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Alberta Health Services

Alberta Health Services: Strategic Clinical Networks A Primer & Working Document (March 6, 2012 - V4)

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OVERVIEW

AHS is leading the formation of Strategic Clinical Networks (SCNs) to support clinicians and all key provincial stakeholders in building Canada's highest-performing publically funded health system.

Given its position as Canada's only province-wide health delivery organization, Alberta Health Services (AHS) has the unique ability to create novel approaches to sustainable health care delivery, prevention and wellness for every Albertan. Over the past year, AHS has strengthened local decision-making ability through the creation of five Zones in the Province. Each is charged with addressing the important and special needs of their populations, as those needs are known to vary across the Province. To balance those essential and local priorities province-wide, to eliminate potential clinical care gaps based on geography, and to ensure equitable, seamless and sustainable access to high quality care for everyone, Alberta also needs evidence-informed provincial structures and processes, responsible for designing care and prevention strategies, led by clinicians, and supported by AHS.

This document provides an overview of how these new provincial structures called "Strategic Clinical Networks" (SCNs) will work, how they will integrate with Alberta's Primary Care leadership and AHS's zonal approach, and what they will deliver from a provincial perspective. Given that system innovations of this magnitude have no template, this Primer has to be considered as a working document that will serve as a directional compass to drive the discussion and implementation of this Strategy. This Primer will be updated as frequently as is required to inform stakeholders, to guide discussion and to build on the lessons learned from the initiation of the first 6 SCNs.

The Goal

Improving and maintaining the health of every current and future Albertan is the goal of Alberta Health Services (AHS) and its provincial partners in health. To this end, and to create a high-performing health system, AHS recognizes that clinicians, and in particular physicians, must be positioned in key strategic roles within AHS; not only leading on the front line but also leading the development of strategies to achieve integrated prevention and care across the Province. Integrated multidisciplinary teamwork and evidence-informed pathways that span continuums of both acute and chronic care are needed to enable the successful implementation of any/all improvement strategies. Highly efficient, clinician-led teams, with broad internal and external membership will link people, and manage resources and infrastructure

seamlessly to ensure that every Albertan can benefit from the best health advice and care, no matter where they are in the Province.

What are Strategic Clinical Networks and How will they Support Clinicians?

Strategic Clinical Networks (SCNs) are the mechanism through which AHS plans to empower and support physician and clinical leaders in AHS and in the community to develop and implement evidence-based, clinician-led, team-delivered health improvement strategies across Alberta. Through a collaborative membership model, each Network will aim to facilitate a seamless approach with teams from primary care to specialty care, acute care and community care that will make each patient a priority. SCNs will also focus on leading and supporting evidence-informed improvements in team-delivered prevention and in clinical performance, in order to achieve the highest quality and best outcomes at the lowest reasonable costs.. Exceeding patient expectations within a high-performing and sustainable system will be their collective goal.

Learning from international experts how to effectively achieve such sustainable changes in health and health care, SCNs will not be 'top-down' structures that simply try to implement programs and projects designed by others. Instead, SCNs will proactively engage interested parties in AHS, and its partners, to become SCN members who will actually lead and own 'bottom-up' innovation and improvement in health and health care. To support Primary Care clinicians across Alberta, SCNs will help to ensure that Primary Care Networks and Family Care Clinics are the primary care 'homes' and ‘neighbourhoods’ for every patient. This will require important and effective engagement with primary care leadership across the Province to ensure that a seamless system is created with primary care at the centre. An AHS-supported SCN dedicated to Primary Care and led by Primary Care Clinicians is one proposed mechanism for this outcome to be enabled.

How will Strategic Clinical Networks integrate with clinical operations groups?

All operational groups and provincial clinical services will participate actively in each Network and each Network will function within all Zones and provincial clinical services. Each SCN is intended to become a vehicle for a wider membership structure, where front-line staff from across care settings and facilities and community groups contribute as members of each Network, sit on SCN program committees and/or participate in SCN working groups. Members will provide input to help generate best practice, and actively participate in the implementation and spread of quality improvements.

Based on evidence of health or health care variance, inequity, gaps or opportunities, teams within and across SCNs will target areas for provincial improvement. With operational support for the highest value projects, they will use standardized and

systematic care pathway approaches to design, develop, test, implement, measure and iteratively improve effective and sustainable care and prevention.

A dyad comprised of an accomplished senior strategy director and senior medical director, will co-lead each SCN. The leads will assemble a strong provincial steering committee with a core team of carefully chosen providers, strategy and administrative leads, operators, patients and academic partners. Together, they will set priorities, direct plans and stimulate activities of the Network; and, will be the active interface with clearly identified network members on the front lines across the Province. Patients and communities will similarly be engaged in the SCN as expert groups, again functioning as equal SCN members. This will provide grass-roots inputs to SCN priorities and plans, as well as provide feedback on progress against objectives.

As discussed later in this paper, through a programmatic model in each Zone and provincial clinical service, SCNs will work collaboratively with relevant zone clinical departments and sections, and with senior and facility Medical Directors, in order to ensure the essential engagement of physicians and other AHS practitioners and to put provincial strategies into local contexts.

How will Strategic Clinical Networks Collaborate?

There will be several strategies used to ensure effective SCN collaboration and collective efficiency. All SCNs will be represented by their dyad leaders on the SCN Leadership Committee where they will share their challenges and plans to collaborate as the opportunities present themselves. In addition, SCN leaders will meet in sub-groups to identify common needs and interests in treatment or prevention strategies, or specific care pathway development. SCNs will also identify and build shared resources and infrastructure wherever possible and where common needs dictate shared solutions. Finally, a small number of high priority and high value "cross-cutting provincial projects" of SCNs will be identified. The goal is to do a small number of important & significant projects to impact the clinical outcomes for patients across the care continuum.

What will SCNs deliver?

- Design and support **equity** in **high quality health care** for all Albertans
- Improve **population health** and provide effective **support for primary care**
- Make patient **safety** a priority
- Ensure continuous **quality improvement**
- Ensure **appropriate** clinical practices
- Foster **important research** that has an impact on patients
- Focus on **patient outcomes**
- Ensure appropriate use of **existing and innovative health technologies**
- Ensure **value for money** by evidence-informed investment and disinvestment

- **Engaged patients and public** in designing care and achieving prevention
- Provincial **teams enjoying personal satisfaction** from helping more patients
- **Plans for medium- to long-term sustainability** for the health system
- **Linking from the bottom to the top** in the health system in Alberta

INTRODUCTION

Alberta Health Services (AHS) is an integrated health care organization. It aims to support and provide evidence-based, patient-centered care of the highest quality that is accessible, innovative and sustainable. These goals will only be achieved with strong, well-supported clinical leadership and teamwork that engages clinicians, partners and all stakeholders in designing and delivering such care.

AHS intends to position clinicians in a key strategic roles within the organization; not only leading on the front line but also leading the development of strategies to improve care across the Province. Strategic Clinical Networks (SCNs) are the premier vehicle for engaging front-line clinicians and partners to develop and drive clinical quality standards, provincial equity and sustainable improvement in healthcare.

This 'Primer' is a working document that describes the desired characteristics of high-performing health systems and Alberta's exceptional landscape of strong clinical programs, networks and partnerships already in place, that collectively provides the background rationale and the recipe for the concepts, roles, responsibilities and structures of SCNs.

