Connect Care Physician Roles

Overview

The Alberta Health Services (AHS) Connect Care initiative seeks to improve health outcomes through a continuum of care, cross-generation, cross-geography, one-person-one-record Clinical Information System (CIS). For clinical improvement to take hold, it is vitally important that busy clinicians integrate new informational supports into their workflows. This can happen when clinicians are organized, empowered and held accountable; all contingent on engagement, adoption and contribution.

This document summarizes our understanding about formal physician leadership roles that might be jointly supported by the Connect Care initiative at provincial, zone and site levels. Roles are distinguished from informal physician contributions.

Defining and differentiating physician leadership roles can help interested stakeholders identify opportunities for involvement, while helping the Connect Care initiative to build physician leadership capacity in health informatics. The following roles are described, classified and compared:

- Chief Medical Information Officer
- Associate Chief Medical Information Officer
- Physician Design Lead
- Medical Informatics Lead
- Provincial Physician Trainer
- Area Physician Trainer
- Physician Builder
- Clinical Telehealth Lead
- Clinical Knowledge Lead
- Clinical Topic Lead

Contents

Alberta Health Services
Connect Care

Summary

This document describes and compares formal leadership roles which physicians may undertake while contributing to the success of the Alberta Health Services (AHS) Connect Care initiative.

Connect Care physician leadership roles may be formal or informal. Formal attachments have specific descriptions, accountabilities and terms, usually specified in contractual arrangements. Physicians are recruited to the roles through job postings and are appointed after an explicit selection process. All formal roles can be classified by key attributes, including:

- Scope
  on a continuum from a local to provincial; with categories for province, zone, clinical area, and site levels.
- Phase
  relating to one or more phase of the Connect Care pathway; with categories for evaluation, design, build, implementation, operation, optimization, or all phases.
- Capabilities
  relating to skills or strengths key to the role; with categories for governance, representation, liaison, recruiting, change management, support, innovation and adaptation.
- Accountabilities
  relating to reporting and liaison relationships.

These attributes are highlighted in a Connect Care physician role matrix (Table 1) and the synopses that follow.

Formal physician leadership roles will help build capacity for meaningful Connect Care use. However, a much larger population of engaged and organized physicians is needed to support front-line user groups, quality advocates, clinical improvement innovators and others who help to get hands on keyboards and value from Connect Care use. These "informal" contributions are important to Connect Care success, explicitly identified and credited, and are built-in to the physicians' usual accountability. Many physicians can contribute as subject-matter-experts, super-users, change agents and peer-supports with or without a formal Connect Care role.

For the purposes of this document, a "clinician" is any person who provides health care goods or services directly to patients and/or families; as opposed to being engaged in health care for other purposes, such as research or administration. The terms "physician" and "medical" specifically relate to health care workers who are physicians, physician-trainees or medical students recognized by the Alberta College of Physicians and Surgeons. The term "prescriber" includes physicians and other health professionals authorized to order health care services.

Table 1: Connect Care Physician Roles Summary Matrix

	CMIO	ACMIO	Design Lead	Informatics Lead	Telehealth Lead	Knowledge Lead	Knowledge Topic Lead	Trainer	Builder
Scope	Province	Zone	Province	Zone	Province	Area	Area	Prov & Area	Area
Phase	All	All	Design Build Implement	All	All	Design Build Optimize	Design Build Optimize	Operate Optimize	Design Operate Optimize
Governance	✔	✔	✔		✔				
Leadership	✔	✔	✔		✔	✔			
Representation	✔			✔		✔	✔		
Liaison	✔	✔			✔	✔	✔		
Advocacy	✔	✔	✔	✔	✔			✔	✔
Recruiting	✔	✔	✔						
Change	✔	✔		✔	✔			✔	
Support				✔				✔	✔
Innovation	✔	✔	✔	✔	✔	✔	✔		✔
Adaptation				✔				✔	✔
Accountability	CMO	CMIO ZMD	CMIO	ACMIO	CMO	CMIO SCN	CKCM	ACMIO	CMIO
FTE	0.8	0.6-0.8	0.5	0.2-0.4	0.4	0.1-0.3	Hourly	0.2-0.4	0.2-0.4
Number	1	5	5	EZ – 15 CZ – 15 RZ's – 6	1	22	200	PPT – 17 APT – 40	25

Alberta Health Services

Connect Care

Physician Roles

The Connect Care initiative will unfold on a large scale, ultimately encompassing an entire Province. The needed physician leadership contributions are diverse; distinguished by Scope, Phase, Capabilities and Accountabilities. Formal leadership roles are summarized below, with key attributes identified for each. Additional information about training requirements, related Epic physician roles, and extended roles follows.

Chief Medical Information Officer – 0.8-1.0 FTE

Scope

Province

Phase

All

Capabilities

Governance, Leadership, Liaison, Advocacy, Recruiting, Change Management, Innovation

Accountability

CMO

The CMIO reports to the AHS Vice President Quality and Chief Medical Officer and works in a CIS leadership triad with the Chief Information Officer (CIO) and Senior Program Officer (SPO). The CMIO has overall accountability for physician Connect Care leadership activities.

The CMIO plays a key role within AHS leadership, advocating for the clinical and business applications of Clinical Information Systems (CIS), clinical knowledge and content development, and the field of medical informatics. The CMIO is an active participant in the development and deployment of CIS initiatives in AHS facilities, with a focus on clinical content, guidance and knowledge management. In partnership with the SPO, the CMIO leads, promotes and articulates the vision for a provincial CIS to frontline clinicians. The role builds, through engagement, collaboration and support, a network of committed and motivated CIS physician leaders; while overseeing engagement, change management and benefits realization efforts for physicians.

The CMIO helps maintain and manage relationships with provincial stakeholders such as the Alberta Medical Association, Health Quality Council of Alberta, Alberta Health, regulatory bodies, colleges and academic institutions.

Associate Chief Medical Information Officer – 0.6-0.8 FTE

Scope

Zone

Phase

All

Capabilities

Governance, Leadership, Liaison, Advocacy, Recruiting, Change Management, Innovation

The Associate Chief Medical Information Officer (ACMIO) is a leadership role in each of the Edmonton, Calgary, North, Central and South AHS Zones, co-reporting to the Chief Medical Information Officer (CMIO) and the respective Zone Medical Director. Working closely with a clinical operations partner, the ACMIO rallies zone medical communities to facilitate the integration and update of clinical information systems into everyday medical practice, and to support the provision of patient-centered and evidence-based care.

