Northern Ontario Clinical / Academic Integration Project

External Environmental Scan

March 2017

> *"Don't be bogged down by what IS or what happened before. Focus on what CAN or SHOULD be."*
> — Karen Michell, Executive Director of CAHO
>
> *"As Academic Health Sciences Centres, we have a duty to the patients of today and the patients of the future. Research and innovation advance the care of patients of today and tomorrow, and through education and knowledge exchange we can have a local and a global impact on health services."*
> — Catherine Zahn, CAMH President and CEO, CAHO Chair

Northern Ontario School of Medicine
École de médecine du Nord de l'Ontario

Health Sciences North
Horizon Santé-Nord

Thunder Bay Regional Health Sciences Centre

Prepared by Jennifer Wakegijig, RD, MBA

Contents

Executive Summary 3

Introduction 5

Methodology 6

Academic Health Sciences Centres 6

Academic Health Sciences Networks 7

The Mechanics of the Integration of Academics in Clinical Settings 9

- Leadership Structures 9
- Targeted and Strategic Recruitment "You are what you recruit" 10
- Supporting Research in Clinical Settings 12
- Practice Plans or Alternate Funding Plans 14
- Faculty Appointments for AHSC Physicians 15
- Administrative Support 16
- Faculty Relations 16
- Learner Engagement – "Not About Us Without Us" 17

A Framework for Effective Collaboration 18

Leadership Considerations for Advancing the Academic Mission in an AHSC 19

- Pursue Clarity of Vision, Before Wading into the Details 19
- Visible Leadership Commitment is Essential 19
- Trusting Relationships and Regular Collegial Contact: "It's a contact sport" 20
- Governance and Strategy 20
    - Hospital Boards 20
    - Medical School Board/Governance 21
    - Council overseeing the partnership 21

References 22

Appendix A – List of Key Informants – *Acknowledged with gratitude* 23

Appendix B – Key Informant Questions 24

Lakehead · Laurentian · Medicine
Northern Ontario School of Medicine
École de médecine du Nord de l'Ontario

Health Sciences North
Horizon Santé-Nord

Thunder Bay Regional Health Sciences Centre

Executive Summary

The following report was developed as part of the Northern Ontario Clinical/Academic Integration Project. The outputs of this project will inform renewal of the collaboration agreements between the Northern Ontario School of Medicine (NOSM) and Northern Ontario's Academic Health Sciences Centres (AHSCs): Thunder Bay Regional Health Sciences Centre (TBRHSC) and Health Sciences North (HSN).

A review of key reference documents related to Academic Health Sciences Centres in Canada was undertaken, along with twenty-four key informant interviews with Deans of Medicine and AHSC CEOs and other selected individuals, guided by a set of questions about the keys to successful integration of teaching and research in clinical settings.

Each AHSC in Canada has evolved a unique relationship with is partner medical school. In 2009, a National Task Force on AHSCs identified that in order to achieve their potential to provide "…a seamless integration of the highest quality of education of health care professionals with knowledge translation of the most advanced research, to provide the highest quality of health care delivery," (AHSC - National Task Force, 2009) AHSCs in Canada should develop more formal inter-organizational structures and governance mechanisms "to support the development of integrated strategies, plans and policies, and to ensure more effective planning, information-sharing, coordinating decision-making and policy implementation" (AHSC - National Task Force, 2010). Since that time, a number of Academic Health Sciences Networks have been developed, with more and less structured and formalized approaches.

Leaders of Academic Health Sciences Centres in Canada and internationally, ranging from large and long-standing Universities like the University of Toronto to more rural and more distributed environments similar to NOSM, such as two WWAMI sites in the USA, shared what they viewed as the most important elements of their infrastructure that supported the integration of teaching and research in their facilities, and the strength of the partnerships between the University and its affiliated academic centres.

Not represented in this report is the voice of faculty members. It is hoped that this document will provide a platform for discussion by NOSM, HSN and TBRHSC faculty and leadership as they discuss the next phase in the evolution of their partnership.