THE TOP TWENTY CHARACTERISTICS OF HIGH-PERFORMING HEALTH SYSTEMS IN THE WORLD

Supported by the Institute of Health Economics (IHE), AHS held a series of three major symposia in 2011 to help define the characteristics of the world's highest performing health systems and to serve as a roadmap for the future AHS. Experts from a number of countries provided their insights into what has been learned internationally in creating and sustaining high-performing systems of health. It was agreed that Alberta could be the 'beacon of success' that the world needs, if it were to adopt the principles that were discussed. The following 20 characteristics[1] of high performing systems were identified:

1. Success is defined and terminology is clear for all stakeholders. Quality is defined.
2. Physicians are engaged at all levels.
3. ‘Innovation’ is defined and embraced: people, processes, and systems. Not just technologies/drugs.

[1] See http://www.ihe.ca/publications/library/2011-events/ahs---becoming-the-best-building-a-sustainable-system/

4. People work collectively in teams and networks - that lead a culture of innovation across boundaries (people, processes, systems, services).
5. People test innovation; it's OK to fail.
6. Champions of change (and leaders) are identified, developed and supported.
7. There is an engaged and empowered public (the public is actively involved).
8. Evidence-informed treatments and approaches are used wherever possible and/or are pursued through research.
9. There is fusion of health, environment and education in a planned way: the health system addresses broader determinants.
10. The system improves value (and value for money) for all as a major goal.
11. Good information for decisions is essential: real-time evidence is key.
12. Prevention is 'part of doing business' (it is everybody's job).
13. The system invests to buy positive changes.
14. There is a sound human resources system.
15. Positive incentives are used to encourage all stakeholders.
16. Performance measurement with feedback is directed to those who need it. Measure for goals and beware of what is not measured.
17. Strong and engaged primary care and strong community care is mission critical.
18. Planning models, with dedicated and sustained research, are operational.
19. Be patient but always keep the patient in mind. Meet or exceed patient expectations as a top priority.
20. 'Top down' meets 'bottom up' in all ways (structures, programs, goals).

THE LANDSCAPE OF AHS QUALITY IMPROVEMENT

There is little question that "quality is everyone's responsibility" within the healthcare system and with a workforce of over 90,000 employees and 7,400 physicians, AHS is well positioned to make an important difference in the quality and safety of the healthcare services provided for patients, clients, residents and families within Alberta. Quality improvement is a continuous process which includes identifying issues and opportunities, applying well-thought-out and often innovative solutions and then learning from the process and resulting outcomes. This requires skill, knowledge, appropriate collection, use and application of data, inter-professional collaboration and the engagement of patients as partners in their care. However, while the right mix of these and other important ingredients will help improve the system, it is also necessary to ensure that capability and capacity are built within the system – including a quality and patient safety culture – to ensure improvements are sustainable.

In 2010/2011, the Government of Alberta tasked Alberta Health and Wellness (AHW) and AHS with creating the best performing, publically funded health system in Canada. Together, they established a 5-Year Health Action Plan, *Becoming the Best*[2], which identified four clinically focused improvement areas, together with key initiatives and measures of success to 2015:

- Be healthy, stay healthy;
- Strengthen primary health care;
- Improve access and reduce waiting times;
- Provide more options for continuing care.

These form the basis of cross-cutting (and foundational) transformational improvement programs that support the service or site specific quality improvement efforts in all of the services and programs AHS provide.

There have also been several other strategic clinical and operational improvement programs in AHS (e.g. Care Transformation, Emergency Department Flow, Safety Reporting and Learning System); programs that have produced a number of recommendations for system improvements. These programs have engaged hundreds of clinicians and administrative leaders within AHS during their development and evolution to date. Strategic Clinical Networks will build on that success.

AHS needs to establish strong strategic focal points in these areas that will realize the benefits that flow from a province-wide health care organization.

DEFINING QUALITY IN ALBERTA

While there are many definitions of "quality" and many different quality frameworks nationally and internationally that separate access, quality and cost-effectiveness metrics, the Health Quality Council of Alberta (HQCA) has published an inclusive matrix of quality that has been endorsed provincially. These six dimensions of quality are: *effectiveness, efficiency, safety, accessibility, appropriateness, and acceptability* and each has specific definitions that can inform the development of indicators and metrics of success for SCNs. Evidence shows that high-performing health systems need to have clearly endorsed and understood language and definitions of goals, benchmarks

[2] See http://www.health.alberta.ca/initiatives/5-year-health-action-plan.html

and targets: *the HQCA quality matrix is endorsed as the standardized framework for monitoring SCN progress*.[3] (see page 16 for a 'ranking' of these quality dimensions).

CONVERTING STRATEGY TO ACTION IN AHS

AHS developed a five-year health plan[4] to support the goals of the *Becoming the Best: Alberta's 5-Year Health Action Plan*. In addition, there are a number of service-specific strategies that are considered priorities for development and implementation, including cancer care, mental health and chronic disease management.

AHS is establishing a system to cascade improvement targets and measures to operational leaders and Zones, and to integrate the implementation plans from key service strategies into 'local' Zone Integrated Plans (ZIPs). Each plan will provide a clear direction map for implementing the provincial priorities and local initiatives to meet the identified need.

Even with these efforts to integrate planning, uncertainty remains on how strategy leads integrate with the clinical and operational leadership. This primer describes how we will integrate clinical leadership within Zones, provincial clinical services and Networks, with strategy portfolios and research.

CLINICAL NETWORK BACKGROUND

In August 2011, the following eight clinical networks (CNs) were active in AHS: Bone and Joint, Cardiac, Critical Care, Emergency, Surgery, Addiction and Mental Health, Respiratory, and Cancer. Neurosciences/Stroke, Child Health and Women's Health were under review and consideration for development.

These CNs were formerly overseen by the Alberta Clinician Council (ACC), with a view to ensuring complementary planning, processes, and activities. The first CNs targeted how to improve health care delivery; enhance the patient's experience; improve access and outcomes; increase staff satisfaction; and, reduce variability in care. Not surprisingly, they identified many of the same issues as did the "transformational improvement programs" and provincial strategies. Some networks embarked on 'fixing' the gaps, and in doing so developed strategic plans that included local engagement, showing how CNs can be a valuable resource to AHS, one that can help implement quality improvement strategies for their relevant populations in every Zone. Based on

[3] See http://www.hqca.ca/assets/pdf/Matrix/20.pdf and http://www.hqca.ca/assets/pdf/User/20Guide/20R290506.pdf

[4] See http://www.albertahealthservices.ca/3238.asp

their early success, there is great potential for a stronger version of CNs to become the critical link between broader provincial service strategies, cross-cutting improvement initiatives, and Zones. As well, they have strong provider and research engagement structures.

THE ROLE, MEMBERSHIP AND FUNCTIONS OF THE STRATEGIC CLINICAL NETWORKS (SCNs)

Through a consultative process with existing leaders of Clinical Networks (CNs) and a broader audience of senior leaders in AHS, it was agreed in 2011 that CNs should be expanded and re-designed to align and empower teams of provincial providers and strategy leaders with the appropriate accountability, responsibility and authority for combined clinical, strategic and tactical decision-making in AHS.

The SCNs' role will build on and formalize the mandate of clinical networks (CNs) to:

- improve population and public health for all Albertans
- innovate and, with evidence, improve all six dimensions of quality [effectiveness, efficiency, safety, accessibility, appropriateness, acceptability] in well delineated patient populations
- address equity, population and geographic variations in the prevention and delivery of care
- establish cross-cutting improvement programs between SCNs where foundational systems are needed
- integrate strategic research and education into programs that seek, develop and support on-going system improvement and sustainability.

