Bone and Joint Health
Strategic Clinical Network™

From Illness to Wellness

Transformational Road Map 2020-2025

Alberta Health Services
Inspiring solutions. Together.

Bone & Joint Health
Strategic Clinical
Network™

September 2020

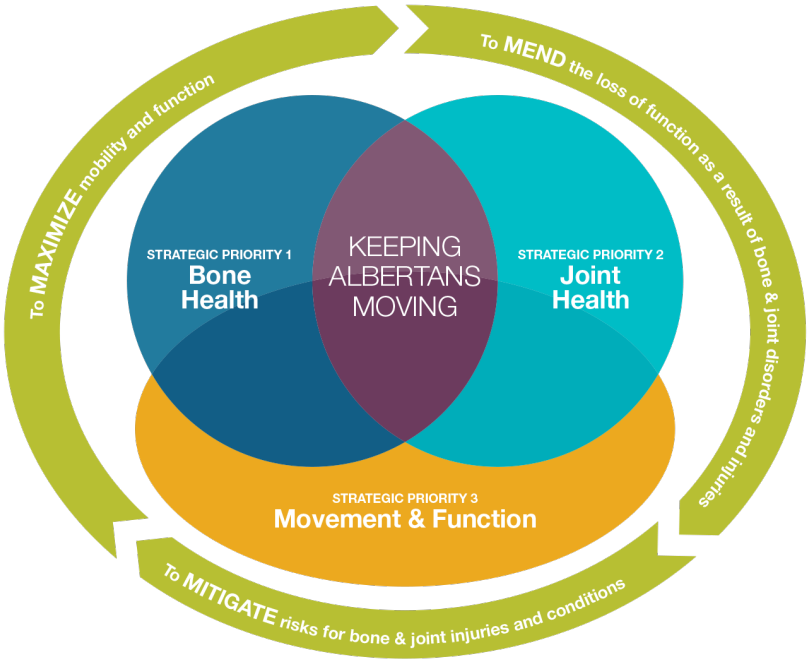
BONE & JOINT HEALTH STRATEGIC CLINICAL NETWORK (BJH SCN)

Summary: Transformational Road Map 2020-2025

From illness to wellness – keeping Albertans moving across their lifespan

AHS Vision	Healthy Albertans. Healthy Communities. Together.
BJH SCN Vision	Keeping Albertans moving.
BJH SCN Mission	To create a person-centred, integrated system to optimize bone and joint health of Albertans by working together with our partners.

Bone & Joint Health SCN Guiding Principles



The Bone & Joint Health SCN 2020–2025 Roadmap will focus on three priority areas to keep Albertans moving. The actions within each priority area will strive to **MAXIMIZE** mobility and function, to **MEND** the loss of function as a result of bone and joint disorders and injuries, and to **MITIGATE** risks for bone and joint injuries and conditions. We will align our existing work with these three areas in addition to launching new initiatives.

www.ahs.ca/scn

Alberta Health Services Inspiring solutions. Together.
Bone & Joint Health Strategic Clinical Network™

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Welcome

A Word from the Bone and Joint Health SCN Leadership

Greetings,

As we write this letter, we are acutely aware of the dynamic nature of planning related initiatives. In a few short months, our world was dramatically impacted by the COVID-19 pandemic, with shifts no one had planned for nor anticipated. As leaders of the BJH SCN, we continually seek input into whether our current approaches and strategies are relevant to and in line with addressing the most pressing needs of Albertans with respect to bone and joint health. Through our efforts and those of our network to remain connected to advances in all areas of the health care continuum, we are constantly reminded of how innovations in the delivery of care force us to consider how to incorporate novel approaches into our broad framework. While the speed of development and introduction of new procedures and techniques create challenges in terms of articulating the current state of service delivery at a given point in time, they are part of the essential processes that we rely on to improve quality, incent innovation, facilitate change and sustain best practices into standard care.

This rapid change cycle assures us that this current plan, intended to articulate a five year vision, will require regular updates to revisit both the priorities as well as the best paths to assist us in our vision of **Keeping Albertans Moving**.

We are extremely dependent on and grateful for the numerous contributors to supporting our vision, including formal and informal members of our network, committees and work groups.

Dr. Jason Werle
Senior
Medical Director

Jill Robert
Senior
Provincial Director

Mel Slomp
Executive
Director

Dave Hart
Scientific
Director

Ania Kania-Richmond
Assistant
Scientific Director

Message from Our Partners

A person living with chronic pain needs to be educated with strategies to better manage their health condition. From what I have experienced, as a patient, the Bone and Joint Health Strategic Clinical Network is definitely working collaboratively in the correct direction. Their team approach is to send patients to appropriate health care providers to receive suitable care. They strive to have accurate communication among the various health care providers so that there is a united exchange of information. These clinics should be easy to access, located in community settings and that they should be the initial source for patients to be assessed for their bone and joint conditions. Going to a clinic, of this type, should lessen costly health care expenses. Family doctors are sometimes pressed by patients to get an MRI and see a specialist or surgeon. Going to a clinic that specializes with bone and joint problems will allow for better long term results and quicker recovery.

In closing, I hope that, in the future, a variety of educational resources will be available for patient usage. Also, these bone and joint assessment clinics need to be established throughout Alberta to provide patients with consistent health services.

Bill Horpyniuk
Patient Advisor

The collaborative, supportive and energetic relationship we have built with the BJH SCN has been key to overcoming numerous barriers in providing creative and sustainable improvements in bone and joint care. Many new challenges lay ahead for the Alberta health system but it is through consolidated efforts and engagement that Albertans will realize innovation in health. To those who have contributed over the years, thank you for your support and expertise across the numerous projects we have partnered with the BJH SCN on, and we promise to continue to move forward with our collective goal of improved bone and joint health. By building on our successes and learnings, we're excited for the coming journey and what the next 5 years holds for our community.

ALBERTA BONE & JOINT HEALTH INSTITUTE

Introduction

To learn more about Strategic Clinical Networks, please visit **www.ahs.ca/scn**

The Bones, joints, tendons, ligaments, muscles, and cartilage that comprise our musculoskeletal system are continuously interacting to facilitate our movements, without our conscious awareness. Even seemingly simple tasks, such as climbing a set of stairs, recruit a remarkably complex biomechanical system. It's not until something goes wrong with that system that we sit up and take notice. What was once routine – getting groceries, playing with a child, shuffling a deck of cards – can feel insurmountable.

An Albertan seeks relief from bone and joint conditions at a doctor's office every 60 seconds.[1] These conditions are the leading cause of severe long-term pain and physical disability.[2] They are costly to the Canadian economy[3] and there is growing recognition that innovative models of care are needed across the musculoskeletal (MSK) care continuum, including a greater emphasis on prevention efforts. Whether it's arthritis, joint replacement, soft-tissue injury, bone fractures or chronic pain, the **Bone and Joint Health Strategic Clinical Network (BJH SCN)** is on a mission to keep Albertans moving. This Transformational Roadmap (TRM) serves as the strategic plan for the BJH SCN and will guide our work for the next five years.

To address current gaps and to withstand the tsunami of increased bone and joint related health care demand, focus is increasingly being turned "upstream", to aspects of care that are focused on effective symptoms management at earlier stages of chronic diseases and prevention. Our five year TRM focuses on three interrelated priorities: **BONE HEALTH**, **JOINT HEALTH** and **MOVEMENT AND FUNCTION**. The actions within each priority area will strive to **MAXIMIZE** mobility and function, to **MEND** the loss of function as a result of bone and joint disorders and injuries, and to **MITIGATE** risks for bone and joint injuries and conditions.

To achieve these ambitious goals, we require full engagement and contributions from all our stakeholders. From researchers to administrators, from policy makers to change management experts, from patients to providers. All these and more stakeholders are needed to generate and test ideas, to critically appraise evidence, to bring a spirit of innovation and creativity and to keep Albertans at the centre of our efforts to achieve our lofty and laudable vision of **Keeping Albertans Moving**.

About the Bone and Joint Health Strategic Clinical Network

AHS Vision: Healthy Albertans. Healthy Communities. Together.

Our Vision: Keeping Albertans moving.

Our Mission: To create a person-centred, integrated system to optimize bone and joint health of Albertans by working together with our partners.