The ACMIOs lead and promote the Connect Care vision among front line physicians across the care continuum while retaining awareness of existing zone imperatives. Acting as physician-champions for medical informatics, they build a network of committed and motivated medical informatics leads through engagement, collaboration and support. They promote effective change management processes, understand how to incorporate information

Accountability	technologies into practice, and help set priorities for informatics initiatives within their respective zones.

CMIO

The ACMIOs externally collaborate, as required, with other healthcare organizations, Alberta Medical Association and academic institutions. They work collaboratively with the CMIO, other ACMIOs, Connect Care and CMIO Directors to promote provincial medical informatics priorities.

Physician Design Lead – 0.5 FTE

Scope

Domain

Phase

Design, Build, Implementation

Capabilities

Governance, Leadership, Innovation

Accountability

CMIO

Five physician Design Leads serve Connect Care broadly throughout design, testing and implementation, with a primary reporting relationship to the CMIO. Design leads are needed during the 5-6 years required to establish Connect Care province-wide.

These are critically important and influential roles that significantly impact CIS design and implementation in all clinical areas. Physician Design Leads advocate effectively for strategic transformation, anticipate impacts on stakeholders, identify issues, and help resolve problems.

While Connect Care will be designed and configured with a provincial lens, conditions for successful adoption have to be tailored at a local level. Physician Design Lead recruitment seeks balance across Edmonton, Calgary and Rural zones, so that Connect Care configuration work is sensitive to differences between zones. Close working relationships are developed with each of the zone ACMIOs. An attempt is also made to distribute clinical area experience and expertise across the 5 design leads.

Design Leads	Informatics Leads
Provincial	Zonal
CIS Focused	CIS & IM/IT Dependencies
5 CIS Domains	15 Clinical Departments
Design-Build Focus	Implementation-Operation-Optimization Focus
CIS Triads	Zonal Dyads
Temporary Positions	Permanent Positions

Medical Informatics Lead – 0.2-0.4 FTE

Scope

Department

Phase

All

Capabilities

Representation, Advocacy, Change

Rapid digitization of health communications, records, and decision-support brings change and challenge to the clinical, education, and research activities of AHS and its care partners. Strong clinical leadership is required to promote a business-led agenda that enables care transformation through CIS implementation. Physicians are relied on through all phases of the Connect Care journey for their knowledge, experience, and ability to mobilize their peers to action.

Medical Informatics Leads are recruited from clinical areas, sections, programs or departments within AHS Zones. They are accountable to a

Alberta Health Services

Connect Care

Management, Support, Innovation, Adaptation

Accountability

ACMIO

relevant Zone ACMIO. Leadership capacity is more important than technical competence, as medical informatics leads work with key influencers in their clinical communities to promote workflow adaptation to the CIS and CIS adaptation to front-line clinical realities.

Provincial Physician Trainer – 0.2-0.4 FTE

Scope

Province

Phase

Operate, Optimize

Capabilities

Support, Adaptation

Accountability

ACMIO, CMIO

Connect Care Provincial Physician Trainers (PPT) are practitioner-users of the Connect Care clinical information system (CIS) who are recruited, trained and supported to develop curriculum and train peers in safe and acceptable CIS use while promoting transformation and clinical improvement.

PPT responsibilities initially center on development of Connect Care training curricula and other learning support materials for prescribers (including physicians), and development and oversight of an empowered group of Connect Care Area Physician Trainers (APT).

The focus later shifts to oversight of prescriber training through all Connect Care implementation waves. This includes supporting physician trainers, in-person training of physicians before go-live, onsite support for new CIS users, and delivery of pre-launch personalization and post-launch optimization workshops and labs.

PPTs develop close working relationships with one or more Connect Care User Groups or Communities of Practice, leveraging opportunities to promote meaningful use. PPT will guide APTs and work with the Connect Care learning team, the CMIO portfolio, Medical Affairs, Epic, and clinical and operations leaders to support the development and delivery of physician training.

A PPT gets involved early in the Connect Care implementation journey, has a major ongoing time commitment, and is accountable for overseeing training needs for all physician and advanced care users in multiple AHS zones, clinical areas and integrated workflows. This role works closely with Operations training leaders to define, plan, implement and evaluate the multiple learning pathways required to ensure smooth change management with minimal disruption to clinical operations. APTs, by contrast, engage closer to launch, have a more contained commitment, are guided by a PPT, and focus on a specific set of workflows, possibly in just one or two clinical areas.

Area Physician Trainer – 0.2 FTE

Scope

Area

Phase

Operate, Optimize

Capabilities

Support, Adaptation

Accountability

Connect Care Area Physician Trainers (APTs) are practitioner-users of the Connect Care clinical information system (CIS) who are recruited, trained and supported to guide and support peers in safe and acceptable CIS use while promoting transformation and clinical improvement. They provide instruction about CIS adoption for physicians in their own or similar clinical area or specialty.

APTs are drawn from and linked to clinical areas defined for Connect Care program delivery, as reflected by the Connect Care's Area Councils. Their focus reflects an intersect of clinical area (specialty) and Alberta Health Services (AHS) zone. Accordingly, they work closely with zone Medical

| ACMIO, PPT | Informatics Leads and co-report to relevant ACMIOs and Provincial Physician Trainers. It is possible for Physician Design Leads, Medical Informatics Leads or other physician roles or physician contributions to extend their Connect Care commitment by adding an APT role for a larger overall FTE allocation. |

APTs are medical professionals, trainees (residents or fellows) or advanced care practitioners experienced with and able to relate to one or more areas of clinical specialization. They know enough about implementation sites to shape training to the specific interests and needs of local learners. APTs are guided by Provincial Physician Trainers (PPTs) who have provincial scope and responsibility for design of curriculum content that can be adapted to clinical area and facility needs. Comparted to PPTs, an APT engages closer to implementation, has a more contained commitment, is guided by a PPT, and focuses on a specific set of workflows, possibly in just one or two clinical areas.

APT responsibilities include adaptation of Connect Care training curricula to physician and clinical area needs, in-person training of physicians before launch, support and development of local power and super-users, onsite support for new CIS users, and design and delivery of personalization and optimization workshops and labs. APTs participate in specialty workflow training, site shadowing and training simulations. Trainers develop close working relationships with one or more Connect Care user groups, leveraging training opportunities to improve optimization and meaningful use.