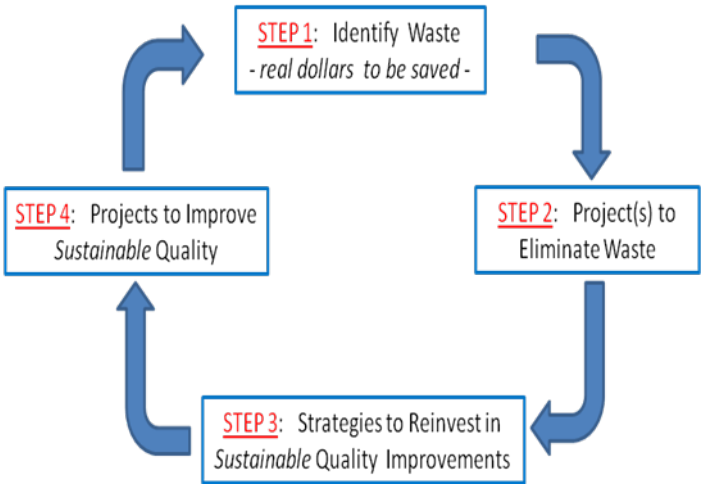
Specifically, SCNs will judge their success *based on evidence* to achieve the Institute for Health Improvement 'triple aim' of improving the health of the population, enhancing the patient experience (quality, access and reliability) and decreasing case costs. They will do this by systematically and strategically measuring and improving:

- prevention of disease and proactively lessen specific burdens of illness in Alberta
- patient outcomes (effectiveness)
- patient accessibility and acceptability (patient satisfaction & experience)
- clinical practices, including appropriateness of care
- efficiency and reduction in unjustifiable clinical practice variation
- patient safety
- value for money

Building on achievements of Clinical Networks, SCNs will engage and empower providers as well as create aligned partnerships between clinicians, researchers, community colleagues, patients, and AHS operational and strategic leaders, with a shared accountability to **plan strategically**, develop and deliver measurable improvements in the consistency, quality and safety of all health promotion, disease and injury prevention, and care services in Alberta. Over time, service delivery needs and solutions will be identified, prioritized, planned and delivered according to pre-agreed provincial standards of care.

As noted above, in an extremely important role, SCNs should strive, with evidence, to **add significant 'value for money'** to AHS, to its partners and to the public*. As they mature, SCNs will acquire greater responsibility in establishing value for money improvements to quality, safety and sustainability (see maturity framework). These gains will be achieved through the redesign of care and innovation across the continuum, and driving performance improvements for the monies invested.

**Note: As they begin to operate, each SCN will be supported to lead at least one major 'reassessment project' in the province; whereby they ideally identify and potentially eliminate harmful, outdated, ineffective and/or inappropriate processes, procedures, technologies, drugs or care programs. This relatively unprecedented, targeted sustainability approach is based on the ability of clinical experts to make informed decisions that will not negatively impact the quality of patient care, permit disinvestment and, as appropriate, reinvestment.*



Functions

SCNs will be formal multidisciplinary groups that have a provincial scope and mandate to design and recommend improvement plans that will drive the achievement of targeted, measureable, and sustainable clinical and operational improvements in health

and healthcare service delivery in targeted populations within Alberta. They will embed research initiatives and knowledge translation activities to achieve wellness at every age and to become the best, most innovative service delivery entity in Canada.

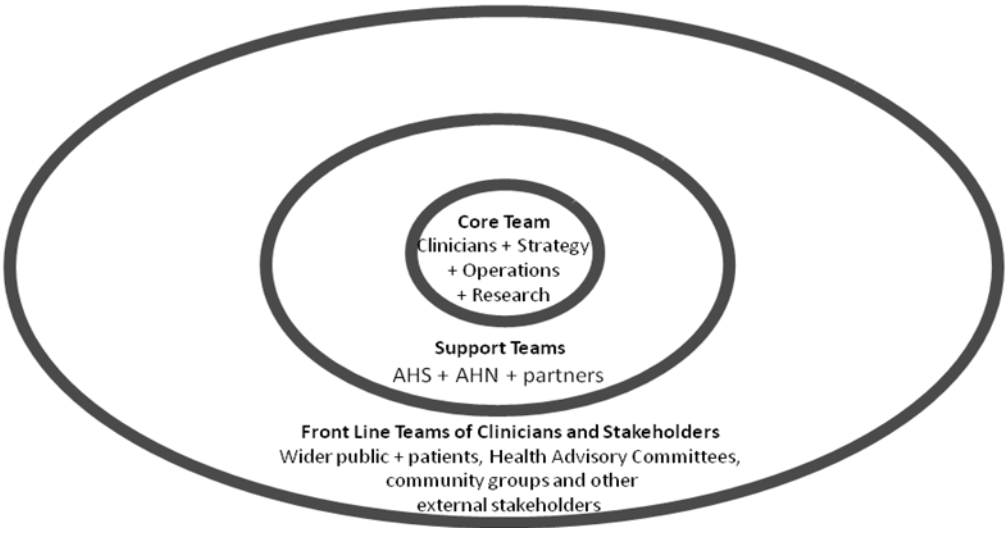
By engaging clinical experts, patients, front-line workers, researchers, policy makers and members of the general public across Alberta, SCNs will:

- improve value for money in AHS
- with Zones and provincial clinical services, design, implement, evaluate and optimize innovative service delivery models that help achieve Tier 1 targets
- support and, where applicable, lead population and public health initiatives- either as individual SCNs or a cross-cutting initiative of all SCNs in collaboration
- with Zones, provincial clinical services and communities, undertake a medium- and long-term view of “local” needs and service development to drive quality and sustainability.
- develop evidence and best practice based care models and pathways for dissemination and implementation in AHS
- develop and publish a core set of measures of performance across quality dimensions
- recommend best use and allocation of available resources
- as part of an agreed-upon annual cycle of strategic planning, develop agreements with Zones and provincial clinical services, including the commitment of resources on new interventions, anticipated outcomes and change management needs.
- improve job satisfaction, efficiency and effectiveness of front line workers through better, timelier information and tools, improved support and mechanisms of suggesting on-going improvements of value to their patients and to them.
- establish a few appropriate public and population health indicators of success in 2012/2013 and achievable 3 and 5 year targets will be encouraged.

Membership and Leadership Structure

A dyad comprised of a Senior Strategy Director (without an operations role) and a Senior Medical Director, actively involved with clinical practice, will co-lead each SCN. The leadership dyad will work within a core membership that includes leaders from Zones, provincial clinical services and front-line clinicians. They will be supported by a team of professional advisors and experts.

Figure1: SCN Membership



The core membership will vary according to the nature and needs of the population to be served but, in general, each SCN would have a core team comprised of up to 25 strategic, operational and clinical content experts (physicians and other health professionals) and patients who are appropriate to the respective population focus of the SCN. In addition to the core team, a broader circle of participants will include key AHS administrative and operational designates; relevant community-based partners; Alberta Innovates Health Solutions (AIHN) and Alberta Health Network (AHN) researchers, and patient representatives. The core membership will include one designated policy advisor from AHW who is familiar with the content area of the Network.

In consideration of the time contributed by members, there will be an honorarium for participation for all those who are not employees or designated leaders within AHS or AHW, but who serve as expert 'consultant members' to the Network.

Membership on the SCN core team of knowledgeable operational directors as well as Zone and provincial clinical services administrative and/or medical leaders, is essential, as each SCN will have responsibility to recommend province-wide strategic plans with Zone or other clinical operations leaders and to AHS Executive (with operational impacts being considered). Each SCN also must actively engage researchers; have an effective knowledge translation and management strategy, and an embedded health technology assessment strategy that actively turns research and best practice knowledge into action via continuously updated care paths. SCNs will work collaboratively with relevant Zone clinical departments and sections, and with senior

and facility Medical Directors, in order to ensure the essential engagement of physicians and other practitioners.