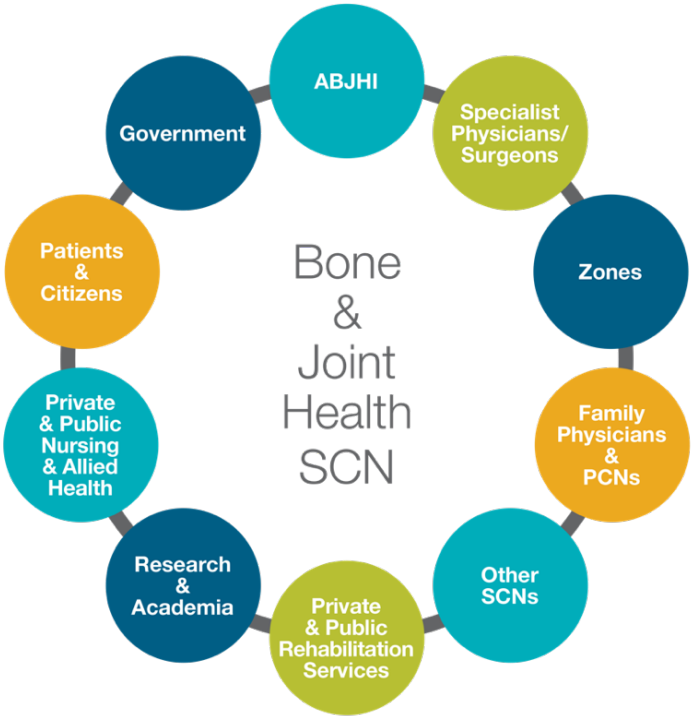
The Bone and Joint Health SCN was one of the first six provincial networks launched in June 2012. It is endorsed by AHS to innovate and advance the provision of services along the entire patient journey in order to improve the quality of MSK care across the six quality dimensions identified by the Health Quality Council of Alberta (accessibility, acceptability, appropriateness, safety, effectiveness, and efficiency.

Leadership Team
The Bone and Joint Health SCN is led by a small team, comprised of a leadership dyad with a Senior Provincial Director and Senior Medical Director, an Executive Director, a Manager, a Senior Consultant, several project and administrative support staff. The Scientific Office of the Bone and Joint Health SCN is led by a Scientific Director and Assistant Scientific Director. It serves as a networking hub to the broader research and academic community so that grant opportunities, student support, guidance on innovation in MSK care, and information exchange and collaboration between researchers is fostered.

The Core Committee
To ensure that the various perspectives of the multiple stakeholders inform our work, the SCN works closely with its Core Committee. It is tasked with setting priorities, directs plans, provides consultation on important issues, serves as a liaison/conduit between their broader communities and stimulates activities of the network. The Core Committee includes leaders from zones, provincial services, front-line clinicians, researchers, government and communities, and patients and their families.

The Bone and Joint Health SCN has a wider membership structure, where front-line staff (from across care settings, facilities, and community groups) contribute as members of the network. Some participate in SCN working groups to provide input and actively participate in implementation and spread of quality improvements; others offer input in less formal ways.

Our Community



We know we cannot do it alone, and we are stronger together, that is why we work very closely with our community, the broad network of Bone and Joint Health stakeholders, to **help keep Albertan's moving**. Our Community is large and diverse. We work in collaboration with a number of partners across the province.

We use the expertise and experience of patients, families, care providers, researchers and administrators to plan for and to innovate healthcare services in order to improve bone and joint health of Albertans. An important strategic partner is the Alberta Bone and Joint Health Institute (ABJHI). The BJH SCN works closely with the ABJHI to strategically plan for, collect, analyze and interpret key health information to assess health needs, inform decision making and support research. The ABJHI also provides program implementation support and helps us determine the overall quality of health services across Alberta. ABJHI has been an instrumental collaborator in the implementation and operationalization of two BJH SCN led initiatives (described on page 13).

Patients, their family representatives and communities are engaged in the SCN as experts and partners with a strong voice to help guide planning and implementation of SCN quality improvement initiatives to support Albertans across all stages of MSK health and function.

"**Arthritis is the leading cause of joint replacement surgeries.** Delays in assessment and surgery cause too many Albertans to live with unnecessary pain and restricted mobility, negatively impacting quality of life. Improving wait times and providing better access to pre- and post-surgical care is a top priority for the Arthritis Society. Access to trusted, reliable information and education is also critical to helping Albertans manage their arthritis. We support our partner BJH SCN's 5-year strategic plan, and through our combined efforts, we can transform and improve health outcomes for Albertans living with arthritis, reducing the devastating consequences of this condition."

SUZAN VALENTA, EXECUTIVE DIRECTOR, PRAIRIE/NUNAVUT/NWT, ARTHRITIS SOCIETY

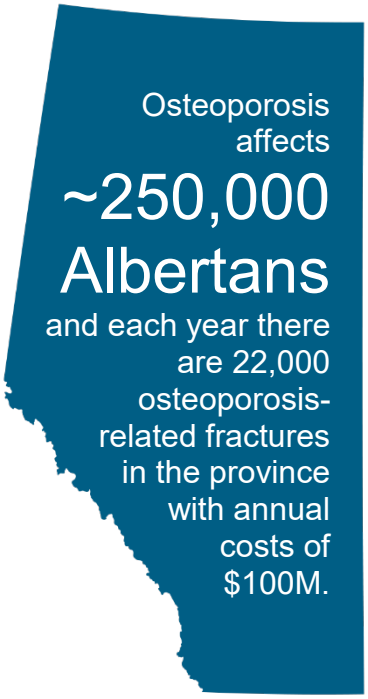
Current State

Bone and joint conditions are the leading cause of severe long-term pain and physical disability.[2] They are costly to the Canadian economy.[3] Population growth, aging, sedentary lifestyles and rapidly rising rates of obesity all contribute to bone and joint health dysfunction and rising demand for bone and joint healthcare services. This rising demand for resource-constrained health services together with the long-term chronic nature of most bone and joint conditions has brought needed attention to activities focused on improving prevention and treatment. These factors have also exerted considerable pressure for more research and faster knowledge translation from research to clinical implementation. However, delivery of MSK care in the various stages of disease progression is a shared responsibility by the healthcare system, both in the public and private domains, and a variety of health care professionals, researchers, policy makers, and most importantly, the patients. Although aiming towards the same objectives, each has their own unique set of guiding principles, pressure points and measures of success. This fragmentation in delivery slows the practical application of new knowledge.

There are many opportunities for improvement, integration and innovation:

Osteoporosis:

- A chronic, progressive condition associated with low trauma fragility fractures that have substantial negative impacts including loss of independence, nursing home admission, and death.[4-9]
- Osteoporosis affects ~250,000 Albertans and each year there are 22,000 osteoporosis-related fractures in the province with annual costs of $100M.[4;10-12]
- Fractures beget more fractures, patients with osteoporosis and a fracture have a 20-fold increased risk of another fracture compared to those with normal bone health and no prior fracture.[12-20]
- Evidence indicates that fewer than 20% of hip fracture patients currently undergo diagnosis or adequate treatment for osteoporosis, and 80% of patients with a history of osteoporosis are not provided with therapeutic interventions.[15-22]
- Fragility fractures are preventable but unaddressed, we expect the burden of fragility fractures to increase with the aged, at-risk demographic, expected to be 1-in-5 Albertans by 2046.



Low Back Pain:

- The lifetime prevalence of back pain among adults is 85% in Canada[23] and it is ranked as the #1 disability in the world.
- In Alberta there were 445,000 annual visits to primary care for back pain in 2017-18 at a cost of $27M, plus 50,000 visits to emergency departments ($50M) and requisitions for 25,000 lumbar spine MRIs ($16M).