The key take-aways from the interviews are summarized here, under three broad categories: the mechanics of clinical/academic integration, leadership considerations for supporting effective collaboration and governance & strategy.

The mechanics of clinical/academic integration in an AHSC:

- Leadership structures are an essential element to ensuring that all of the individuals involved in advancing the vision of the organization are held accountable for their roles. In particular, the most effective leadership structures seemed to be those in which clinical leaders with authority in the hospital also have academic physicians reporting to them accountable for their academic deliverables.
- Targeted and strategic recruitment for AHSC academic leadership positions was recommended by key informants (KIs) as essential to advancing an academic culture, and achieving organizational goals. Joint recruitment processes with input from both clinical and academic leadership was a common tool supporting the academic mission.
- Universally, every key informant tied to a hospital described the existence of a Practice Plan in order to ensure protected time for physicians engaging in academic work as a necessity in an AHSC.
- Various approaches were described that would support advancing clinical research in the AHSC environment. Some advocated that practice plan funds should be invested in a few key PhD researchers or fellows that could set the tone for research

for (literally) decades for the organization. Others described a considerable shift to a research culture when they introduced mandatory research projects in their undergraduate curriculum. Some organizations had implemented grant writing teams, and noted their value.

- Practice plan funding was also seen as an important source of resources for administrative and other supports needed for academic work in the hospital.
- Effective faculty engagement was also seen as a critical factor supporting the development of the kind of culture and practice environment that KIs strive to create and maintain and a number of recommendations were made around celebrating excellent teaching and research, creating preceptor mentorship programs and more.
- KIs encouraged NOSM not to forget the importance of learner input – that medical schools and academic centres would benefit from developing explicit and intentional mechanisms to listen and respond to learner concerns and suggestions.

Leadership Considerations for Advancing an Academic Mission in Clinical Settings

Perhaps more important than the mechanics or tactics of academic integration, are the "soft" leadership skills and strategies that are most likely to lead to success in strengthening important inter-organizational relationships and coordination.

A framework for effective collaboration is articulated, as are key leadership approaches to ensure successful development of a shared vision. Visible senior leadership commitment to the partnership "in every action and word" was seen as essential by a number of key informants.

Discussion commonly revolved around the importance of great interpersonal relationships, of having regular formalized contact between executives of the partner organizations, and prioritizing a positive, social and collegial atmosphere that supports the development of positive and trusting relationships. Many discussed the importance of spending the resources to meet in person periodically, ideally off-site from any one organization, and of including elements other than business on the agenda.

Governance and Strategy

Beyond the leadership structures within each AHSC, key informants also described varying approaches to governance of the University-AHSC partnership, ranging from cross-appointments to boards of the organizations, and in some cases, particularly when the partnership was between more than two agencies, the creation of a separate council or formalized network to govern the relationships.

The importance of shared strategic planning, and articulating shared goals was discussed as an opportunity to maximize the organizations' collective impact on their shared goals. For example, in multi-organization partnerships, collaborative strategic planning offers an opportunity to identify which partners have chosen which research or specialization priorities. The partners can collectively support and empower each other to achieve excellence in their identified areas, rather than working at cross-purposes with each other in competition for research or other funding opportunities.

A common refrain was the concept of "the power of together" or "stronger together."