The SCN is also intended to become a vehicle for a wider membership structure, in which front-line staff is able to join the Network as contributing members, sit on SCN program committees and/or participate in SCN working groups, where they can provide input to help generate best practice, and actively participate in the implementation and spread of quality improvements. A membership model including on-line resources will be included in the anticipated roll out. Being a member of an SCN will ideally evolve into being seen as an opportunity this is valued by individuals and groups and a role with distinction and respect.

Definition of SCN Members

Within the Strategic Clinical Network (SCN) the term 'Member' will be used to describe the broad community of interest formed by that SCN. Members will be led by a core team who will work on behalf of all Members to advance their SCN. For example, the core team of function-specific leads will ask designated Members to work on various permanent and ad hoc working groups. Each SCN *may* include Members who lead the following functions:

1. Patient/Public Lead
2. Community Lead
3. Strategic External Partnerships Lead
4. Practitioners (Primary Care and Public Health)
5. Clinician Leads
6. Research Lead (mandatory)
7. Innovation Lead
8. Population Health Lead
9. Policy Advisor Lead (from AHW)

Principles Guiding SCN Membership

1. Membership must be broad and inclusive extending to the front lines and into communities across the Province.
2. As above, each SCN will have an expanded membership structure whereby front-line clinicians will be engaged and will actively participate on SCN committees and/or working groups to provide their expertise as consultants that will develop best practice and assist in the implementation and spread of quality improvement initiatives throughout AHS.
3. Membership of each SCN will be variable and customized based on the nature and focus of the SCN.

4. Every Zone and provincial clinical service must have an administrative or clinical lead for each SCN and those leaders should be empowered to make decisions on behalf of their portfolio.
5. A patient engagement strategy to ensure a strong perspective to SCN deliberations and priority setting should be part of the core committee of every SCN; alternatively, a well-formed, systems-thinking member of the public. This could be a few patients on the core committee or a potential group of advisors brought together to assist with policy direction & priority setting. Each SCN will likely need several identified approaches to ensure meaningful engagement of the public.
6. A policy lead from Alberta Health & Wellness will be on the Core of every SCN (appointed by AHW).
7. A research lead (*tentatively termed SCN Scientific Director) will be a core member of every SCN.
8. Core membership should not exceed 25.
9. Core Members must be endorsed by the executive dyad accountable for SCNs.
10. Core members normally should be appointed for staggered terms of 2-4 years, with terms renewable once based on the recommendation of the dyad co-directors.
11. No more that 20% of the core committee should retire from the core in any given year in order to ensure continuity.
12. Beyond core members, as part of their engagement and operational strategy, it is expected that every SCN will have several ad hoc working groups.

SCN Core Member Roles

1. SCN Senior Medical Director, Senior Strategy Director & Executive Director
    - Lead strategy development and implementation of provincial strategies
    - Responsible for the overall clinical and strategic leadership and expertise of all working groups. The Executive Director manages staff and assures Network performance against objectives
    - Champion and communicate Network priorities
    - Recruit members extending out to the front lines and into communities
    - Ensure appropriate engagement of clinicians, patients, communities and partners
    - Collaborate with other SCNs
    - Collaborate with stakeholders (internal and external) and partners with provincial leadership to effectively implement the priority initiatives
    - Collaborate with relevant Zone and provincial clinical services administrative and clinical leads to ensure engagement of physicians and other front-line clinicians

2. Patient Lead
    - Responsible for reflecting patient and family perspectives and provide constructive input to SCN priorities
    - Serves a collaborative role in the decision-making process by considering the values and needs of the patient
    - Brings the insight and perspective of the target population
    - Proactively builds membership in the SCN (i.e. Patient Advisory Council for every SCN)
3. Community/Public Lead
    - Responsible for reflecting the community perspective and providing constructive input into SCN priorities
    - Serves a collaborative role in the decision-making process by considering the values and needs of the community they represent
    - Represents a diverse population and geography
    - Proactively engages the public in the work of the SCN (i.e. Community Advisory Council for every SCN)
4. Zone and Provincial Clinical Service Leads (Administrative and Clinical)
    - Provide information and expertise to support the SCNs in the development of service delivery models and pathways
    - Proactively align annual Zone and service priorities with those of the SCN
    - Collaborate with all Zone and service administrative and clinical leads to ensure the successful engagement of all physician and non physician clinicians
    - Ensure proactive implementation of approved SCN projects in their respective Zones and Provincial Clinical Services
5. Strategic External Partnerships Lead
    - Identifies and engages unique partners of value to the SCN
    - In collaboration with other SCNs, identifies and engages key strategic partners of value to all SCNs and to AHS (AHN, AIHS, CIHR, etc).
6. Research Lead - An "SCN Scientific Director"
    - Builds a community of research support for the SCN from bench to bedside to community and back again
    - Establishes and facilitates a provincial research network that attracts external funding and is doing research projects of relevance to the SCN
    - Establishes the process that ensures the right research is being conducted in a timely manner (sets research priorities and attracts adequate financial and infrastructure support to achieve those priorities, with partners)

- Collaborate with the AHN and other academic partners to identify interested researchers and link them to appropriate front line teams to embed research and knowledge translation within AHS.

7. Innovation Lead:
    - Establishes innovation working groups to proactively identify and import innovations from external sources and 'mine for innovations' internally
    - Collaborates with the Academic Health Network, academic and government partners to commercialize potential innovations
    - Develop a mechanism for explicit identification of potential new intellectual property with value for all parties
8. Practitioner Leads - Primary Care and Public Health
    - Bring the views of their profession to discussions and proactively bring expertise to discussions to guide decision making
    - Engage colleagues as SCN members to join working groups as required
    - Engage broad membership by communicating SCN activities and brings feedback to improve
9. Clinicians (other than Physicians)
    - Brings the views of their profession to discussions and proactively brings expertise to discussions to guide decision making
    - Engages colleagues as SCN members to join working groups as required
    - Engages broad membership by communicating SCN activities and brings feedback to improve
    - Proactively engages other clinicians in the work of the SCN (i.e. Clinician Advisory Council for every SCN)
10. Policy Advisor Lead (AHW):
    - Supports AHS Executive and the SCN in managing relationships with Alberta Health & Wellness
    - Proactively identifies policy issues and opportunities and communicates them effectively to optimize decisions both up and down

FORMAL ENGAGEMENT OF PARTNERS

The SCNs will have a number of key partners. As a priority, patients and communities will be proactively engaged in each SCN as expert groups or in a local advisory capacity, becoming a member within the SCN.

Through the Academic Health Network (AHN) and AHS relationships with all academic institutions, SCNs will define a formal partnership between networks in AHS and the Universities and Colleges in Alberta - with researchers sitting on Core and support

teams of SCNs as defined above, and support, programs and projects being supported "in kind" by each partner as much as possible.

Another key partner of AHS in supporting SCNs will be Alberta Innovates-Health Solutions (AIHS). The AIHS mandate is to actively facilitate research and innovations that target important issues of health and health care of Albertans. AIHS will have funding programs in personnel, platforms and knowledge translation; all will be important to SCNs during their start-up and operations. It is anticipated that a formal memorandum of understanding will be signed between AHS and AIHS that will articulate the synergies of the relationship and the roles of each partner in achieving the goals of Alberta's Health Research and Innovation Strategy (AHRIS).

SCNs will also enable AHS to engage with Government, as required, where synergies need to be achieved between policy and practice. SCNs will actively work with AHW and other key Ministries via the strategy and planning leads, and ad hoc as required - thereby enabling strong synergy of policy enablers with quality improvement and prevention efforts of SCNs.