Physician Builder – 0.2-0.4 FTE

Scope

   Area

Phase

   Design, Operate, Optimize

Capabilities

   Support, Innovation, Adaptation

Accountability

   CMIO

Physician Builders are technically oriented but clinically connected. They complete supplemental training and certification to master CIS tools that facilitate uses of point-of-care decision supports, clinical analytics and clinical improvement interventions. Such tools may include chronic disease management dashboards, best practice advisories, patient registries, key performance indicators, research information management systems, or other inquiry supports. Builders have clinical, eHealth, information, evidence and analytics literacy and may specialize in any combination of orders management, analytics, clinical documentation or decision support.

Physician Builder roles are usually combined with other physician leadership positions as role extensions, giving a larger overall FTE commitment (0.4-0.6). However, Builders may develop as an independent capability.

Builders work closely with the application coordinators, business managers and enterprise analytics specialists. They are well connected with frontline Communities of Practice and work with colleagues to advocate for meaningful data capture and point-of-care decision support. Although embedded in a 'home' clinical area, the relatively small number of builders will require service and attention to multiple areas.

Clinical Knowledge Lead – 0.1-0.3 FTE

Scope

   Area

The Clinical Knowledge Lead serves as knowledge management resource to Connect Care; translating evidence-informed guidance and standards to forms that can be expressed in the CIS. Typically, a physician attached to a

Phase

    Design, Build

Capabilities

    Representation, Liaison, Innovation

Accountability

    CMIO

clinical area, the lead is a champion for and can facilitate provincial knowledge topic development amongst experts and colleagues. This includes development of standardized order set components, care pathways, performance indicators and update protocols.

Knowledge Leads report to the CMIO through the Clinical Knowledge and Content Management (CKCM) Executive Director. The Strategic Clinical Networks (SCN) are tightly coupled with CKCM. Where one or more SCNs are associated with a Knowledge Lead's clinical area, the Lead liaises closely with relevant SCN lead(s) and Connect Care Area Councils.

The Knowledge Lead may also be called upon to represent a clinical area perspective in Connect Care governance structures. Knowledge Leads are expected to build relationships with Physician Design Leads and Medical Informatics Leads and to collaboratively design clinical knowledge into the CIS.

Clinical Topic Lead – Hourly

Scope

    Area

Phase

    All

Capabilities

    Liaison, Innovation

Accountability

    CKCM

The Clinical Knowledge Topic Lead is a key resource in the development of evidence-informed clinical guidance. The Topic Lead is a subject matter expert that summarizes format-agnostic clinical knowledge using standardized templates that support the generation of clinical content for use in CISs across the province.

Topic Leads must be able to facilitate and reach consensus amongst their colleagues for the development of knowledge topics. Depending on the type and scope of knowledge, the Topic Lead may be a physician, nurse practitioner, quality improvement specialist, registered nurse, etc.

The Topic Lead Reports to the applicable Clinical Knowledge Lead and is supported by the CKCM program.

Clinical Telehealth Lead – 0.4 FTE

Scope

    Province

Phase

    All

Capabilities

    Liaison, Advocacy, Change, Innovation

Accountability

    CMO

This clinical telehealth lead reports to the CMO and acts as a catalyst within the medical community to facilitate the emergence of virtual health services.

The Medical Director works in close partnership with the Provincial Telehealth Director to advance the vision of clinical telehealth to be a mainstream option of healthcare delivery in Alberta. The medical and provincial directors are jointly responsible and accountable for providing leadership required to implement various Telehealth strategies and manage stakeholder relationships to promote sustainable clinical application of Telehealth technologies.

Attributes

Formal Connect Care physician roles are distinguished by a limited number of attributes. These include Scope, Phase, Capabilities and Accountabilities.

Scope

The "scope" of a role refers to whether it primarily attends to matters expressed on a local or a provincial scale. It is important for any role to have a clear declaration of scope, including:

- **Site**
  A role that is site-oriented may focus on implementation or optimization needs of a specific AHS facility (e.g. hospital, clinic)
- **Area**
  A role may advocate for or be accountable to a multi-site and/or multi-department clinical service delivery program (e.g., regional diabetes multidisciplinary program, transplant program, renal failure program), clinical department or clinical section. These may be traditional (e.g., "medicine", "pediatrics", "surgery", "obstetrics and gynecology", "psychiatry", etc.) with one or more divisions (e.g., "cardiology", "urology") or clusters of like disciplines functioning like departments, such as "neurosciences", "cardiac sciences", "cancer care", etc. When clinician leaders represent and are accountable for clinical areas, they are best positioned to influence decision-making, resource-allocation, practice plans and other determinants of clinical attitudes and behaviors. Clinical areas match, as closely as possible, common CIS workflows, modules or applications.
- **Zone**
  AHS has 5 zones (Edmonton, Calgary, North, South, Central) which manage service delivery for their respective geographic areas. Organizational memory for how to get things done is primarily zonal. Whereas provincial standardization is essential for things like clinical guidance and documentation, zone sensibilities are essential for front-line workflows and change management. Most clinicians relate to AHS through entities like medical staff associations, zone operational structures or health unit quality councils; all of which have a strong zone grounding.
- **Province**
  Provincial roles consider the Connect Care initiative broadly, with all of its site, area and zone implications.

Phase

The Connect Care initiative proceeds through the following phases:

- **Evaluation**
  when the focus is on engagement, understanding baseline workflows, selecting an integrative technology platform, which components to use, and planning how to fill functional gaps through interoperability and interfacing.
- **Design**
  when the focus is on confirming standards, approaches and a base configuration that will support all instances of the CIS province-wide.
- **Build**
  when usable infrastructure (hardware, servers, networks, devices, etc.) and infostructure (CIS functional modules) are prepared, user-acceptance tested and readied for deployment.
- **Implementation**
  when groups of users are trained, prepared, and supported through transition to CIS-optimized workflows and practice standards.

- **Operation**
  when the implemented system is stabilized, minimum acceptable use is achieved, breaks are fixed, and outcomes are monitored.
- **Optimization**
  when operational priority shifts from uptake and minimum use to adoption and enhanced use.

