities. [Learn more](#)

Enhanced cancer and chronic disease prevention and screening: ASAP+ & strategies to create health equity

PPPH has led and supported several initiatives that focus on cancer and chronic disease prevention and increasing access to screening. For example:

Alberta Screening and Prevention Plus (ASAP+): PPPH's Cancer Prevention and Screening Innovation team has collaborated with the Alberta Medical Association (AMA) to develop a Change Package and series of training modules for primary care providers that guide screening and brief interventions for modifiable risk factors of cancer and chronic disease (such as smoking, alcohol misuse, physical inactivity and insufficient vegetable and fruit intake). These materials are available to primary care providers through the AMA Accelerating Change Transformation Team (ACTT) website: [Alberta Screening and Prevention Plus \(ASAP+\)](#).

Creating Health Equity in Cancer Screening (CHECS) Project: Data from the Calgary Zone shows individuals living in the East and Northeast parts of Calgary experience higher material deprivation and lower breast, cervical and colorectal cancer screening rates. To address inequities in cancer screening in these areas, the CHECS team engaged with community members and health workers to better understand reasons and motivations for screening for cancer. Results of the engagement informed the co-design of an outreach strategy aimed at increasing cancer screening awareness. A series of 7 animated cancer screening videos were developed, which have been translated into 5 languages (Arabic, Punjabi, Urdu, Mandarin, Tigrinya) plus English (www.screeningforlife.ca). Grant funding for this initiative was provided by the Canadian Partnership Against Cancer (CPAC).

Improved Access to Colorectal Cancer Screening via Online Ordering System for Fecal Immunochemical Test (FIT): Beginning January 2022, eligible Albertans (aged 50 to 74) can order a free FIT kit online at www.screeningforlife.ca (or by calling AHS Screening Programs) and have it mailed directly to them. FIT is the recommended colorectal cancer (CRC) screening test in Alberta for individuals aged 50 to 74 who are of average risk.

This initiative, launched by the Alberta Colorectal Cancer Screening Program and AHS aims to reduce barriers and improve access to colorectal cancer screening for Albertans. This is especially important for those living in rural and remote communities who do not have a primary healthcare provider, and those with significant travel distances to access care and to pick up a FIT kit at a lab. Since the launch of the initiative, more than 1,300 FIT kits have been mailed to Albertans. Grant funding for this initiative was provided by the Canadian Partnership Against Cancer (CPAC).

Partnering with Rural Communities: PPPH has been working with rural communities throughout Alberta, developing local coalitions to promote health and prevent cancer and chronic diseases. Participating communities follow a program called the Alberta Healthy Community Approach that involves stakeholder engagement; understanding their community; prioritization and planning; implementation, evaluation, and ongoing improvement. Information to help build healthy communities, plan local initiatives, links to community health profiles and a population health dashboard are available on [HealthierTogether.ca](https://healthiertogether.ca).

Understanding the early impact of Post-COVID Conditions in Alberta

Senior scientists with PPPH co-chaired and contributed to a Data and Reporting Working Group tasked with evaluating the potential scope and impact of post-COVID conditions ("Long COVID") in Alberta. The Working Group, part of the Emergency Coordination Centre's Post-COVID Condition Task Force, compiled information from early research studies as well as primary analyses of relevant data, compiling a report outlining (1) characteristics of post-COVID conditions, (2) patient pathways to information and care, and (3) health system impacts of COVID-19. The report also identified current data limitations and made recommendations for future reporting. [Full report](#)

Other highlights

Translating knowledge and evidence into practice that optimizes oral health and oral health equity

AHS' Provincial Oral Health Office (POHO), in collaboration with partners internal and external to AHS, conducts research and surveillance projects to better understand Albertans' oral health needs and focuses on translating knowledge gained by research into actions to improve oral health and oral health equity.

In 2021-22, the POHO published three studies examining dental public health issues in Alberta. Topics include:

- [provision of dental care during the COVID-19 pandemic](#) and effects of social distancing restrictions on access to care for low-income families
- [impact of fluoridation cessation on children's dental health](#)
- [fluoride concentrations at water treatment facilities and other endpoints](#)

These studies provide valuable insight about the oral health status of Albertans and evidence to inform public policy decisions in social, economic, and environmental sectors.

Impact on health and care in Alberta

PPPH continues to advance population and public health outcomes across Alberta. Their work over the past fiscal year has:

- Supported Alberta's emergency response, public health measures, data analysis and surveillance throughout the COVID-19 pandemic
- Helped expand access to screening for cancer, chronic disease and financial strain in all communities, with particular focus on addressing the needs of equity-deserving groups
- Improved awareness of underlying social needs, supports and coordination by primary care clinicians and community partners
- Fostered positive relationships and connections with patients, families, primary care, community partners and other stakeholders to support ongoing collaboration

PROVINCIAL POPULATION AND PUBLIC HEALTH

Grants and Publications



18

Peer-reviewed Publications

Engagement



14

Workshops & Presentations

Outcomes and Impact

Co-designed & launched knowledge translation tools that support screening, prevention, and community action

- ✓ 3 web sites (RIFS, ScreeningforLife.ca, HealthierTogether.ca)
- ✓ training modules for primary care providers to support cancer prevention
- ✓ digital stories and videos
- ✓ online ordering of FIT kits
- ✓ evidence reviews (oral health, Long COVID)