In addition, key professional organizations, disease or patient groups, and any agencies working alongside health, such as children's services in Alberta, will be engaged. Other local, provincial and national health foundations, as well as national and international funders of health research and knowledge translation will also be engaged where these map across to key networks and formal links will be created wherever possible.

THE LANDSCAPE OF HEALTH RESEARCH IN ALBERTA

In August 2010, the Ministers of Alberta Health and Wellness (AHW) and Advanced Education and Technology (AET) launched the *Alberta Health Research and Innovation Strategy* (AHRIS)[5] that called for greater alignment of a multi-stakeholder health research agenda in Alberta. The agenda will address the needs of the health system, provide a greater focus on how research can contribute valuable new knowledge and facilitate more rapid knowledge translation in Alberta, including 'value-added' new technologies. Alberta's overall goals of research include:

- improved health outcomes,
- an improved health delivery system and
- an improved economic system created by diversified opportunities.

[5] See http://www.health.alberta.ca/initiatives/cross-ministry.html

Two high-level strategic priorities were identified: Wellness at every age and innovative health service delivery, with these priorities supported by three pillars – highly skilled people, knowledge transformation, and innovation.

In 2011, under the auspices of Campus Alberta, the "Academic Health Network" (AHN) was formed by AHS, the University of Alberta, the University of Calgary and their Faculties of Medicine, to define a coordinated provincial approach and strategy for academic medicine, including research, education and patient care, and to help achieve the goals of AHRIS. There is an opportunity to align the goals in the AHRIS with the initiatives in the AHN and via SCNs.

THE RESEARCH AND INNOVATION MANDATE OF SCNs

As noted above under “SCN Functions”, each SCN will have a specific mandate to develop a focussed provincial **research program** in collaboration with academic partners; a mandate to create new knowledge and translate it into measurably improved health and health care for Albertans. This will normally involve developing health research capacity and executing prioritized applied clinical research, health services, systems and policy research, and/or population and public health research in selected sub-populations of interest within each SCN. It is expected that each SCN will access as many resources for research support in Alberta (e.g. AIHS), nationally (e.g. CIHR) and internationally, through normal competitive processes, by striving to 'be the best'. When SCNs achieve their full potential, the richness of their memberships, focussed data sources, data quality and their analytical supports will be a major advantage in any/all research competitions and will aim to leverage the fundamental clinical support structure that AHS will be providing for research, many-fold.

Research topics and projects are will be recommended by a "Scientific Director" within each SCN and an engaged (but voluntary) provincial research network that he/she facilitates to collaborate within each SCN. SCN research priorities will be established and revisited regularly based mainly on demonstrated need(s) of its populations of interest. Sharing strategic research resources among SCNs will be encouraged.

Defining Research Outputs in SCNs

Proactive dissemination of research findings with rapid uptake, including peer-reviewed publication of results is one of the major expected outputs of all AHS research. There are a number of measureable research outputs that SCNs can classify into 6 categories: creating new knowledge; creating research capacity; informing decision-making; providing health benefits; improving health system effectiveness and efficiency; and broader economic and social benefits. Beginning in late 2012, a small number of indicators will be endorsed by AHS to quantify the effectiveness of AHS supported

research. Categories of indicators will include a combination of academic excellence, effectiveness of AHS partnerships and the effectiveness of knowledge translation in improving the health of Albertans and sustainability of health care.

Defining "Innovation" in SCNs

Quite simply, the word 'innovation' technically means something 'new and improved'. In the health and health care context, as broadly defined, an innovation can be a device, a drug, a technique, a method, a system or a service. Innovations can be 'procured' from outside or they can be developed 'within'. Ideally, each innovation, before it is defined as such in practice would have actual evidence of its 'value-add' over existing approaches and not just advocacy that 'new is better'. Generating that evidence, where it largely doesn't exist, is a huge opportunity for SCNs and for Alberta. Validation of innovations will have enormous value to Alberta and to all potential users.

In Canada, industry and governments have added an additional dimension when considering “innovation” as an end. In addition to seeking innovative improvements that are 'novel and valuable to patients/the public with evidence', each innovation (and specifically those novel concepts developed and validated internally) should be considered early in its lifespan for its potential to be commercialized. That is, there should be a mechanism for explicit identification of potential new intellectual property with potential value. This type of 'mining for value' will require specific focus and a unique skill set (shared between SCNs) that should expand as SCNs mature.

Each SCN will be encouraged to develop a focussed '**innovation program'**, where innovation is any new evidence-informed, value-added device, technology, system or service. Evaluating external innovations that potentially add value to patients and to AHS will be encouraged along with the systematic identification, “mining”, development and potential initial commercialization of innovations created within AHS. Again, this activity is encouraged to take place in close collaboration with academic partners.

Prioritizing Research and Innovation in SCNs

There are five major deliverables for SCN research and innovation (with evidence) that will be used to prioritize, rank and fund research and innovation by AHS:

- Improving the Health of Albertans: Preventing Diseases and Injuries
- Improving the Quality of Care (six dimensions of quality)
- Decreasing Unjustifiable Variances in the Quality of Care
- Improving Value over Time
- Active Knowledge Translation of Improvements into Common Practice in Alberta

Shared Gains from Innovation and Research as an Incentive

It is clear that successful innovation and research in AHS should strive to create a "multiple win" scenario in Alberta. The teams supporting each SCN will create and synthesize new knowledge that will improve health services, and translate this into changes that measurably improve health and quality of health care while improving value and sustainability for Albertans. The main beneficiaries should be the public and patients served by AHS and Alberta's medical professionals, but those working within the system and the system itself should also see perceptible gains from successful innovation and research over time.

A key principle in ensuring that that is the case will be the notion of 'shared gains' from research and innovation. More explicitly, successful innovation and applied health research should improve the quality of care in one or more dimensions (defined below), with value being added to those targeted quality dimensions. Several dimensions of quality can be quantified and several have major monetary implications to AHS.

A proposal is being considered in which research informed reassessment that results in financial gains would, by policy, see some portion of savings reinvested in a research and innovation seed-fund in AHS. Another proportion could be reinvested in priority quality improvement areas of the SCN that sponsored the research and some reinvested in the operational portfolios that supported that research. This 'distribution-of-value' policy would serve as an incentive to all of the parties (policy leads, dyad leads, SCN clinician members, researchers and operational leads) to support applied research and to help quantify its benefits.

HOW WILL SCNS DEFINE QUALITY IMPROVEMENT?

As noted above - "Health Care Quality" in Alberta has been defined by the HQCA as:

1. appropriateness (of investment or disinvestment)
2. safety (reducing or eliminating harm)
3. effectiveness (outcomes)
4. efficiency
5. accessibility
6. acceptability (patient experience)

These dimensions are all important in a high-performing health system, and all are linked to one another. Nonetheless, some dimensions of quality are of greater immediate value to AHS and its partners; specifically, dimensions 1 to 4 have major implications to health system sustainability and require more urgent attention.

In 2011, AHS adopted the AHS Improvement Way (AIW) in order to develop a common, unifying approach to align a variety of quality improvement methodologies including LEAN, Six Sigma, AIM, and PDSA. The AIW will be used specifically by SCNs for their work (where appropriate).