In Alberta there were
445,000
annual visits to primary care for back pain in 2017-18

- Furthermore, provincial statistics indicate that 54% of requisitions for lumbar spine MRI were inappropriate[24] and 97% of the 50,000 emergency room visits annually for LBP did not result in hospital admission.[25]
- A large majority of the 282,000 Albertans presenting annually to family physicians and specialists for LBP[26] wait in surgical queues for evaluation despite evidence that approximately 95% of surgical referrals from primary care do not require surgery. The result is wait times of up to two years for surgical evaluation, causing delayed initiation of conservative therapy for non-surgical cases and increased risk of pain chronicity and opioid use disorders.[27-29]

Sport Injury:

- In Alberta, 4 youth are hospitalized for an injury every day, and an injured youth visits an emergency room (ER) every 10 minutes.[30] One in 3 youth will seek medical attention for a Sport or Recreational injury annually. Lower extremity injuries account for >60% of this burden (>60% ankle/knee joint).[31,32]
- Youth sustaining a knee injury have a 10-fold greater risk of developing knee osteoarthritis (OA) (50% develop post-traumatic OA) compared with uninjured youth.[33-35]

Osteoarthritis (OA):

- Affects 1 in 8 Canadians (> 400,000 Albertans) and this number is expected to double within the next generation.[3]
- Following diagnosis of OA, nearly 40% of Albertans will self-manage their disease (in partnership with their primary care team) for the rest of their lives.[36] The other 60% will spend, on average, 9 years self-managing their disease before receiving a specialist consultation.[36-38]
- Of the entire population with OA, fewer than 15% will eventually proceed to arthroplasty surgery, and yet, at this time, many view that as the ultimate end-goal of their journey.[36]

- Even the most well-informed and engaged patients expressed difficulty in accessing care, highlighting challenges with communicating the severity of their symptoms and encountering “locked gates” along their journey.[39-41]

Of the entire population with OA,
fewer than 15%
will eventually proceed to arthroplasty surgery

Inflammatory Arthritis (IA):

- Can affect all ages and, if not treated appropriately, leads to joint pain, irreversible joint damage, profound disability, and can shorten the life of the individual with the illness.
- Rheumatoid Arthritis (RA) is the most common form of IA. Close to 40,000 people in Alberta are living with RA[42,43] and its prevalence is expected to rise by 89 per cent by 2030.[44]
- Timely access to rheumatologists and equitable access to care remain a challenge, especially in Alberta where patients living in rural or remote areas may need to travel long distances for care from specialists who are clustered in urban areas.[45]
- The combined Canadian annual economic burden of osteoarthritis and rheumatoid arthritis was approximately $33 billion in 2010.[2] This suggests the annual economic burden was about $4.6 billion in Alberta a decade ago.

Technology:

- Innovative technology and virtual care opportunities exist but are not in widespread or consistent use e.g. remote assessment research through the University of Alberta Faculty of Rehabilitation is exploring how video technology, when paired with visual and sensory receptors, can assess MSK injuries and conditions, as well as guide clinical interventions. This innovative practice could dramatically improve access for residents in rural and remote areas of the province. In addition, Albertans with mobility challenges, such as long term care residents, might benefit from this technology for a broad range of bone and joint health related conditions.
- The tech market is saturated with fitness and mobility trackers, diet and nutrition calculators, chronic condition monitoring and related apps. Evidence of their efficacy is limited. How can Albertans find the products that best support their needs?

Self-Management:

- Patients have expressed their desire for reliable sources of information to guide their decision making and self-management of acute as well as chronic conditions.
- Addressing individual mental and psychological characteristics are important:
  - What are the best ways to self-motivate?
  - How do acute injuries and long term conditions affect mood?
  - How do bone and joint health practitioners collaborate with their mental health colleagues to increasingly provide a whole person, whole health approach?

Pain Management:

- Many musculoskeletal conditions are chronic and are characterized by long-term pain and disability.
- The Alberta Pain Strategy[46] provides an opportunity for collective action to improve and standardize both non-pharmacological and appropriate pharmacological approaches to pain and discomfort that many Albertans with bone and joint health conditions experience.

These are challenging areas with no single, straightforward solution. They require ongoing collaboration, research, input from various perspectives as well as alternative models of care with innovative approaches across the MSK care continuum, including a greater emphasis on prevention efforts. They require a system of care that can focus on not only treating the conditions but also on managing the comorbidities that are commonly associated with them, such as diabetes, depression and obesity.

See the detailed list of achievements and successes in **Appendix A**

Our Successes and Achievements

Since its inception in 2012, the BJH SCN has made important gains and achieved success in a number of areas, positively impacting Albertans and enhancing the sustainability of our health care system. During our first 5 years, priorities were focused on addressing the significant burdens related to arthritis (both osteoarthritis and rheumatoid arthritis), and osteoporosis and related fragility fractures.

Hip and Knee Arthroplasty Program

The **Hip and Knee Arthroplasty Program** designed and implemented a standardized evidence-based clinical pathway for hip and knee arthroplasty, which includes a central intake process and an embedded quality improvement measurement framework to ensure on-going effectiveness and efficiency gains.

The Fragility and Stability (F&S) Program

The Fragility and Stability (F&S) Program encompasses the full continuum of care for Albertans with osteoporosis and related fractures. It includes two evidence-based clinical pathways for hip fracture patients (acute surgical pathway and the restorative care pathway) and innovative secondary fracture prevention programs (Catch a Break and the Fracture Liaison Service) to reduce the risk of a subsequent fracture related to osteoporosis.

The Arthritis Working Group (AWG)

The Arthritis Working Group (AWG) was active for several years and articulated the need for shared-care models of care to improve timely access to effective care. Easy access to competent, comprehensive assessment is a goal for all MSK conditions and in the case of RA, the need is amplified by a relatively short period time, measured in weeks, where a patient is most responsive to a preferred class of medications that are relatively effective at keeping some of the usual symptoms in check.

Hip and Knee OA Conservative Management

In the last 3 years we have shifted the BJH SCN priorities beyond surgical care to **focus on conservative management and prevention to promote bone and joint health**. Key areas of work and successes include: Good Living with Arthritis:Denmark (GLA:D™) program; co-creation of the Model of Care for OA Management through the Conservative OA Working Group which worked on development of non-surgical OA educational programs, tools and resources for patients and providers, within Alberta hip and knee clinics.

Injury Prevention

Supporting the spread and implementation of the *SHRED Injury Prevention Program*. This is an Alberta-developed, evidence-based injury prevention program that has demonstrated effectiveness in reducing injuries in athletic youth and in the general youth population through school implementation. The direct effects of this program are positive impact on the prevention of co-morbidities such as obesity, OA development and on reducing the burden on emergency and community-based health services.

MSK Assessment Models

Advancing how Albertan's access and receive musculoskeletal (MSK) Assessments. The BJH SCN is leveraging collaboration with multiple stakeholders, to collectively standardize the assessment process, position ourselves for sustainable funding, use outcome measures to ensure high quality service, and provide patients and providers with consistent communication regarding their resulting treatment plan.

Advancing MSK Research and Knowledge

Continuing to advance the science of MSK health services research by co-leading and collaborating on three successful Partnership for Research and Innovation in the Health System (PRIHS) Research projects (Central Intake, STOP Fracture, and SpineAccessAlberta). The findings of these studies have been directly applied within BJH SCN programming (e.g. F&S program, Arthroplasty Program). Awarded *funding* through Alberta Innovates' Accelerating Innovations into CarE (AICE) program to investigate the uptake of innovative technologies (Vivametrica) in clinical settings

We will continue to build on these successes as we look ahead to the next five years, informed by the voice of Albertans we serve.

Our Guiding Principles and Values

The Bone and Joint Health SCN is committed to AHS Core Values (Compassion, Accountability, Respect, Excellence and Safety) and their integration into this strategic plan, and the following principles will guide our work:

Collaboration: We work collaboratively with our stakeholders and create shared accountability for decision making and outcomes based on our commitment to alleviate the suffering of patients and their families.

Engagement: We believe we are better together. Combining our collective knowledge, skills and passion contributes to better outcomes and promotes a culture of inclusivity and shared ownership.

Integration: We bring together different stakeholder groups and act as a central hub to ensure coordination, comprehensiveness, continuity and sustainability across Albertan's MSK journey.

Patient-Centred Care: Patients and families are at the heart of our work and understanding their needs, priorities and experiences is part of everything we do.

Communication: We take ownership of our actions and work constructively with the members of our community by creating open and transparent communication.

Research and Innovation: We rely on research and evidence to design and pilot scientifically rigorous studies, generate high-quality data, and use evidence to inform decision-making.

Development of the Transformational Roadmap

The Transformational Roadmap (TRM) is 5-year strategic plan which defines the direction and activities of a SCN. This section briefly describes the development of this roadmap for the BJH SCN.

Development:

TRM refresh work started in 2019 with a review of the current state of the musculoskeletal health with the Core Committee to identify what is being done, successes and achievements, and the gaps in care.

Throughout the year, a series of leadership team and Core Committee meetings were held which helped us articulate our guiding principles and values, along three strategic priority areas.