Some physician roles serve specific phases. Others have accountabilities that span all phases.
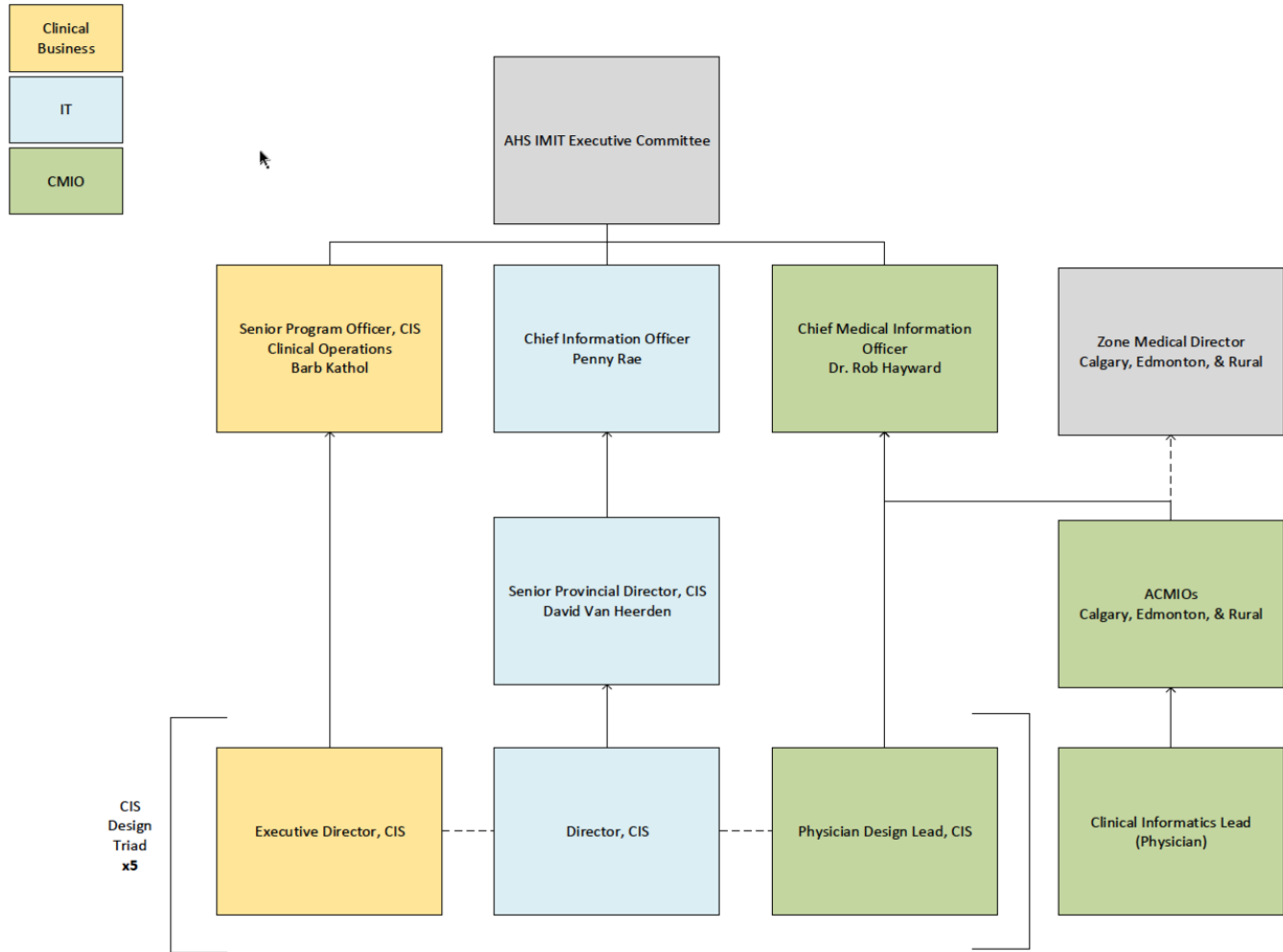
Capabilities

Clinicians serve best when they remain clinicians; bringing a unique sensibility to bear on evaluation, design, build, implementation, operation and optimization activities. Impactful clinicians will also have one or more of the following capabilities:

- **Governance**
  includes participation in oversight committees, workgroups and rapid-response teams; with capacity for collaboration, compromise and attention to long-term goals.
- **Leadership**
  requires awareness of channels of influence and the ability to promote the Connect Care vision in a way that rallies engagement, enhances adoption and facilitates problem-solving.
- **Representation**
  requires endorsement by a stakeholder community to communicate their needs, translate their requirements and hold accountable their leadership.
- **Liaison**
  involves coordinating communications with stakeholder groups in ways that promote engagement and adoption.
- **Advocacy**
  expresses clinical perspectives for positive impact on CIS planning, implementation and surveillance.
- **Recruiting**
  requires connections and means to find, entice, secure, and retain contributions from stakeholder communities.
- **Change management**
  involves recognizing influencers, opportunities and means for transforming workflows and processes.
- **Support**
  involves the ability to recognize when colleagues need help, opening them to receiving help, and shaping behaviors.
- **Innovation**
  involves recognizing opportunities to do more, with better outcomes and less effort.
- **Adaptation**
  involves remediation of user struggles through locally sustainable adjustments or personalization.

Different roles require different mixes of the above capabilities.

Accountability

Connect Care physician roles are coordinated through the AHS CMIO, in close collaboration with Connect Care initiative and AHS Zone leadership. Particular roles may have additional reporting relationships that emphasize more or less provincial, zone, clinical area, site or facility accountabilities.

Alberta Health Services
Connect Care

Training Requirements

Although some leaders bring considerable clinical informatics expertise to their role, many will need to acquire health information literacy, general clinical informatics knowledge and specific understanding about how Epic and other CIS software components work. Informatics orientation and training opportunities are provided for all Connect Care physician leaders. In addition, there may be specific requirements for Epic orientation, courses, competency assessments or full certification in particular Epic modules or applications.

The following table summarizes training requirements known at this time. Others may emerge.