PROVINCIAL QUALITY IMPROVEMENT BY SCNS

As noted throughout this document, the SCNs are intended to be the major provincially focussed quality improvement vehicle within AHS. They are thus expected to have a robust quality improvement agenda with prioritized and targeted dimensions of quality improvement within specific projects. These will aspire to quantify improvement against existing benchmarks, ideally in large populations of interest, in which gains can be the largest. SCN projects, by definition, are expected to be multi-zonal in scope and/or provincial in nature. They should be evidence-informed and prioritized based on the scale of potential impact that they can achieve for patients and the population as well as for AHS and its partners. AHS will provide utilizable, current and accurate data to help inform SCN priorities based on: burdens of illness, resource utilization variances and geographic disparities. While it is not the intent of AHS to be prescriptive of SCN activities or project priorities, **each SCN will be encouraged to initially focus on up to three projects**: **any one of which could be identified as a 'signature (highest profile, highest impact) project'.**

The top priority for SCN consideration should be a high impact provincial 'reassessment project' focussed on quality improvement in dimension #1 (appropriateness) - which would aim to reassess and potentially stop something that is not adding clear value to patients/the public. This project should also aim to quantify the value being captured by their project so that that value can potentially be reinvested by the SCN and AHS in services that do add significant value to that (or other) populations.

A second project of each SCN should support Zones and provincial clinical services in achieving current Tier 1 targets. In this and all SCN projects, SCNs will be challenged to help Zones and services improve access, without incremental costs and/or resources wherever possible - probably by gains in efficiency or effectiveness.

A third project could be focussed on 'shaping demand' for access, or to a system, or service in the future. Rather than simply providing access to services by increasing services and/or improving the supply of services, SCNs should proactively try to address the demand side of a population as far 'upstream' as they can. Developing robust prevention approaches, and developing risk-adjusted appropriateness criteria for triage into high demand/high variance services for sub-populations of interest, are further examples of possible focus for SCNs.

Finally, all SCNs will be encouraged to have at least one on-going 'group SCN project' with most (if not all) other SCNs. These 'cross-cutters' will, no doubt, be defined by the biggest group needs and opportunities. These initiatives will help to achieve economies of scale, leverage common resources, and achieve highly visible impact for Albertans.

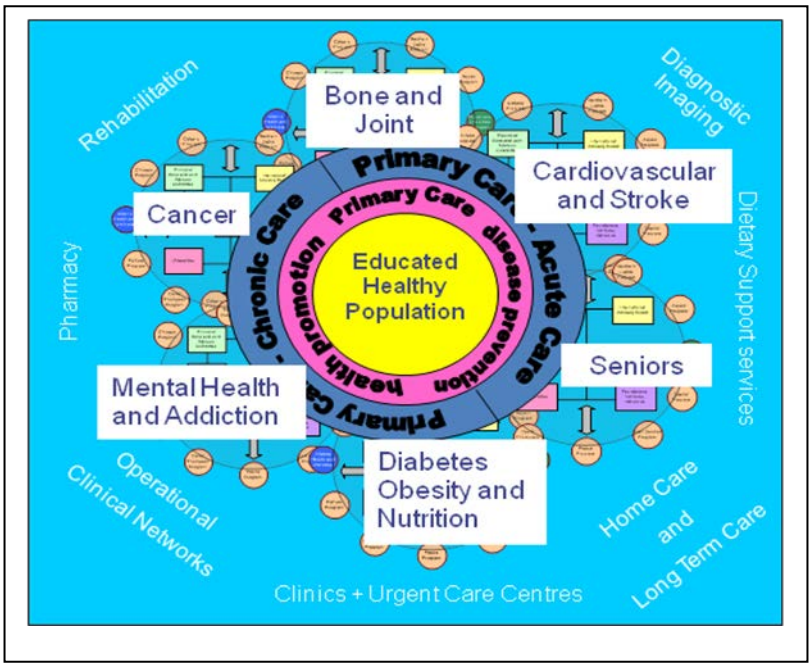


Figure 2 - Schematic of the collaborative model of SCNs (6 SCNs as examples).

The quality improvement efforts of the SCNs will be supported through a combination of capacity building (e.g. AIW training) and assigned expertise from the department of Quality and Healthcare Improvement. Local quality improvement teams in the Zones will be available to ensure alignment with provincial direction and local implementation of initiatives.

HOW WILL SCNs BE GOVERNED?

Accountability for SCNs is shared between the Executive Vice-President (EVP) & Chief Development Officer (CDO) and the Executive Vice President (EVP) & Chief Medical Officer (CMO). There will be co-leadership at the next level between an Associate Chief Medical Officer, SCNs & Clinical Care Pathways and a Vice President, SCNs & Clinical Care Pathways. Each individual SCN will be jointly led by a Senior Medical Director and Senior Strategy Director operating within the AHS Dyad Leadership model and supported by an Executive Director.

Dyad leaders are selected through a transparent “expressions of interest” and interview process. They are chosen based on evidence of being provincially endorsed leaders of their respective communities, with strong administrative and leadership backgrounds. Executive Directors are skilled administrative leaders with strong management expertise.

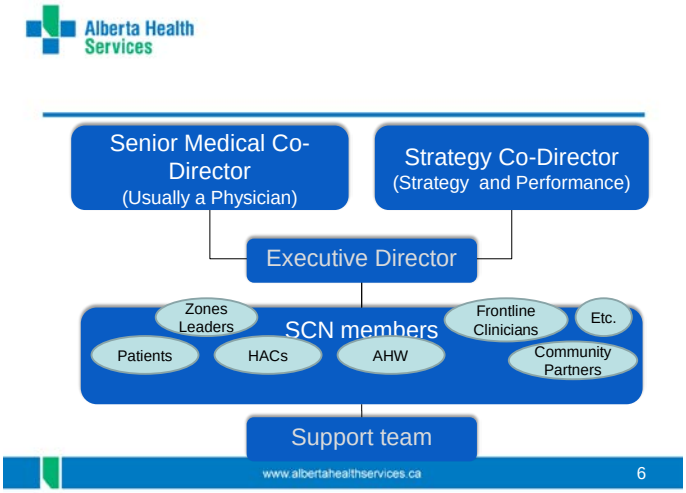


Figure 3 -Dyad Leadership

A Strategic Clinical Executive Committee will be established to ensure collaboration between SCN Co-Directors, Zone and provincial clinical service leads and key partners. This committee will be responsible for the strategic direction in the design and innovation of quality care within Alberta Health Services. Co-chaired by the EVP & Chief Development Officer and the EVP & CMO, specific functions of the Strategic Clinical Executive Committee include the following:

- Oversee the development of a joint strategic plan between AHS and AHW, which is organized in 5 year time frames. These plans should improve health; demonstrate quality care, and outcomes improvement within available resources.
- Regularly review, harmonize, and annually approve the strategic quality improvement and innovation plans of each SCN updated annually, with associated improvement targets and initiatives.
- Approve and publish care models and pathways of care for practitioners and patients, which articulate standards of care in quality and access, coming forward from the SCN groups.
- Every 2 – 3 years, develop and agree upon system measures which underpin this strategic direction of SCNs, and for key population outcomes.