Following this, an extensive consultation process ensued with a wide range of stakeholders directly involved in Alberta's healthcare system, including patients, physicians, nurses and allied health, administrators and policy makers.

The consultation process included multiple engagement approaches including an online community survey, a series of focus groups and telephone interviews with stakeholder groups, presentations at different conferences and events.

Community Consultation Results

November, 2019 – March, 2020 Online survey: 100 responses, 5 focus groups, 7 in-depth interviews

Survey Respondents: 33% Edmonton, 49% Calgary, 3% North, 6% South, 7% Central Zones, and 2% outside Alberta

Online Survey: Satisfaction with the plan

Rated from 1 to 10, where 1 is "way off base" and 10 is "on the right track"

1	2	3	4	5	6	7	8	9	10
0% (0)	0% (0)	0% (0)	0% (0)	6.41% (5)	11.54% (9)	21.79% (17)	29.49% (23)	16.67% (13)	14.1% (11)

Response Total: 78
Response Average: 7.81

Major Themes

- Perceived strengths of the plan
- Perceived weaknesses of the plan
- Ideas from our community
- Advice for implementation
- Detailed ideas on each priority area

Perceived strengths

- Clear, comprehensive, ambitious
- Realistic with specific goals
- Focus on prevention, health promotion and care continuum
- Valuing integration, engagement and involvement of stakeholders
- Multi-disciplinary approaches
- Patient-centered

Perceived weaknesses

- Ambitious plan
- Family physician engagement is lacking
- Not enough focus on rural areas, traditional Chinese medicine technologies, mental health, post-op transitions, pain management
- Separating bone and joints
- Lack of alignment

Do you feel we've clearly outlined what we intend to do over the next 5 years for:

Joint Health
Yes – 94%
No – 6%

Bone Health
Yes – 95%
No – 5%

Movement & Function
Yes – 91%
No – 9%

Planning assumptions and principles driving the Roadmap

The following principles underlay the 2020-2025 BJH SCN Roadmap:

- A provincial focus
- A strong focus on collaboration and engagement
- A systems-based approach: integration with other parts of the system
- The integral role of data: telling us how we're doing, guiding what we work on
- Using best evidence and research to drive innovation & improvement

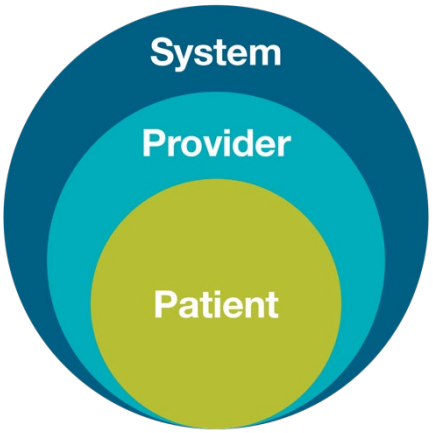
The work of the Bone and Joint Health SCN is guided by:

- Identified AHS priorities
- Evidence based best practices
- Reducing clinical variation (based on data analysis)
- Stakeholder input
- The SCN Mandate and the 2019 - 2024 Transformational Road Map (https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-primer.pdf and https://www.albertahealthservices.ca/scns/Page13670.aspx)

To improve bone and joint care in Alberta, the Bone and Joint Health SCN needs to operate in more than just an advisory role; rather we need to be champions of change with the ability to drive implementation while enabling stakeholder ownership of transformative change. We need to move beyond the hospitals and engage more meaningfully with community partners…supporting and informing their initiatives as much as getting their support of our initiatives focused on prevention and earlier interventions to support Albertans to live healthier and active lives, even when diagnosed with a MSK condition.

The Bone and Joint Health SCN 2020-2025 Transformational Roadmap

From illness to wellness – **keeping Albertans moving** across their lifespan



The goal of the BJH SCN is to transform the way bone and joint care is delivered to Albertans. Within a transformed bone and joint care system, Albertans will be supported across the full continuum of care from prevention to end stage care. Our focus is increasingly turning to important areas upstream in the care continuum and in community, to more effectively support Albertans across all stages in their bone and joint health journey.

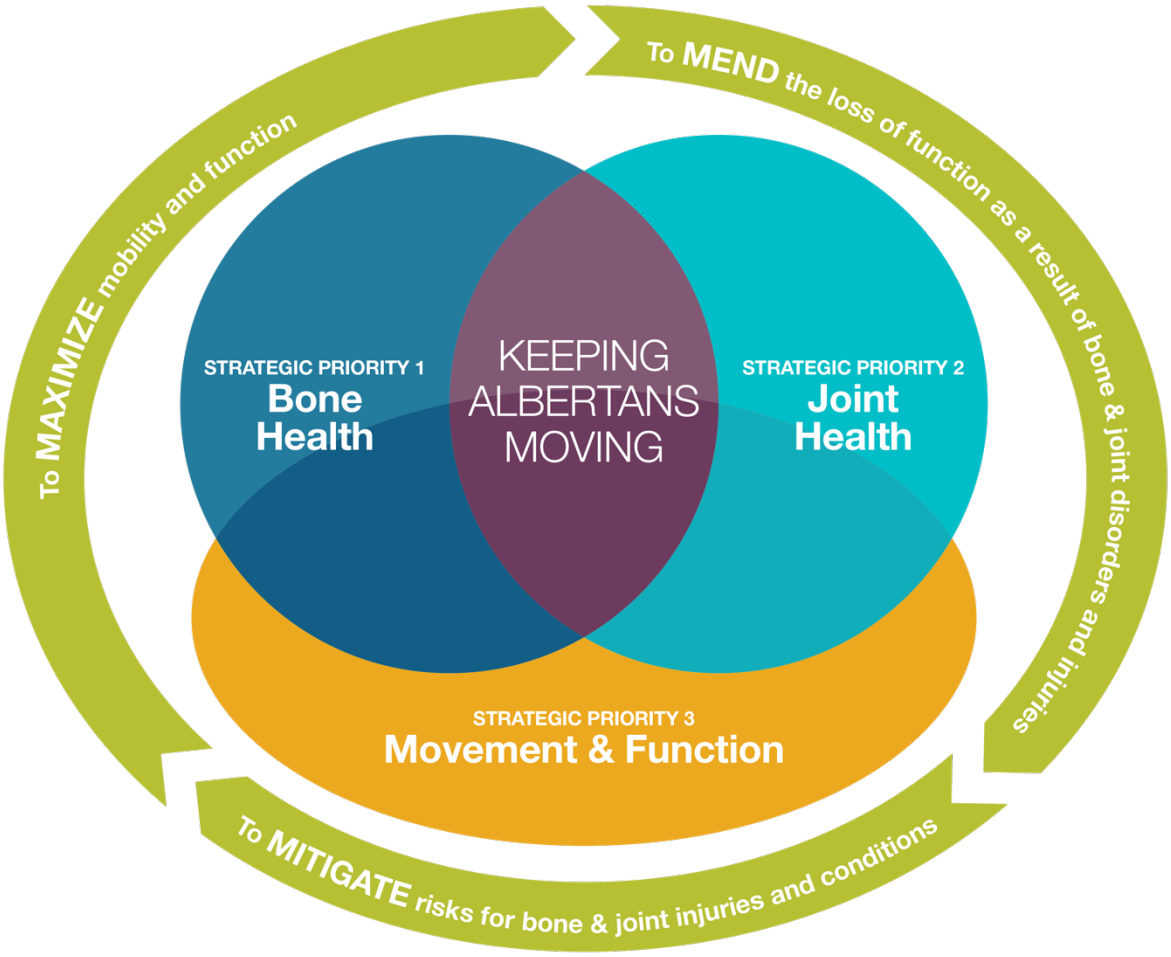
Transforming care for patients:
The support and care they receive will be coordinated and integrated. The health care system will provide early meaningful diagnosis and interventions, personalized care plans, and optimized navigation across the continuum. Patients will be engaged in collaborative and shared decision making, and will be partners in their care.

Transforming care for providers:
Within a transformed bone and joint care system, clinicians will be part of collaborative, integrated care teams providing patients with education, diagnosis, triage, treatment and rehabilitation support based on best practices and evidence-based guidelines. Each team member will contribute their expertise in the context of a complement of providers, and will be knowledgeable and respectful of other team members' roles in the flow and care of patients.