Leadership Role	Training Requirement	Location
CMIO	Connect Care Physician Orientation Course	Alberta
ACMIO	CMIO Orientation (online sessions)	Alberta
	Connect Care Physician Orientation Course	Alberta
Design Lead	CMIO Orientation (online sessions)	Alberta
	Connect Care Physician Orientation Course	Alberta

Medical Informatics Lead	CMIO Orientation (online sessions)	Alberta
	Zone Orientation	Alberta
	Connect Care Physician Orientation Course	Alberta
Physician Builder	Connect Care Physician Orientation Course	Alberta
	Physician Builder – Basic	Wisconsin
	Physician Builder – Advanced	Wisconsin
Provincial Physician Trainer	Physician Orientation Courses	Alberta
	Trainer Curriculum Design and Certification	Wisconsin
Area Physician Trainer	Connect Care Physician Orientation Course	Alberta
	Physician Trainer Orientation	Alberta
Telehealth Lead	Connect Care Physician Orientation Course	Alberta
Knowledge Lead	CKCM Orientation & CDS Training	Alberta
	Connect Care Physician Orientation Course	Alberta
Knowledge Topic Lead	CKCM Orientation & CDS Training	Alberta
	Connect Care Physician Orientation Course	Alberta

All Connect Care physician leaders can register for one or more Physician Builder courses, which must be completed at the Epic campus in Wisconsin. While the CMIO accepts applications for support with travel and accommodation, resources are limited and physicians are encouraged to seek support from their home clinical group, university professional development funds or medical association supplements.

Career Pathways

Alberta Health Services (AHS), Alberta Health and Alberta medical schools recognize how clinical improvement activities, systematically conducted, can constitute scholarly contribution. The "Clinical Improvement Career Pathway" (ahs-cmio.ca/career) describes how Connect Care supports clinician innovators in ways that dovetail with the requirements of alternate reimbursement plans (ARPs), the Alberta Academic Medicine Health Services Program (AMHSP) and University evaluation and promotion policies. Interested physicians can seek CMIO help to craft a portion of training work for evaluation and communication befitting the scholarship of improvement.

Connect Care medical leaders are also supported to grow through training opportunities in quality improvement, health informatics, enterprise analytics, patient safety, change management and leadership development. Select leaders can be nominated for advancement through the AHS executive leadership training program.

Epic Physician Role Mappings

AHS Connect Care physician leadership roles bear labels and position descriptions that differ from roles promoted by Epic in its staffing guides and good install program. As AHS physicians often interact with Epic resources through its "UserWeb", courses and other resources; approximate mappings between AHS and Epic leadership roles are offered.

AHS Leader Role	Epic Role(s)	Notes
CMO	Project Sponsor	Member of exec team focused on project relationship to organizational strategy.
CMIO	CMO, CMIO	Oversees physician engagement, clinical meaning (not IT project), strategy, etc.
ACMIO	CMIO	Liaison between IT and medical staff, with focus on clinical content.
Design Lead	Clinical Champion Specialty Champion	Participate in system design/configuration, often with focus on an area.
Medical Informatics Lead	Readiness Owners Super User Subject Matter Expert	Specialty, zone and site advocacy roles.
Physician Builder	Physician Builder Clinical Content Builder	Content development, customization, personalization.
Provincial Physician Trainer	Physician Champion (Trainer)	Integrated module training.
Area Physician Trainer	Specialty Trainer, Credentialed Trainer	Specialty specific training.
Telehealth Lead	Subject Matter Expert	No clear equivalent.
Knowledge Lead	Chief Research Information Officer Subject Matter Expert	Contribute to content development.
Knowledge Topic Lead	Subject Matter Expert	Contribute to direction-setting, adoption.

Appendix: Position Descriptions

Chief Medical Information Officer - Position Description
Working Title: Chief Medical Information Officer (CMIO)

Position Summary
The Chief Medical Information Officer (CMIO) provides visionary leadership and establishes direction for a comprehensive AHS medical informatics program. The role plays a key role within AHS leadership, representing the clinical and business needs of clinical information systems (CIS), clinical knowledge and content, health information management and medical informatics to the senior executive.

The CMIO is a member of an integrated AHS senior leadership team and reports directly to the VP Quality & Chief Medical Officer (CMO), forming a triad with the Chief Information Officer (CIO) and the CIS Senior Operating Officer (SPO). This role is a member of AHS Leadership, and as such, shares collective responsibility for fostering the innovation, integration, and consistency of high quality, integrated, and patient-centered and family-centered clinical care within the province of Alberta. The CMIO will establish and maintain strong relationships with other senior leaders, and will work collaboratively to identify and resolve issues impacting the Connect Care initiative.

Accountabilities

- The CMIO is an active participant in the selection, development and deployment of Connect Care in AHS facilities, while supporting safe transitions from pre-existing AHS health information systems.
- The CMIO impacts the development of embedded clinical content, clinical decision support tools and measurement and reporting tools in clinical information systems and overall AHS clinical knowledge management initiatives.
- The CMIO leads, promotes, and articulates the Connect Care vision for frontline physicians, emphasizing quality and safe patient care.
- This CMIO builds, through engagement, collaboration and support, a network of committed and motivated medical informatics physician leaders.
- The CMIO directs and oversees clinical engagement to support the design, deployment and benefits realization of Connect Care.
- This CMIO develops robust, efficient and effective change management, training, and support processes for Connect Care and participates actively in prioritization of related strategic and operational initiatives.
- The CMIO co-leads the delivery of the Provincial IMIT Strategy and collaborates with clinical business to support clinical innovation enabled and supported by IMIT initiatives.
- The CMIO manages key relationships with provincial stakeholders such as the Alberta Medical Association, Health Quality Council of Alberta, Alberta Health, professional colleges, health educators and health research institutions.

Associate Chief Medical Information Officer – Position Description
Working Title: Associate Chief Medical Information Officer (Edmonton, Calgary, North, Central, South)

Position Summary
The Associate Chief Medical Information Officer (ACMIO) is a leadership role that reports jointly to the Chief Medical Information Officer (CMIO) and respective Zone Medical Director, working closely with zone IT clinical applications partners. The ACMIO acts as a catalyst within zone medical communities to facilitate the integration of medical informatics into everyday medical practice, supporting clinicians to provide patient-centered and evidence-informed care.

The ACMIOs lead, promote and articulate effectively, the Connect Care vision and how it relates to transitions from pre-existing Clinical Information Systems (CIS) for front line physicians working across the care continuum. ACMIOs are the primary physician champions for medical informatics in their AHS zone. They build, through engagement, collaboration and support, a network of committed and motivated medical informatics physicians and clinicians. They develop robust, efficient and effective change management processes for incorporating IT into practice, and participate actively in prioritization of strategic and operational initiatives within their zones.