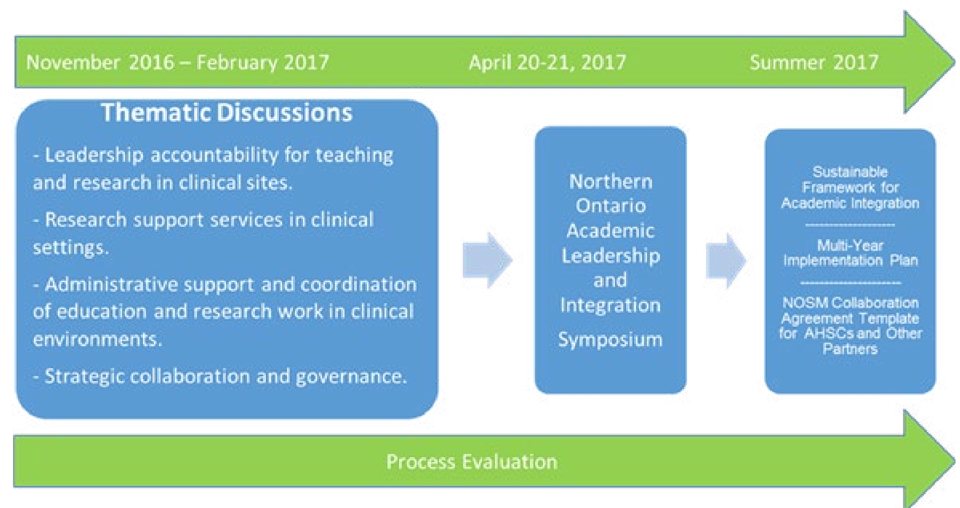
This report provides considerable food for thought as NOSM, TBRHSC and HSN revisit their existing collaboration agreements and consider the next phase of their approach to clinical/academic integration.

Introduction

In 2015-16, NOSM celebrated its 10th anniversary. Over the ten years of the school's development, NOSM and its partner Academic Health Sciences Centres, Thunder Bay Regional Health Sciences Centre (TBRHSC) and Health Sciences North (HSN) have developed systems and strategies for advancing their shared goals of advancing health care and health services access for Northern Ontarians.

The collaboration agreements between NOSM, HSN and TBRHSC are due for renewal in 2016-17. Executive leadership from all three organizations agreed that rather than simply changing the dates on existing agreements, and having them re-signed, the time is right to undertake a deeper analysis of these important collaborative partnerships, to identify what is working well, and to identify where there is room for improvement.

In particular, an opportunity exists to strengthen the integration of academic work in the day to day operations and culture of the two AHSCs. Under the guidance of the VPs of academics from both AHSCs, and the Associate Deans of Postgraduate Education and Faculty Affairs at NOSM, the Clinical/Academic Integration project was developed, described by the following schematic.



For this project, dialogue is underway across all three organizations on four key themes and on April 20 and 21, 2017 a symposium is taking place where clinical and administrative leaders from all three organizations will discuss key issues under these four themes and articulate concrete steps to advance the integration of academic work in the AHSCs, and to inform the next iterations of the organizations' collaboration agreements.

Created for the Clinical/Academic Integration project, this environmental scan document is intended to support dialogue among clinical and administrative leaders at NOSM and its two affiliated AHSCs.

Methodology

This environmental scan consisted of two key activities:

1. **A review of key reference documents:** A national task force on Academic Health Sciences Centres undertook considerable work in 2009-2010 to examine the status of AHSCs in Canada and to make recommendations for their sustainability. These documents, as well as an academic article related to the transition from a community hospital to an academic centre, formed the cornerstone of the document review, and additional documents provided or recommended by key informants were also reviewed.

2. **Key Informant (KI) interviews:** Twenty-four current or former Deans of Medicine, current or former AHSC CEOs from Canada and internationally were interviewed, along with selected other KIs that were seen to have special insights to support NOSM's dialogue. See Appendix A for a List of Key Informants. These 30-60 minute interviews were guided by the questions in Appendix B.

After brief sections describing the value and current status of AHSCs in Canada, and the AHS Network movement, analysis of the information reviewed is presented here in three sections:

1. The mechanics of clinical/academic integration (specific tactics that can be employed to support the advancement of the AHSC mandate);

2. Considerations from a leadership perspective on how leaders can best support the kind of transformation and collaboration that are needed; and,

3. Governance and strategy.

The voice of the faculty members at the institutions in these interviews is not represented here. The intention of this report is to reflect possible options for the development of the next phase of the academic partnerships between NOSM, HSN, and TBRHSC, and to serve as a starting place for discussion among faculty and leadership at the three organizations, about how they envision their partnership evolving.