Transforming health care system:
Within a transformed bone and joint care system, patient care will be coordinated and integrated across the continuum. The process of care will be clear and transparent to patients and their providers. Patients will have access to all of their medical records and clinicians will have access to the medical records of their patients. Algorithms, pathway flows and care standards will be built to ensure all patients have timely access to integrated care that is consistently of high quality and that optimizes their outcomes.

"Don't sit around waiting for life to begin after surgery. Get up. Be active. Do whatever you can to get your body in good shape before surgery, so your recovery after surgery will be quicker, easier, and better, so you can happily resume your life." **JOAN S., PATIENT**

Strategic Directions & Priorities



The BJH SCN 2020–2025 Roadmap will focus on three priority areas to keep Albertans moving. The actions within each priority area will strive to **MAXIMIZE** mobility and function, to **MEND** the loss of function as a result of bone and joint disorders and injuries, and to **MITIGATE** risks for bone and joint injuries and conditions. We will align our existing work with these three areas in addition to launching new initiatives. In the following sections, we explain each strategic priority in detail.

- **What do we mean by MAXIMIZING mobility and function?**
  Working with Albertans of all ages, maximize and optimize their quality of life through sustaining their musculoskeletal system (bones, muscles, and joints) to allow for pain-free and functional mobility across the lifespan. We will work with Albertans to implement this “Shared Responsibility” to **MAXIMIZE** approaches to achieve this goal and meet individual expectations through education and access to high quality information.

- **What do we mean by MENDING the loss of function as a result of bone & joint disorders and injuries?**
  Working with health professionals, the health care system, and the Alberta research community, ensure that patients receive evidence-based, and effective interventions that can be implemented to restore function and remove disability for Albertans of all ages who have suffered injuries and diseases to their bone, muscles and joints. Through continued advances and improvements, Albertans will have access to high quality interventions and procedures to achieve this goal. Restoration of functional mobility across the lifespan is central to quality of life, and evidence-based interventions are essential to **MEND** its loss.

- **What do we mean by MITIGATING risks for bone and joint injuries and debilitating conditions?**
  Risk for loss of our bone, muscle and joint health, and physical function is embedded in all aspects of life (genetics, maturational events, nutrition/obesity, occupations, and behaviours). Working with Albertans of all ages, we will work to minimize the impact of modifiable risk factors for loss of the integrity of the musculoskeletal system, and also work to enhance activities and behaviours that **MITIGATE** such risks. We commit to work together with Albertans, their Health Care Professionals, and the Alberta Research Community, to detect diseases earlier in order to be able to better reverse or modify development and impact of debilitating conditions.

These goals are dynamic, with new advancements continually being developed. Therefore, the BJH SCN will continually assess, refine and adapt our priorities and initiatives to this evolving environment to ensure Albertans are receiving the best opportunities to meet these three elements of their health.

Set out clear clinical pathways that make sure that patients, regardless of who they are and who they know, get care.

Maureen Johnson, patient

Strategic Priority 1: Bone Health

Healthy bones are the foundation to movement and participating in daily activity.

Strategic Initiatives

To close the bone health care gaps and strive to prevent it in the first place, with our partners, the BJH SCN will focus on key initiatives related to bone health promotion *(maximizing)*, primary and secondary fracture prevention *(mitigating)* and evidence-informed acute and restorative care pathways *(mending)*. We categorize the below initiatives into short, medium and long term time frame, realizing that the time frames overlap considerably, and most of the initiatives are ongoing, through to 2025.

By 2025, we will:

Short term:

- Scale and spread the well-established provincial hip Fracture Liaison Service program to capture and include the remaining groups of Albertans not currently served by the program including but not limited to those who suffer serious, low-trauma, non-hip fragility fractures as well as incorporate and effectively manage all fragility fracture patients in the province, regardless of home address *(mitigate)*.
- Optimize the acute surgical hip fracture pathway to continually decrease the wait times for hip fracture surgery, minimize post-operative complications and improve

the patient experience throughout their acute care journey. We will integrate the well-established hip fracture quality improvement teams at each of the hospital sites into an overarching surgery outcome improvement strategy with the Surgery SCN. We will also optimize the design and use of the hip fracture pathway in Connect Care *(mend)*.

Medium term:

- Create and disseminate evidence based bone health education and programming to individuals across their lifespan. This work encompasses the full continuum of care from bone health promotion and prevention of primary and secondary fractures to hospital care for fragility fractures and ongoing care following a hip fracture *(maximize & mitigate)*.
- Endorse and advance implementation of bone health programs including the importance of weight bearing exercises and muscle strengthening *(maximize & mitigate)*.
- Explore the evidence supporting primary prevention strategies to improve bone health. Initiate a proof of concept project to evaluate effectiveness of primary prevention strategies before advocating for a province-wide strategy *(maximize & mitigate)*.

Long term:

- Partner with Primary Health Care providers and communities to create better ways to improve bone health by identifying and treating osteoporosis early including appropriate use of Bone Mineral Density Testing. Catch a Break is an example of the work done in this area already, with successful outcomes targeting a reduction in secondary fractures. We will expand this work and strive to integrate better with outpatient orthopedic settings, primary health care structures, resources and approaches for healthy living as well as the Fracture Liaison Service for a comprehensive, integrated fracture prevention strategy in Alberta *(mitigate)*.
- Refresh and implement the restorative care pathway which expands care and rehabilitation for hip fracture patients beyond the walls of the hospital and creates a smoother transition for patients by identifying the appropriate care at the right time and in the most efficient manner. This will involve partnering with people and programs in Seniors Health, Rehabilitation Services and Primary Health Care to develop and implement projects and innovative models of care which integrates the restorative care pathway, elder friendly care, fall and delirium prevention and rehabilitation *(mend)*.
- Endorse and advance implementation of appropriate community rehabilitation to optimize functional abilities and quality of life including expanding the use of virtual care *(mend & maximize)*.

Strategic Priority 2: Joint Health

Healthy joint function is paramount to “keeping Albertans moving” regardless of one’s age or activity level. The area of prevention of joint injury and, by extension, future MSK chronic disease, is critical to reducing demand for joint care later in life. There are hundreds of joints throughout the body supporting different functions and movement and the study and care of joint health has increasingly subspecialized. This contributes to diverse knowledge generation and complexity in translating this knowledge and implementing integrated, comprehensive services and programs accessible to all Albertans to prevent joint injury, mend joint injuries and disease to improve and maintain overall joint health and function.

Strategic Initiatives

Alberta is extremely fortunate to have some of the world’s most leading experts and innovators in joint health. The BJH SCN will continue to build on previous successes and strive to support and partner with these individuals and teams to help all Albertans access and benefit from this evidence-based care on a number of fronts. We categorize the below initiatives into short, medium and long term time frames, recognizing that the time frames overlap considerably, and most of the initiatives are ongoing.

By 2025, we will:

Short term:

- In collaboration with our strategic partners within academia and within the sports communities, support continued research and scale and spread the implementation of proven joint injury prevention programs across the province *(maximize & mitigate)*.
- Standardize joint assessment practices based on evidence through iterative development of both surgical and non-surgical care paths delivered through multi-disciplinary Central Intake/Triage Clinics for all MSK conditions to reduce variations in care and outcomes for improved shoulder, spine, foot, ankle, soft tissue knee care *(mend)*.
- Develop, test and evaluate a model for funding of non-surgical care to inform scale and spread across Alberta. This funding model will emphasize team-based care that is patient focused, safe, and delivered in a timely manner *(mend)*.

Medium term:

- Engage with Rheumatologists throughout Alberta. Collectively, promote and advance innovation, quality improvement and address care gaps for Albertans with Inflammatory Arthritis (IA) including streamlining care for all Albertans presenting and living with inflammatory arthritis. A uniform standard of care will be in place so these patients see the right provider for the right care, at the right time *(mitigate & mend)*.

> My osteoarthritis has forced me to try all options. Is there a "magic pill?" I haven't found one yet.
>
> **DAVID WERBOWESKI, PATIENT**

- Partner with researchers, clinicians, and patients to better understand the unique intersection and interplay between obesity and OA including the development of risk-management strategies to better identify and manage obesity-related risk in the surgical orthopedic population and a framework to provide the most appropriate MSK care for patients living with obesity and osteoarthritis *(mitigate & mend)*.
- Promote, expand and implement, along with our partners with the valuable guidance of our patient advisors, joint health public education and wellness across the lifespan including age-appropriate educational programs that will improve the health literacy of all school children in Alberta *(maximize & mitigate)*.