Accountabilities

- ACMIOs are responsible for the recruitment and development of a robust medical informatics team within their zones. This team will be directly responsible for informatics leadership in clinical areas, with a focus on Connect Care.
- The ACMIO position is accountable for identifying, building and maintaining collaborative relationships with health sector stakeholders, academic partners, and medical communities for the development of medical informatics strategies, education and evaluation processes.
- The ACMIO reports to the AHS CMIO and to the relevant Zone Medical Director, working in partnership with an operations dyad while maintaining strong working relationships with Senior Executives and other relevant partners.
- ACMIOs play a key role on the zone leadership teams, representing the clinical and operational needs in clinical information systems, clinical knowledge and information management, and informatics work.
- The ACMIO influences the direction of key initiatives on matters related to medical informatics and clinical transformation through significant interaction with internal and external stakeholders.
- The ACMIO facilitates effective existing CIS (SCM, Meditech, eCLINICIAN, etc.) use during transitions to Connect Care.
- ACMIOs chair and/or participate in various senior committees in AHS zones and external organizations, focusing on clinical information systems development, operations, and support.
- ACMIOs provide leadership for clinical transformation, education, adoption and optimization of clinical IT and clinical decision support tools.
- ACMIOs direct and oversee the engagement of zone physicians in all AHS informatics initiatives, buildin awareness and opportunities for broad provincial Connect Care success.

Physician Design Lead – Position Description
Working Title: Connect Care Physician Design Lead

Position Summary
Strong physician leadership is required to promote overall care transformation through implementation of an AHS-wide Clinical Information System (CIS) as part of the Connect Care initiative. The Connect Care CIS is designed and configured with a provincial lens, while considering conditions for successful implementation at a local level and aligning clinical with business needs. Working collaboratively with operations and information technology partners, five Physician Design Leads (PDL) provide significant Connect Care leadership over the 5-6 years of Connect Care deployment.

In the short to medium term, the PDLs facilitate the work required to design, build, test and deploy the Connect Care CIS, while considering design needs for meaningful physician engagement, training, evaluation and adoption. This includes leading and liaising with diverse leadership teams and clinical business areas.

Accountabilities

- PDLs report to the AHS Chief Medical Information Officer, while working in a triad relationship with provincial Connect Care information technology and Connect Care operations leads.
- PDLs provide medical leadership direction for Connect Care design, configuration, deployment, training, adoption and operational usage across the continuum of care.
- PDLs seek synergy between business needs and technology solutions; assessing and developing strategies for achieving the application or information service needs of internal and/or external clients.
- PDLs serve as provincial leaders, collaborating with other zone and clinical areal leaders to ensure clinical operational needs are identified and addressed optimally using Connect Care capabilities.
- PDLs partner with other clinical leaders to identify opportunities for technology- facilitated business process optimizations; lobbying for changes that promote clinical value.
- PDLs develop, implement, and evaluate strategic and operational IM/IT plans, seeking alignment with AHS organization strategy and Connect Care goals.
- PDLs mobilize others stakeholder IT and clinical communities to support change through times of stress and uncertainty, understanding risks and benefits while identifying strategies to mitigate risk.
- PDLs leads the planning and management of significant system transformation for Alberta through the Connect Care initiative.
- PDLs solicit support from AHS senior leadership to endorse and promote Connect Care program and operational initiatives.
- PDLs initiate, implement and support new or modified approaches, practices and processes in AHS that maximize benefits from CIS use while minimizing harms.

Medical Informatics Lead – Position Description
Working Title: Medical Informatics Lead

Position Summary
Strong physician leadership is required to promote care transformation with implementation of an AHS Provincial Clinical Information System (CIS). As part of the Connect Care transformational agenda, AHS will transition from paper to electronic care records across the continuum of care. Physician leadership is essential to help this happen, and physicians will be relied on heavily throughout the various phases of the Connect Care initiative for their knowledge, experience, and ability to mobilize their peers to action.

A Medical Informatics Lead (MIL) is a well-established physician who advocates for AHS strategic information management initiatives, anticipates impacts on stakeholders, identifies issues, and helps to resolve problems.

Accountabilities

- MILs champion Zonal and clinical area (program, department, division, section or specialty) thinking, standardizing care and workflows across facilities where possible.
- MILs participate in Connect Care CIS design, configuration, adoption, testing, deployment, and optimization; while helping to mobilize clinician engagement for customization and personalization processes.
- MILs develop proficiency with CIS uses and functions to facilitate more productive communications and interactions with vendor, provincial and zone technical teams.
- MILs promote health systems quality assurance, patient safety and clinical improvement within AHS and stakeholder communities in order to promote efficient and effective use of the CIS and accomplishment of Connect Care goals.
- MILs promote peer development, health information literacy and medical informatics capacity-building within their respective zones.
- MILs promote meaningful use of CIS through peer outreach, nurturing a variety of physician contributions, and development of specialized Medical Informatics lead and builder roles.
- MILs participate in Connect Care Communities of Practice, promoting effective user group activities for their clinical area.
- MILs facilitate validation and field testing of medical informatics policies and procedures while encouraging greater synergy and standardization of information practices in their zone.
- MILs report to a zone ACMIO and advocate for zone and clinical area medical informatics interests at relevant Connect Care committees, councils and advisory groups.
- MILs maintain appropriate reporting relationships to clinical area, department, section or divisional organizational structures.

Physician Builder – Position Description
Working Title: Physician Builder

Position Summary
Connect Care Physician Builders (PB) are practitioner-users of the AHS Provincial CIS (CIS) who are recruited, trained, retained and supported to work with peers to facilitate Connect Care CIS customizations, adaptations and optimizations.

PBs promote clinical improvement through deep involvement in CIS-related projects. They train for Builder Certification and build organizational capacity for CIS customization, optimization, content development, testing and analytics. PBs bridge clinical and technical domains by improving characterization of user needs while easing pathways to solutions. In short, PBs help organize Connect Care physician users, improve communication between the IT team and users, generate CIS content and promote meaningful use of Connect Care assets.

While accountability for the PB program rests with the AHS CMIO, and the Provincial CIS Senior Program Officer. Participation in the builder program must be endorsed by a clinical department lead, with commitment to protect the builder's time and ensure access to clinical programs.