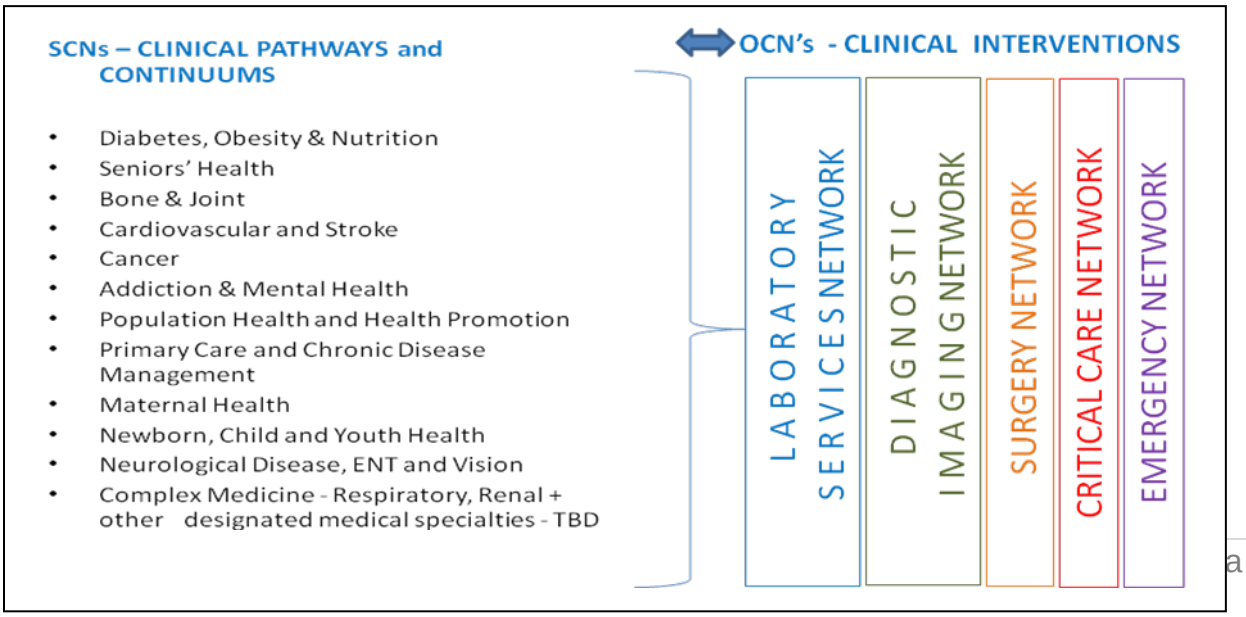
- Develop and approve comprehensive clinical measurement strategies for SCNs and oversee the development of AHS performance dash boards
- Develop comprehensive knowledge transformation supports which enable evidence-informed care models and interventions to be adopted.
- Receive results of Health Technology Assessment and Reassessment recommendations from each SCN and submission if required to the provincial Health Technology Assessment process
- Oversee development of research priorities in each SCN and for cross cutting platforms of knowledge and research excellence.
- Develop incentive frameworks and accountability, performance mechanisms which align with the strategic directions in innovation and improvement of care.

A customized approach for each SCN is expected. SCNs will work collaboratively with relevant zone clinical departments and sections, and with senior and facility / community medical directors, in order to ensure the essential engagement of all practitioners.

INTERFACING 12 SCNs AND UP TO 5 'OCNs' (OPERATIONAL CLINICAL NETWORKS)

There will be 12 Strategic Clinical Networks and up to five Operational Clinical Networks (OCNs, explained below) developed in three phases, based on both needs and organizational readiness. A number of pre-existing Clinical Networks and Provincial Portfolios are being transitioned into these new structures which will interface in a matrix structure as shown below. All of these networks are intended to proactively identify and eliminate potential care gaps and to ensure seamless approaches to both acute episodic interventions and to chronic disease management.

Figure 4 - The SCNs and OCNs and their interactions



Three Phases of Development

Phase 1 - (to be established by June 2012) - The initial 6 SCNs align strongly with the Alberta 5-year Health Action Plan and current Tier 1 Performance Measures.

- Diabetes, Obesity & Nutrition
- Seniors' Health
- Bone & Joint Health
- Cardiovascular and Stroke
- Cancer
- Addiction & Mental Health

Three clinical networks that have been focused on operational quality will also be strengthened in 2012, with two other essential provincial clinical services possibly being added to this group. These three key clinical services will be called "Operational Clinical Networks" (OCNs) as they provide services or interventions at points in care pathways of patients from all SCNs.

The OCNs are:

- Surgery - to include trauma and anesthesia
- Emergency Care - to include all pre-hospital care
- Critical Care - to include all life threatening infectious diseases
- (Diagnostic Imaging (under consideration))
- (Laboratory Services (under consideration))

Each OCN will be encouraged to develop provincial standards and improvement efforts around processes and, utilizing workforce models, to drive excellence in efficiency and effectiveness for the services that they provide. This is a different focus from the care continuum and population-centred improvement effort located within the SCN mandate. Each of the OCNs will also be encouraged to have 3 priority projects, similar to those described for the SCNs. Their signature project will focus on achieving a significant provincial standard for their areas (i.e. implementation of a Clinical Information System or priority-ranking system).

Each SCN will interface with, and will be strategically and functionally supported by interacting with these OCNs to achieve provincial standards. SCNs will also interface with other key functional operational programs and services via zones, such as: hospitals, ambulatory services, community services and Emergency Medical Services.

Phase 2 - (to be established by Fall, 2012) - Engage existing provincial leaders to establish two essential SCNs that are intended to 'cross-cut' all other SCNs:

- Population Health and Health Promotion
- Primary Care and Chronic Disease Management

These two SCNs will be established to link the strategies of clinical leaders in those two communities to structures and functions within AHS - including the programs and working groups of all SCNs and OCNs. The goal is to achieve seamless care for people across care pathways as they move from community care to acute care and back again. Clear definitions of roles and responsibilities in managing and leading health, triaging and managing episodic care and complex chronic care is expected to emerge from these collaborations. Every SCN should strive to help every Albertan have an identified primary care "home" in the community - where prevention strategies are implemented and where uncomplicated episodic care and chronic care is managed.

Phase 3 - to be established by March 31, 2013 - Four equally important SCNs that will require more time for provincial alignment, development and identification of resource needs:

- Maternal Health
- Newborn, Child and Youth Health
- Neurological Disease, ENT and Vision
- Complex Medicine: Respiratory, Renal, GI and other medical specialties

INITIATION CRITERIA FOR EACH OF THE 12 SCNs

As each of the SCNs are formed, the following 7 minimum 'initiation criteria' must be met to the satisfaction of the SCN governance leadership:

1. Provincial leadership (Clinical & Administrative) with input from clinical, operational / administrative and academic leaders.
2. Defined and prioritized ‘at risk’ populations based on population and/or public needs.
3. A strategic plan for evidence-informed prevention, care delivery, and research.
4. A prioritized strategic plan that addresses current Tier 1 Targets (as appropriate) with some initial quality targets and proposed indicators of success.
5. A continuum approach to the organization of a provincial system of care
6. Engagement of primary care, public health and other key stakeholders of relevance.
7. A plan for measurement of quality improvement (likely requires research input).

A Competency Development Framework for SCNs

Some SCNs will achieve their goals more quickly than others. After initiation, three phases of evolution, maturation and concomitant ability to advise on resource allocations are envisioned based on achieved knowledge, skills and competencies:

Level 1 - (Initiation) Meeting the 7 required elements for forming an SCN
Level 2 - Establishing measures, pathways and models
Level 3 - Strategic priorities and zone / service improvements agreed
Level 4 - Establish provincial priorities with evidence; recommend resource allocation and new investment opportunities to Executive as well as disinvestment and reinvestment opportunities (within the Strategic Planning cycle outlined for AHS).

Principles of SCN Resource Support

- SCNs will have appropriate support to achieve their intended goals.
- Support is meant to enhance provincial strategy and performance.
- Resource recommendations based on existing resources wherever possible.
- Centralized versus embedded resources will be balanced while preserving the working and reporting structures already in place.
- Achieve intellectual and resource economies across the SCNs whenever appropriate to do so.
- Resource recommendations for SCNs will not be made without consultation and transparency with zones and provincial clinical services.
- Support of the SCNs will be congruent with the state of maturation.