- In partnership with the Alberta Surgery Initiative, establish a standardized approach and implementation of central triage for all joint care. Through the establishment of access to pre-consultation specialty advice and central access and triage for consultation with orthopedic specialists, access to MSK care will be improved and made more equitable throughout Alberta *(mend)*.

Long term:

- Partner with multiple SCNs and Primary Health Care practitioners to better understand the unique needs of specific populations, such as members of indigenous communities and new arrivals to Canada relating to their joint health. Develop and test projects to bridge the gaps *(maximize & mitigate)*.
- Test multiple conservative management strategies to empower and support patient self-management of OA. Develop and implement a comprehensive osteoarthritis conservative management toolkit and pathway including an Alberta OA Standard of Care for use by all Albertans *(mitigate & mend)*.
- Advance research to address the needs of Albertans living with obesity and osteoarthritis *(maximize, mitigate & mend)*.

"Keep moving. They are right – if you don't use it, you WILL lose it."

JOAN S., PATIENT

Strategic Priority 3: Movement and Function

The third strategic priority area is Movement and Function which encompasses bone and joint health; however, also defines additional areas or aspects of work that address cross-cutting themes (e.g. pain) or lend themselves to an integrated approach that is not body part specific or focused. This priority area will link many innovations and interventions, not unlike connective tissues (ligaments, tendons, and muscles) link the MSK system, to promote standardized, evidence informed services and quality care to support Albertans in remaining active.

Strategic Initiatives

This strategic area, like the other two, provides challenges and opportunities in working with both the public as well as the private system of care providers in Alberta. The BJH SCN seeks to build on the strengths of both public and private providers, encouraging and facilitating the sharing of clinical information to support seamless transitions, to leverage expertise from all stakeholders, and to optimize standards of care across clinical settings. The end goal will be to maximize positive patient and provider experience. Similar to the other strategic priorities, the movement and function strategy requires meaningful, measurable progress, while recognizing that the work required will extend far beyond the life of this plan.

By 2025, we will…

Short term:

- Integrate pain prevention and management strategies for bone and joint conditions from the Alberta Pain Strategy *(mitigate & mend)*.
- Develop and implement a process to clarify BJH SCN role and process in supporting vendors, evaluating and advancing new technology and innovations in bone and joint health and care *(maximize, mitigate & mend)*.

Medium term:

- Partner and collaborate with multiple SCNs and stakeholders representing a broad spectrum of health conditions to maximize the implementation, integration and impact of health promotion and healthy living initiatives to promote bone and joint health and to empower Albertans in active living *(mitigate & mend)*.
- Continue to build our network and revisit our engagement strategy to increase collaboration with key stakeholders that contribute to movement and function- including disciplines such as kinesiologists and community agencies such as YWCA. Develop strategic partners to identify, support and address mood and other mental health concerns in bone and joint health populations *(mitigate & mend)*.
- Leverage expertise and resources related to health change (e.g. Health Change Methodology course, Motivational Interviewing and other programs) to guide approaches in supporting desired practitioner, patient and public changes *(mitigate & mend)*.

Long term:

- Through partnerships, develop and implement a web-based source of truth for information related to bone and joint health information and care, integrating with current and future technologies. Publish recommendations/ratings on technologies and innovations contributing to **"Keeping Albertans Moving"** *(maximize & mitigate)*.
- Transition proven bone and joint health models of care and programs into operations to ensure sustainability and integration in the health system *(maximize, mitigate & mend)*.
- Collaborate with Primary Health Care physicians and networks by including options for advanced bone and joint health assessment and pain management training *(mitigate & mend)*.
- Enable program integration and systems-approach to promoting mobility and movement across the lifespan and settings. Integrate with Primary Care Networks, physicians and other primary care clinicians to create seamless transitions for musculoskeletal care *(maximize, mitigate & mend)*.
- Implement Shared Decision Making principles across all program areas *(mend)*.

Evidence-Informed Practice, Research & Innovation

The Bone and Joint Health Strategic Clinical Network (BJH SCN) is tasked with driving the transformation of bone and joint healthcare service and delivery in Alberta. Our mission is to “Keep Albertans Moving”, which requires attention along the continuum of care - from hospital care to community based care – and across the lifespan – from our children and to our older adult populations. The transformation also involves facilitating a "shared responsibility" or partnership between the health care system and individual Albertans. We all have a role - as researchers, patients, healthy citizens, politicians, policy makers, health professionals, and administers – in supporting the health of Albertans and responsible utilization of our healthcare system to ensure its sustainability.

Recognizing the importance of evidence and new knowledge in enabling such a transformation, the Scientific Office (SO) is an integral component of the BJH SCN, and embedded within the SCN and the SCN leadership team.

We recognize that the transformation envisioned requires a shift in our orientation towards bone and joint health issues, and how we understand and approach them. To that end, the SO will continue to facilitate and strategically support research and knowledge translation activities, in consultation with Albertans, which will orient us towards achieving such a transformation. This will involve new opportunities such as BJH SCN research facilitation funding opportunities. We will aim to elicit research that applies new conceptualizations of existing problems to identify potential solutions. Applying an evidence-informed approach, the aim will be to develop a framework that will guide how the BJH SCN supports uptake of innovative technologies by Albertans and within the health care system, those that support MSK health and well-being. And lastly, the SO will continue to bring together stakeholders connected to a topic, but with different perspectives to enable collaboration and provide opportunities for innovative thinking and action that address bone and joint health across the lifespan. The SO will build on our experience with various vehicles (workshops, symposiums, white papers, publications) to further enhance the effectiveness of the transformation, and identify new opportunities to effect such change.

Measurement and Evaluation

This is an ambitious agenda and key metrics will inform our progress and impact as we implement these strategic priorities. Because of the expertise and partnership with the Alberta Bone and Joint Health Institute, the BJH SCN has a strong history of advancing quality based indicator measurement based on Clinical Care Paths and by facilitating collaborative province wide working groups to leverage analytics and quality improvement processes to achieve change in desired directions for patient outcomes.

The BJH SCN™ is undergoing a rigorous process of identifying key ***quality and performance indicators*** to measure progress towards the stated strategies and goals of the 2020-2025 BJH SCN Transformational Roadmap (TRM).

We will bring forward the most relevant quality measures that are embedded in clinical Care Paths from our current provincial programs, including:

- Hip and Knee Arthroplasty
- Hip Fracture Acute Care
- Fracture Liaison Program
- GLA:D (for hip and knee osteoarthritis)

Additional indicators are included to ensure the necessary breadth of measure selection for each strategic area outlined in the BJH SCN Transformational Roadmap to:

- **MAXIMIZE** & promote Albertans' mobility and function
- **MEND** Albertans' disability from bone and joint disorders and injury
- **MITIGATE** Albertans' risk for bone & joint injuries and conditions

The current list of key performance indicators include:

AREA/DIMENSION OF INTEREST (CROSS-CUTTING)	CONTEXT	POSSIBLE INDICATORS* – TBC	CONCEPTUAL FRAME
Access to care services: Health services are obtained in the most suitable setting in a reasonable time and distance.[1]	Public & private settings	• Wait times • Cost • Availability of service	Quality of Care Framework
Appropriateness of care received ("right time, right place, right provider"): Health services are relevant to user needs and are based on accepted or evidence-based practice.[1]	Public & private settings	• Patient experience (Way finding?) • Rate of appropriate testing (e.g. BMD, imaging) • Use/adoption of shared-decision making tool • Rate of appropriate referrals to specialists (increasing surgical yield) • Number of visits to Emergency, Family Physicians • Uptake of programs/initiatives (i.e. GLA: D)	Quality of Care Framework
Effectiveness of care provided: Health services are based on scientific knowledge to achieve desired outcomes.[1]	Public & private settings	• Function • Quality of life • Pain • Morbidity/mortality rates	Quality of Care Framework
Disease prevention (primary and secondary prevention): Specific, population-based and individual-based interventions for primary (avoiding disease manifestation) and secondary (early detection to prevent or slow disease progress) prevention, aiming to minimize the burden of diseases and associated risk factors.[2]	Public & private settings	• Disease prevalence: OA; Osteoporosis; Low back pain • Injury prevention • Fracture prevention • Risk of fractures • Falls(s) prevention	Health Promotion Approach
Physical activity levels:** Any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits.[3]	Public & private settings	• Behaviour change • Barriers to activity • # of GLA:D participants	Health Promotion Approach
Health literacy: The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.[4]	Public settings	• Access to information provided by BJH SCN (knowledge) • Use/application of knowledge (behavior change)	Health Promotion Approach
Patient experience: The sum of all interactions, shaped by an organization's culture, that influence patient perceptions across the continuum of care.[5] ***	Public & private settings	• Satisfaction • PREMS • Patient experiences (patient stories/journey)	

Catalysts of Transformation

The priorities outlined in our TRM are ambitious and cut across multiple care settings. Advancing care in the community has unique challenges. Private and public providers have different funding methodologies complicating whether and how programs are implemented. Standardizing care across multiple independent practitioners, clinics and services impacts timelines and ease of implementation. Transformation and change will require all members of our network to be open to change, change resilient and adaptive to changing AHS and Government priorities.