Accountabilities

- Obtain Epic 'physician builder' certification to understand key system capabilities and limitations.
- Become an active member of the CMIO team, working directly with Connect Care build teams to build clinical inquiry supports and/or customizations for Connect Care:
    - Participate in project improvements as a content builder and subject matter expert;
    - Participate in resource estimations and prioritizations for enhancements requested of the CIS team or inquiry supports requested;
    - Validate clinical inquiry/decision support builds;
    - Inform the development of physician-facing clinical inquiry support guidance and documentation;
    - Support ongoing content development post implementation and optimization.
- Work with colleagues across a zone-wide specialty or program to identify key requirements.
- Consult with stakeholders on opportunities for more advanced functionality.
- Support other CBs and participate in a CB community of practice.
- Participate, as appropriate, in Connect Care Communities of Practice (user groups), governance committees, clinical councils, advisory groups, and working groups.

Provincial Physician Trainer – Position Description
Working Title: Connect Care Provincial Physician Trainer

Position Summary

Connect Care Provincial Physician Trainers (PPT) are practitioner-users of the Connect Care clinical information system (CIS) who are recruited, trained and supported to develop curriculum and train peers in safe and acceptable CIS use while promoting transformation and clinical improvement.

PPT responsibilities initially center on development of Connect Care training curricula and other learning support materials for prescribers (including physicians), and development and oversight of an empowered group of Connect Care Area Physician Trainers (APT).

The focus later shifts to oversight of prescriber training through all Connect Care implementation waves. This includes supporting physician trainers, in-person training of physicians before go-live, onsite support for new CIS users, and delivery of pre-launch personalization and post-launch optimization workshops and labs.

PPTs develop close working relationships with one or more Connect Care User Groups or Communities of Practice, leveraging opportunities to promote meaningful use. PPT will guide APTs and work with the Connect Care learning team, the CMIO portfolio, Medical Affairs, Epic, and clinical and operations leaders to support the development and delivery of physician training.

A PPT learning pathways required to ensure smooth change management with minimal disruption to clinical operations. APTs, by contrast, engage closer to launch, have a more contained commitment, are guided by a PPT, and focus on a specific set of workflows, possibly in just one or two clinical areas

Accountabilities

PPTs will be established physicians within the province who understand the complexities of undertaking large-scale transformational change. Specific expectations of the role include:

- Partner with Connect Care learning team members on review of Epic resources and development of AHS curricula, materials, training environment scenarios and data.
- Design training materials adapted to clinical or work contexts and learner roles.
- Ensure curriculum and materials are developed with input from clinical resources from affected disciplines and program areas.
- Develop Connect Care learning plans in a way that integrates Epic's resources and recommendations, making best use of the tools and materials provided.
- Promote a positive Connect Care learning experience, recognizing its importance to user engagement and system adoption.
- Work closely with Clinical and Operations leaders and the Connect Care learning team to define, plan, implement and evaluate the knowledge, skills and attitudes required to ensure smooth change management with minimal disruption to clinical operations.
- Work with Connect Care leadership across clinical areas, zones, facilities and programs to engage and support physicians in effective training and use of the CIS.
- Develop and provide oversight for training of APTs and others who can help with training activities, including super users and power users.
- Broadly support Connect Care CIS implementation and optimization.
- Design and deploy just-in-time user supports to address issues arising during CIS launch waves.
- Promote meaningful use of Connect Care assets through peer outreach and innovation.
- Participate in effective and consistent communication about Connect Care and training opportunities.

Clinical Area Physician Trainer – Position Description
Working Title: Connect Care Area Physician Trainer

Position Summary
Connect Care Area Physician Trainers (APTs) are practitioner-users of the Connect Care clinical information system (CIS) who are recruited, trained and supported to guide and support peers in safe and acceptable CIS use while promoting transformation and clinical improvement. They provide instruction about CIS adoption for physicians in their own or similar clinical area or specialty.

APTs are drawn from and linked to clinical areas defined for Connect Care program delivery, as reflected by the Connect Care's Area Councils. Their focus reflects an intersect of clinical area (specialty) and Alberta Health Services (AHS) zone. Accordingly, they work closely with zone Medical Informatics Leads and co-report to relevant ACMIOs and Provincial Physician Trainers (PPTs). APTs are guided by PPTs who have provincial scope and responsibility for design of curriculum. Comparted to PPTs, an APT engages closer to implementation, has a more contained commitment, is guided by a PPT, and focuses on a specific set of workflows, possibly in just one or two clinical areas.

APT responsibilities include adaptation of Connect Care training curricula to physician and clinical area needs, in-person training of physicians before launch, support and development of local power and super-users, onsite support for new CIS users, and design and delivery of personalization and optimization workshops. APTs participate in specialty workflow training, site shadowing and training simulations. Trainers develop close working relationships with one or more Connect Care user groups, leveraging training opportunities to improve optimization and meaningful use.

Accountabilities
- Partner with Connect Care learning team members to review and adapt Epic resources when developing AHS curricula, materials, training environment scenarios and virtual patients.
- Customize training materials to suit specific clinical or work contexts and learner roles.
- Ensure curriculum and materials are developed with input from clinical resources from affected disciplines and program areas.
- Develop Connect Care learning plans in a way that integrates Epic's resources and recommendations, making best use of the tools and materials provided.
- Promote a positive Connect Care learning experience, recognizing its importance to user engagement and system adoption.
- Work closely with Clinical and Operations leaders and the Connect Care learning team to define, plan, implement and evaluate the knowledge, skills and attitudes required to ensure smooth change management with minimal disruption to clinical operations.
- Work with Connect Care leadership across clinical areas, zones, facilities and programs to engage and support physicians in effective training and use of the CIS.
- Develop and provide oversight for super users, power users and others who can help with training activities.
- Broadly support Connect Care CIS implementation and optimization.
- Design and deploy just-in-time user support to address issues arising during CIS launch waves.
- Promote meaningful use of Connect Care assets through peer outreach and innovation.
- Participate in effective and consistent communication about Connect Care and training opportunities
- Advocate for training, adoption and personalization needs at relevant Connect Care committees, area councils and advisory groups.

Clinical Telehealth Lead – Position Description
Working Title: Medical Director, Clinical Telehealth

Position Summary
AHS is committed to providing services based on the population needs of AHS and promoting a shared responsibility for improved health.