\$6.7M

Research Grants



PROVINCIAL SENIORS HEALTH & CONTINUING CARE

Integrated Provincial Program

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Reverdi Darda, RN, BSCN, CHE,
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Major initiatives and achievements, 2021-2022

The former Seniors Health Strategic Clinical Network inclusive of the Scientific Office is integrated directly within the Provincial Seniors Health and Continuing Care (PSHCC) integrated provincial program. PSHCC works with the zones, government and other organizations to engage and empower seniors health and continuing care community through planning and policy in the province. We use research and evidence to inform the innovation and implementation planning and actions undertaken by our partners. We translate government priorities, and assist and facilitate in the implementation of provincial strategic initiatives to support Albertans.

Meeting evidence and decision-making needs during the COVID-19 pandemic



The continuation of the coronavirus pandemic disproportionately affected older Albertans. The age groups with highest proportion of individuals hospitalized or dying from coronavirus were those 65 years of age and older. Older Albertans residing in continuing care facilities were affected by visitation restrictions and outbreaks, while disruptions to services and support across health and social care provision affected older Albertans and their care partners. The impact of isolation and loss of connectedness became apparent as time progressed.

PSHCC supported the pandemic response with timely evidence generation and decision-making. We revised and updated the evidence on strategies to address acute care length of stay and alternative level of care days. We led the development of guidelines to better enable long-term care staff to provide safe and resident-centred care within the restrictions of a pandemic outbreak at their site and in compliance with public health orders. Our leaders continued to play critical roles in the province-wide pandemic response, conducting rapid evidence reviews of COVID-19 in care homes, examining the efficacy of interventions, and exploring the extent to which AHS had implemented these according to continuing care action plans.

Guidance provided by PSHCC supported the care of older Albertans, including many most at risk of severe outcomes from COVID-19. They also supported provincial decision making and information sharing with health and community partners, including AHS' Emergency Coordination Centre, site and facility operators, and staff at continuing care sites across Alberta.

Healthy aging in Alberta: Measuring quality and what matters to older adults

Following an exhaustive systematic review of disease-specific and generic quality indicators (QI) relevant to older adults, the SO has engaged with health and social care context experts in a Delphi exercise to prioritize generic QI to inform PSHCC QI reporting of its activities. These QI will also have relevance across AHS when proposing development of new, or revised healthcare services.

The Scientific Office has also embarked upon a parallel project to gain the views of older Albertans. PSHCC has partnered with the Imagine Citizens Network and the University of Alberta to hear from older adults and understand their perspectives on priorities in healthcare and the type of quality indicators expected from healthcare services for older adults. This work adds a patient and end user perspective to the selection of measures that PSHCC may use to evaluate its work.

Our goal is to identify measures that will inform strategic planning and drive improvements in health, well-being, and independence and that will have significance to older adults in Alberta. Over the past year, Albertans, 65+ or older, participated in individual interviews and guided group conversations to share experiences as older adults (or as the care partner of an older adult) and discuss what is critical to living and aging well and to synthesize a prioritized list of quality outcome indicators for older adults that resonate with the groups.



"It's important to always involve people who you are designing the service for, and not in a token way. It's good to see this happening."

70+ Essential Care Partner

Other highlights

Social determinants of health & aging in Alberta

Following the successful James Lind Alliance work in prioritizing unmet healthcare research questions from the perspective of older adults, the PSHCC Scientific Office has embarked on work to gain older adults' views on social determinants of health that either facilitate or impede healthy aging in Alberta. The work includes an initial survey, followed by a combination of semi-structured interviews and focus groups, and a software-based Delphi prioritization exercise. Data collection is underway.

Results will feed into and support the province's response to the [Alberta Health's Facility-based Continuing Care Review](#), in which the means to allow people to remain in the location of their choice for as long as possible remains a key objective. The voices and perspectives of older adults is essential to ensure patient- and family-centred solutions. This project will be able to report in December 2022.

Impact on health and care in Alberta

As we organize into an integrated team, leveraging the strengths of each group, we continue our work together to improve health outcomes and healthcare for older Albertans and continuing care clients. Over the past year, this work has contributed to:

- Evidence-informed decisions on how to prepare the health system to meet the needs of Albertans with and without COVID-19
- Working with leaders and staff in long term care, designated supportive living and acute care to implement targeted quality improvement interventions
- Supporting communities to strengthen their readiness to support older Albertans with dementia and their family caregivers



Actions and areas of focus

- Mobilization of research in end-user identified areas of priority for seniors' health
- Expansion of elder-friendly care practices in acute care settings
- Supporting Albertans living with dementia and their caregivers
- Focus on end user involvement in all activities

PROVINCIAL SENIORS HEALTH & CONTINUING CARE

Grants and Publications



6

Peer-reviewed Publications

Engagement



3

Workshops & Presentations

Outcomes and Impact

Supported provincial engagement & comprehensive reviews led by Alberta Health, including:

- ✓ Facility-based Continuing Care Review
- ✓ Home Care Review
- ✓ Palliative Care



\$1.0M

Research Grants



112

Research members

These reviews focus on transforming, modernizing & optimizing services to improve quality, choice and access to care for Alberta seniors

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