This complexity serves as a catalyst for health care system transformation recognizing that patients often require many different services to treat their disease and comorbidities over long periods of time.

Inclusive Models of Care: Patients and primary care providers have, through an iterative consultation process, made clear to the BJH SCN their view that Albertans need innovative MSK care that does not rely exclusively on specialists, such as surgeons and sports medicine physicians. They have suggested that inclusive models of care making optimal use of appropriate clinicians will improve access to comprehensive care while reducing duplication of services, referrals to the wrong clinician or wrong discipline, and service fragmentation.

Furthermore, patients and primary care providers have said they expect improved and expanded primary prevention, public and patient education, and personal health management strategies. This is, in part, because these efforts reduce injuries, increase the ability of individuals to manage their condition at home, and provide patients with access to a range of services that allow them to reduce the likelihood they will need surgery or other intensive, specialized care.

Team-based Care: Service delivery is fragmented and medical care practices and protocols are variable within bone and joint care. Funding methods oriented toward reimbursing individual practitioners for services rendered are a major contributor to fragmented service delivery in Alberta. For example, Alberta's fee-for-service funding structure does not allow for widespread collaborative models of care for service such as providing community based assessments and the long-term and multidisciplinary care (physicians, physiotherapists, nurses, etc) associated with chronic disease.

Team-based funding is a desirable alternative method. It incents coordination of services across assessment, triage, treatment and rehabilitation with common goal setting and outcome assessment by providers. Access to the appropriate provider at the point in time most advantageous to the patient is a major challenge when managing chronic diseases that require a collaborative, multidisciplinary model of care.

Inter-professional collaboration could improve by leveraging the scope of practice and the roles that can be played by different clinicians involved in delivering care to patients with bone and joint conditions. It is essential in a multidisciplinary care environment for individual roles and responsibilities to be transparent to all and for communication among providers to be timely and unambiguous.

Sustainable Funding & Resources: Traditional funding formulas, have been long standing and continue to limit the opportunity to implement and sustain preferred models of care. Alberta faces a challenging economic climate. This impacts existing and potential future programs, as well the sources and pool size of project and research funds. It is essential that we have sustained and consistent funding that is aligned to our objectives, is flexible enough for us to react to new conditions and challenges, and makes it easy for clinicians to provide the right services. We must also be proactively focused on our long-term planning in order to ensure that we have the resources needed to achieve our Vision. The implementation of Connect Care, Alberta's common provincial clinical information system, is an example of an initiative that will enable consistent practices across Alberta and will improve the care we provide for patients and their families.

Continuous Quality Improvement: The BJH SCN views quality improvement as a process of implementing proven tools and strategies that reveal how frontline health professionals and teams are doing and continuously challenges them to do better. The network recognizes the critical role that culture plays in adopting a quality approach to service provision. To facilitate a culture that fosters quality improvement, attempts are made to create work group practices that facilitate trust, collaboration and a strategic use of analytics to inform and encourage excellence, as opposed to using quality performance results in a punitive manner.

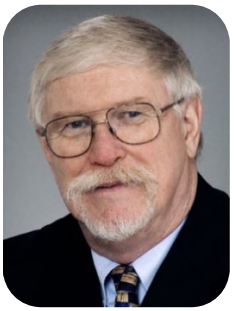
Partnerships: We have always worked closely with our partners and community, and will now actively engage a much broader group of health system partners through a variety of formal and informal strategies throughout our work. This will ensure that our efforts are relevant and meaningful, and will boost our capacity to achieve outcomes with bigger impact.

Measurement & Evaluation: Measurement and evaluation, based on reliable provincially consistent data, is required to improve the quality of decisions made regarding priorities, the evaluation of improvement initiatives, and the sustainability of positive outcomes.

Looking ahead and next steps

Building on our work of the last 8 years, we look forward to the next five years to use evidence to guide further enhancement in bone and joint care. Guided by our mission, vision and values, we commit to fulfilling the objectives within this plan and will report our progress against them. We will also use this document to guide the development, implementation and monitoring of action plans.

Our Team



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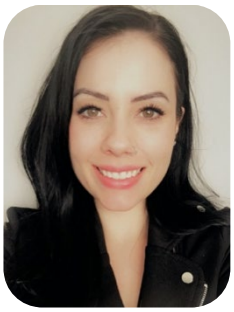

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Appendix A

OUR SUCCESSES AND ACHIEVEMENTS	

Hip and Knee Arthroplasty Program designed and implemented a standardized evidence-based clinical pathway for hip and knee arthroplasty, which includes a central intake process and an embedded quality improvement measurement framework to ensure on-going effectiveness and efficiency gains.	**Key successes:**
	• The pathway has been integrated across all hip and knee clinics in all zones in Alberta.
	• To reduce fragmentation in care provincially, collaborative learning opportunities were held biannually, which engaged surgeons, case managers, nurses, and directors from Alberta hip and knee clinics and acute care sites to share performance outcomes in a collaborative manner and identify opportunities for quality improvement.
	• Significant gains in efficiencies in care, clinical outcomes, and costs.
	  ○ System efficiencies achieved include:
	  ▪ 38% reduction in the length of stay since 2009
	  ▪ 30% reduction since 2009 in readmissions within 30 days post-op
	  ▪ 89% reduction in blood transfusion rates since 2009, accounting for $8.7 million dollars in cost savings
	  ▪ 63% increase in bed capacity since 2009
	  ○ Functional improvement and pain reduction after surgery is consistently reported by patients:
	  ▪ Improved patient education and satisfaction rates (88% as of 2018)
	  ▪ 90% of patients are mobilized, with at least 10 steps, on the same day as their surgery in 2018/19
	  ○ Demonstrating how Shared Savings could be incorporated into funding formulas to reduce clinical and monetary variation across Alberta.
	  ○ A 45% increase in surgical volume since 2010, with nominal cost increase

The Fragility and Stability Program encompasses the full continuum of care for Albertans with osteoporosis and related fractures. It includes two evidence-based clinical pathways for hip fracture patients (acute surgical pathway and the restorative care pathway) and innovative secondary fracture prevention programs (Catch a Break and the Fracture Liaison Service) to reduce the risk of a subsequent fracture related to osteoporosis	**Key successes:** • Successful implementation and evaluation of the program components across Alberta • Establishment of the acute pathway and the prevention programming (FLS and CaB) in all 5 AHS Zones • Prevention programs (FLS and CaB) are designed to provide overall cost savings to the health system • Decrease in inappropriate testing (e.g. BMD, Vitamin D) • Decrease in hip fracture patient mortality by 28% • Improvements in time to OR after a hip fracture with 51% of Albertans arriving in the OR within 24 hours and 76% arriving within 36 hours. • Increase in initiation of osteoporosis medication post-hip fracture from 19% to 44% • Establishment of Catch a Break within Health Link, which has reached over 43,000 Albertans • Successful advocacy for changes to drug coverage (include men; expand the age group eligible; revising wording related to drug administration mode) for medications used to treat and manage osteoporosis and those at high risk for fragility fractures. • In 2018, the Alberta Fracture Liaison Service Team received a President's Excellence Award for Innovation and Research.