The Telehealth Medical Director acts as a catalyst within the medical community to facilitate the integration of telemedicine into everyday medical practice while supporting clinicians to provide patient-centered and evidence-informed care using Connect Care's unified communication technologies. The Medical Director works in close partnership with a provincial telehealth director to advance the vision of Virtual Healthcare Services (VHS) as a mainstream option for healthcare delivery in Alberta. They are jointly responsible and accountable for providing leadership required to implement various Telehealth strategies and manage stakeholder relationships to promote sustainable clinical application of Telehealth technologies.

Accountabilities

- Reporting through the AHS Chief Medical Office, develop and maintain linkages with the Chief Medical Information Office; providing VHS leadership and perspectives for provincial clinical content, standards and knowledge topic development.
- Enhance the impact of VHS by leveraging Connect Care capabilities while continuing to guide current operation of Telehealth services across the province.
- Help set priorities for AHS VHS and Clinical Telehealth strategy alignment with AHS goals, enterprise processes and enterprise information systems.
- Support the engagement, design, build and implementation of the provincial VHS strategy.
- Identify, build and maintain collaborative relationships with key sector stakeholders (e.g., Canada Health Infoway), academic partners, Alberta Medical Association (AMA), Alberta Health (AH) and other stakeholder communities (e.g., Strategic Clinical Networks) for the development of effective strategies, education and evaluation processes related to VHS and Telehealth services.
- Participate in the development of position papers on topics integral to creation and adoption of a VHS service model, aligned with Connect Care goals.
- Lead the establishment of clinical Telehealth protocols, procedures and policies.
- Act as clinician resource for communication and engagement needs related to VHS.
- Help establish a research and education agenda for the entire clinical Telehealth portfolio.
- Develop and execute processes related to accreditation and quality compliance of clinical Telehealth services across the province.
- Chair and participate the provincial Telehealth advisory committee.
- Discuss Telehealth and VHS at rounds or other suitable meeting venues throughout the province.
- Develop educational strategies and programs to ensure sustainability of major changes in VHS delivery and its impact on clinical practice.
- Identify relevant topics and potential speakers for continuing medical education relevant to clinical Telehealth and VHS-enabled care models.

Clinical Knowledge Lead – Position Description
Working Title: Provincial Clinical Knowledge Lead

Position Summary
The AHS Provincial Clinical Knowledge Lead (CKL) is an essential resource in the development of evidence-informed clinical guidance for expression in AHSs clinical information systems (CISs). The CKL is a physician who champions and facilitates knowledge topic development amongst colleagues. This includes development of standardized performance indicators, decision supports, order sets and care pathways updated at appropriate intervals.

The CKL role is supported by two main groups: the Clinical Knowledge and Content Management (CKCM) program and the Strategic Clinical Network Program. The role reports to CMIO and to any relevant SCN, representing the relevant clinical area on Connect Care governance structures, while working with other Connect Care physician leaders intentionally design embedded clinical knowledge supports in the AHS Provincial CIS.

Accountabilities

- Provide clinical area (discipline, program, department, division or section) leadership for provincial clinical knowledge development, uptake, evaluation and maintenance.
- Become familiar with the relevant organizational initiatives (i.e. SCN Program, appropriateness and optimization, quality improvement, etc.) that generate clinical guidance that might benefit from expression in Connect Care practice improvement aids.
- Review existing clinical area knowledge and work with clinical leaders, relevant SCN or specialty advocates to identify and prioritize the development of new or updated knowledge topics.
- Communicate with stakeholders about prioritization of topics for expression in Connect Care.
- Use evidence-based methods to support the working groups developing clinical guidance relevant to their clinical area.
- Identify and nurture subject matter experts and support them serving Connect Care goals.
- Liaise with other CKLs to coordinate development of multidisciplinary topics, such that common and cross-area topics c support the integration into broader "clinical pathways".
- Address issues and challenges that may arise during knowledge development and work with stakeholders to resolve these issues.
- Liaise with other physician informatics leaders helping with translation of clinical knowledge to clinical guidance and CIS content with a goal to facilitate intentional Connect Care configuration.
- Build clinical improvement coalitions with physicians, senior leadership, managers and clinicians across the province.
- Independently, or with support of Scientific Directors and Assistant Scientific Directors, analyze and publish outcomes from the provincial application, measurement and targeted reporting of implementation of evidence-informed clinical guidance in AHS.

Clinical Knowledge Topic Lead – Position Description
Working Title: Provincial Clinical Knowledge Topic Lead

Position Summary
The Provincial Clinical Knowledge Topic Lead is a key resource in the development of evidence-informed clinical guidance and decision supports. The Clinical Topic Lead (CTL) is a subject matter expert who renders format-agnostic clinical guidance using standardized templates that support the expression of guidance as Connect Care clinical content for use across the province. The CTL must be able to facilitate consensus-building amongst colleagues for the development of the clinical knowledge topics. Depending on the type and scope of practice-shaping guidance, CTLs may be physicians, nurse practitioners, quality improvement specialists, registered nurses, etc. The CTL reports to the applicable Provincial Clinical Knowledge Lead, in turn accountable to the provincial director of Clinical Knowledge and Content Management and the AHS CMIO.

Accountabilities

- Update relevant Provincial Clinical Knowledge Lead(s) on progress with clinical guidance and topic development.
- Review and master the CTL orientation package explication of processes for prioritizing and developing order sets, checklists, alerts, reminders pathways or other clinical decision supports that might facilitate compliance with evidence-informed provincial clinical guidance.
- Work with the knowledge lead to form a working group with multidisciplinary membership from across the province; plus important additional stakeholders that should be involved in topic review.
- Work with the knowledge lead to review clinical guidance, inventory existing decision supports, adapt externally produced supports, draft new or adapted clinical knowledge topics, and promote Connect Care guidance adoption activities.
- Work with Medical Informatics leadership to determine which outputs, in which forms, need publication in the Provincial Knowledge Viewer, the Provincial Clinical Content Repository and Connect Care clinical decision supports, all complying with the provincial knowledge standards.
- Champion use of the clinical knowledge topic templates and processes, particularly design standards for alerts, reminders, assists, measures, order sets and pathways expressed in Connect Care.
- Develop lifecycle review and expiration dates for knowledge topics that reflect the volatility of the associated clinical evidence, circumstances or values.
- In partnership with Medical Informatics leaders, collect ongoing feedback about the usefulness, impact, benefits and harms associated with clinical decision supports based on clinical knowledge topics.