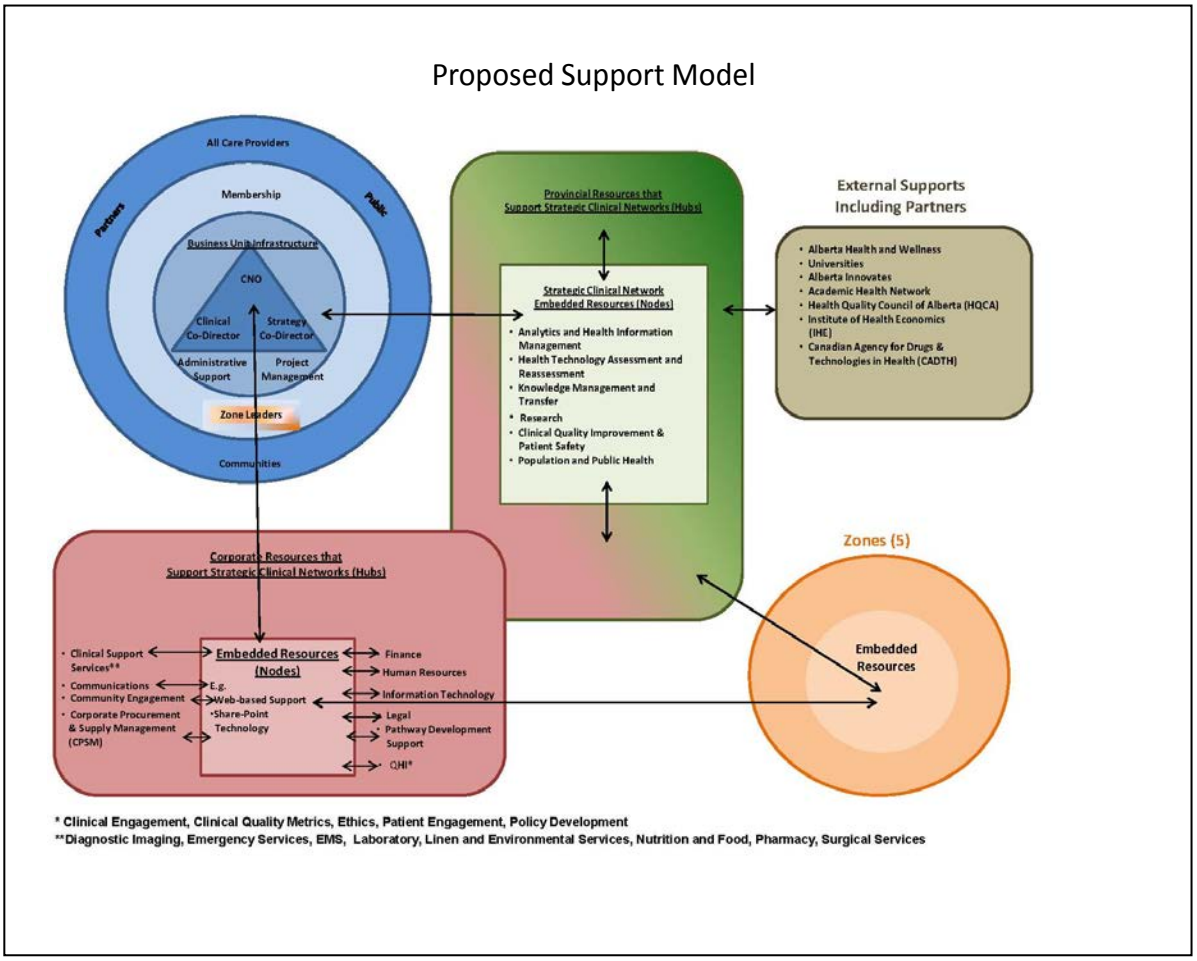
The human resources to be made available to the SCNs by AHS will vary according to their stage of development and needs. Mature SCNs will require more expertise and dedicated resources than developing SCNs. Table1 outlines the types of supports and competencies all SCNs will require, differentiated by level of maturity, where applicable.

Table 1: Proposed Supports for SCNs

Support Category	Dedicated Supports
✓ Leadership - Co-directors	• Senior Medical Director • Senior Strategy Director
✓ Program Management and Administration	• Executive Director / Program Directors • Administrative assistant • Project management • External partnership manager • Knowledge management • Strategic planner • Clinical pathway design

Support Category	Dedicated Supports
	• Implementation support • Clinical Informatics – physician lead & clinical lead
✓ Research	• Developing SCNs - Research manager, health technology assessment • Mature SCNs – Research manager, HTA, clinical trials support, data collection specialist, commercialization expertise
✓ Data /Analytics / Business Intelligence	• Data analyst • Financial/economic analytics • Program evaluator • Health Technology Assessment • Financial Analyst / costing manager
Capacity Building	• Leadership development • Patient safety • Evidence literacy, etc.
Development Funding	• Developing SCNs - research innovation fund (contingent on matching) • Mature SCNs – Competing for innovation funds (all seeking external matching)

Figure 5: The Proposed Support Model for SCNs that shows relationships of their Business Units (Blue), embedded Corporate Resources (Pink) and Provincial Resources (Green) linking to Zones/Provincial Clinical Services and to external Partners.



LEADERSHIP DEVELOPMENT AND LEARNING SUPPORT

The leadership and learning needs of SCN members has been supported through a two day orientation and a five day training curriculum to enhance existing and develop new skills and competencies. These modules are being improved for the OCNs and final 6 SCNs. Subsequent development & training will be planned throughout the year in an effort to ensure that SCN members have the training required to achieve their objectives. A capability framework that will help guide and assess maturing SCNs has been developed & will be utilized to support the ongoing capability of each SCN.

RISKS AND MITIGATION STRATEGIES FOR SCN START-UP

- The biggest risk is the current lack of engagement of Primary Care/Family Medicine leaders in the community, as their collaboration in building this system of effective networks is essential. Leaders will be engaged proactively to clarify their needs and to ensure that SCN and OCN development meets those needs.
- The second biggest risk will be the potential inability to adequately implement Strategic Clinical Network plans. This risk can be partly mitigated by early involvement of operational leaders in developing the plans and alignment between Zone Integration Plans, budgets and the AHS planning cycle, and by a clear business cycle that articulates the order of the processes and a provincially endorsed value-based decision support tool that is applied transparently to all proposals.
- The number of functions assigned to SCNs is large, so there is a clear need to reduce and strongly manage their stakeholder expectations and projects.
- Creating silos amongst the 12 SCNs and three to five OCNs clearly needs to be mitigated by coordination and communication across all. Effective and transparent tools and processes for establishing priorities within, across and between are needed.
- The high expectations of SCN engagement requires transparent and consistent communication of realistic timelines, frequent updates and leadership commitment.
- The expectations of the leadership competencies of SCNs are high. They will need to be continuously supported both formally though leadership skill development and informally by providing opportunities for peer collaboration.
- "Scope creep" of SCNs needs to be managed by focus on problems that are relevant to stakeholders (clinicians, patients and the public, policy makers and operations leaders) and not driven by esoteric ideas. SCNs to avoid bringing every clinical problem and issue forward and stay focussed on “big issues”.
- Stakeholders might feel that they just “represent” a profession or geographic area rather than feel like true members. They need engagement and local mechanisms to in turn engage colleagues within their areas, and support to act as champions who can solicit broader views on SCN work
- Data deficiency requires a realistic, carefully communicated plan of provincially endorsed dashboard development with clinically relevant performance indicators
- A communication gap could develop so education and training for managers/leaders on how to enable frontline participation on SCNs is required. Academic partners could also help with training offerings at all levels of SCNs.

- There is a risk of creating massive structures that are too complex to be successful in accomplishing outcomes and responsive to change. Strong effective mechanisms to coordinate and motivate the collective effort of the networks are essential. Quick wins need to be identified.