The Arthritis Working Group (AWG) was active for several years and articulated the need for models of care that free up specialist capacity to quickly assess new cases. Easy access to competent, comprehensive assessment is a goal for all MSK conditions and in the case of RA, the need is amplified by a relatively short period time, measured in weeks, where a patient is most responsive to a preferred class of medications that are relatively effective at keeping some of the usual symptoms in check.	**Key successes:** • The Arthritis Working Group endorsed a Strategic Plan which identified two key factors to be addressed in order to improve care for patients suffering from Inflammatory Arthritis (IA) in Alberta: (1) increase capacity for care and (2) decrease disparity in clinical care and outcomes • Developed a Shared Care Model for patients with a diagnosis of differentiated IA. The model articulated a primary objective (assessment and monitoring of Rheumatoid Arthritis (RA) disease activity to maintain remission or low disease activity status) and a secondary objective (assessment and monitoring of comorbidities associated with RA), as well as core services to support a Treat to Target (T2T) strategy • A detailed description of the Shared Care Model titled *Inflammatory Arthritis Shared Care Model Assessment - Provincial Report March 2017 - Phase I*. The report provided a descriptive summary of the models at three sites (Rheumatology Telehealth Clinic in Pincher Creek, Collaborative Stable Rheumatoid Arthritis (CSRA) Clinic at South Health Campus, and On-TRAAC Clinic in Edmonton) including an overview of the population served, the services delivered at each site, and critical success factors • A Phase II Report which was a continuation of the shared care evaluation initiative and included an analysis of qualitative data collected relating to provider experience and clinic operations, which was intended to be used in part to inform decision-making, planning, and prioritizing of initiatives in support of the AWG's strategic plan.
GLA:D™- Recognizing the importance of empowering individuals to effectively manage living with osteoarthritis, the BJH SCN successfully implemented a program specifically designed for individuals with arthritis – Good Living with Arthritis:Denmark (GLA:D™). The SCN has also completed a feasibility evaluation of GLA:D, with positive findings, and is continuing to support additional research related to GLA:D in an effort to ensure access to effective and evidence-informed interventions for Albertans.	**Key successes:** • Led four GLA:D™ training sessions in Alberta, resulting in over 150 trained GLA:D™ providers in the province • Supported clinics across all 5 zones to successfully implement GLA:D™ and completed clinic fidelity reviews for quality monitoring purposes • Completed a provincial evaluation, which further supports the benefits of GLA:D™ to Albertans and identifies factors that inform continued spread of GLA:D™ in the province • Transitioning GLA:D™ to be delivered remotely, through video technology, as a response to the 2020 COVID-19 Pandemic
Physical activity levels Framework for OA Care**	With patient advisors and network members, the SCN co-created the *Model of Care for OA Management* that outlines a cohesive approach to OA management across the care continuum.

Conservative OA Program - Conservative Working Group – In recognizing the need to work upstream to have substantial and timely impact in supporting Albertan's living with OA, the *OA Conservative Working Group* was established in 2018. The group was tasked with developing non-surgical OA educational programs, tools and resources for patients and providers, within Alberta hip and knee (H&K) clinics.	**Key successes:** • Piloted a new program that included core education classes and patient navigation services for non-surgical candidates at the H&K clinic in Lethbridge. 97% of patients found the program valuable and recommended it to others. The positive patient and clinician feedback led to the recent adoption of the program in a Calgary H&K clinic. • Developed and published an OA toolkit to support the patient's self-management of their OA. The toolkit includes: an education booklet, resource inventory, treatment menu and report card. These resources will be made available online on the MyHealthAlberta website for ease of access. • Developed and launched the "Reasons for Non-Surgical Designation" form at H&K clinics. It will be used to identify and track the care journey of 10,000 patients across Alberta, who are deemed non-surgical at consultation each year to ensure appropriate continuation of care and support. • Developed a Shared Decision-Making Toolkit for health care providers to better implement shared decision making in everyday practice. The toolkit includes: an instructional video, practical guidelines, patient decision tool and clinic posters.
Injury Prevention – Recognizing that injuries in youth result in a high risk for development of bone and joint health issues in adulthood and a range of additional health co-morbidities, the BJH SCN is supporting the spread and implementation of the *SHRED Injury Prevention Program*. This is an Alberta-developed, evidence-based injury prevention program that has been extensively evaluated. It has demonstrated effectiveness in reducing injuries in athletic youth and in the general youth population through school implementation, and has had a positive impact on the prevention of co-morbidities such as obesity and on reducing the burden on health services.	**Key successes:** • Implementation of evidence-based neuromuscular training (NMT) programs as a warm-up prior for sport and recreational activities has demonstrated a reduction in injuries between 30 and 60% ○ An estimated $2.7 million in provincial health care cost savings in one year was estimated when a NMT warm-up program was implemented in youth community soccer • Funding from the BJH SCN has supported the role of a Knowledge Broker, resulting in the delivery of 100 in-person workshops to over 1,600 end-users (e.g., coaches, teachers, clinicians, policymakers, physical activity leaders), reaching an estimated >25,000 youth across the province over two years • Inclusion of the delivery and evaluation of online workshops increases the potential reach rural communities • NMT has been included in the Safety Guidelines for Alberta Schools; incorporated in the 'School, Physical Activity, Health & Education Resource for Safety' • Development of a SHRED Injuries train-the-trainer program will facilitate the scaling up of the delivery of evidence-informed injury prevention warm-up workshops across provincial sport organizations and schools across all Alberta communities • Partnerships established with four major post-secondary institutions in Alberta will support the implementation and evaluation of injury prevention content, including NMT warm-up programs, into curriculum • Development of support resources including an App, video and print resources

MSK Assessment – The BJH SCN has supported the development of community based Knee MSK Assessment Models.	**Preliminary findings of such models specifically for knee injury indicate the following key successes:**
	• Over 50% reduction in knee MRI scans when the MSK Assessment model is utilized compared to usual care.
	• The Lethbridge Emergency Department referring all non-fracture injuries to the Southern Alberta Knee Injury Clinic
	  ○ Timely appointments (within ~1 week) for comprehensive assessments and standardized, individual treatment plans
	  ○ Avoiding inappropriate specialist referral for ~70% of cases
	  ○ High rate (~80%) of appropriate referral to specialists compared to ~50% with usual care
	• Patients placed on appropriate non-surgical care pathway to expedite return to pre-injury activities

The Scientific Office of the BJH SCN has hosted three multi-disciplinary *workshops*, which created the opportunity to discuss gaps in care and innovative ideas, and helped define concrete action plans. Workshop topics included: Stems cells for OA; Treatment of OA in patients with obesity, and transitions in care following a fragility fracture.	**Key successes:** • Brought together a range of stakeholders engaged in a defined area of health that rarely have an opportunity to directly interact or exchange ideas • Published white papers (3) for each of the workshops • With input from a range of individuals with experience and/or knowledge on these topics, the workshops provided an opportunity for provincial-level discussions and defined concrete action items to address the gaps • Developed a list of FAQs on stem cells for Albertans, available on myhealthalberta.ca
Collaboration with other SCNs	We are working with the DON SCN on initiatives for Albertans living with osteoarthritis and obesity. We are co-leading a project with our Emergency SCN colleagues which aims to establish an effective low back pathway across the care continuum - from emergency departments into the community.
Research projects and collaboration: PRIHS	The BJH SCN has co-led and collaborated on three successful PRIHS projects (Central Intake, STOP Fracture, and SpineAccess) all of which have had a significant impact on improving care delivery for Albertans with osteoarthritis, osteoporosis and back issues respectively. **Key successes:** • Standardization of data capture at H&K clinics across the province is ongoing. This initiative aims to improve the efficiency of the central intake process and data collection compliance • Assessing patients through the SpineAccessAlberta model results in quicker access, fewer MRIs, more appropriate referral to surgeons and reduced opioid usage. • Provincial bone health programs (Hip Fracture Liaison Services and Catch a Break) have increased the number of people who start medications after a fracture to prevent the next fracture. There are trends towards reduced re-fracture rates after these programs started.
Research projects and collaboration: Alberta Innovates	As one example, the BJH SCN was awarded funding through Alberta Innovates' AICE program to investigate the uptake of innovative technologies (Vivametrica) in clinical settings. **Key successes:** • Establishing a successful working relationship with an Alberta-based technology partner • One conference presentation • Development of two publications and two reports • Important lessons about how to approach the interface between health system requirements, consumer-driven health technology uptake, and the needs of technology partners

"Life is too short to sit around in pain. Get moving. If you need surgery to facilitate that, do it. If you need another replacement in 10 to 20 years because you wore out your new joint, do that too! Life is for living!"

JOAN S., PATIENT

WEBSITE: https://www.albertahealthservices.ca/scns/Page7675.aspx

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