Academic Health Sciences Centres in Canada

The value and challenge of integrating education and research in a patient care setting

The Academic Health Sciences Centre designation is given to hospitals that are affiliated with a University that has a Faculty of Medicine, and which engage in health professional education and research. Of Ontario's 145 public hospitals, only 24 are designated as AHSCs.

In Ontario, this designation is associated with enhanced funding to support research and education activities within the hospital.

> *"With their three-fold mission of patient care, education and research, AHSCs have the potential to "…(provide) a seamless integration of the highest quality of education of health care professionals with knowledge translation of the most advanced research, to provide the highest quality of health care delivery."* (AHSC - National Task Force, 2009)

The transition from a community hospital to an AHSC is no simple task, requiring the development of new partnerships and a degree of integration with their affiliated medical school and other health professional education faculties, a shift in culture,

changes in leadership structures and staffing within the hospital, changes in physical resources, to create class room and other spaces, as well as new considerations around financial resources (Topps & Strasser, 2010).

Across Canada, each medical school and its affiliated AHSC has evolved in a unique manner. As quoted by more than one Dean of Medicine during the interviews for this report: *"When you've seen one AHSC, you've seen one AHSC."* (AHSC - National Task Force, 2010)

A National Task Force was struck to examine the state of AHSCs in Canada and produced two valuable reports; *Securing the Future of Canada's Academic Health Sciences Centres* (2009) and *Three Missions One Future* (2010). These reports examine the AHSC models that have been developed over time and some of their strengths and weaknesses. They also recommend the evolution of AHSCs from relationships focused on hospitals and medical schools to the creation of broader Academic Health Sciences Networks (AHSNs). These reports also highlight some of the challenges of the current health care landscape and federal and territorial funding models for health care and medical education. They suggest that although AHSCs are widely recognized as an engine of innovation and quality improvement in patient care in the Canadian Health Care system, the emerging regionalization of health services does not typically include an explicit academic mandate, potentially eroding the integration of academics in clinical environments. Further, the funding formulae for hospitals and health professional education tend to put core partners in competition with each other, rather than facilitating academic partnerships in health care. Based on these reports, HealthCareCAN has developed an agenda of advocacy for new funding models that better support AHSCs.

Despite the challenges in the journey to becoming an AHSC, there is no question that AHSCs are uniquely positioned to advance the quality and safety of care across the country. In the words of Catherine Zahn, Chair of the Council of Academic Hospitals of Ontario (CAHO):

> *"As Academic Health Sciences Centres, we have a duty to the patients of today and the patients of the future. Research and innovation advance the care of patients of today and tomorrow, and through education and knowledge exchange we can have a local and a global impact on health services."*

Academic Health Sciences Networks in Canada

On completion of the AHSC environmental scan which formed the foundation of the National Task Force's work, the task force recommended the evolution of AHSCs to Academic Health Sciences Networks, defined as follows: "a set of formal partnerships created by health sciences universities, academic healthcare organizations and other provider organizations with the goal of improving patient and population health outcomes through mechanisms and structures that develop, implement and advance integrated health services delivery, professional education, and research and innovation. At the core of this network is the AHSC, working closely with other academic healthcare organizations who focus, in whole or in part on the care-teaching-research mandate." (AHSC - National Task Force, 2010)

Examples of Academic Health Sciences Networks include:

Réseaux universitaires intégrés de santé (RUIS) Model in Quebec

- Each medical school and its affiliated academic hospitals are part of the network.
- Their Management Committee typically includes the CEOs of all hospitals and Institutes, CEOs of the Health Region and the Dean of Medicine, Deans from Faculties of Nursing, Pharmacy and Dentistry and representatives from other

relevant partnerships.

- RUIS objectives are to:
    - Promote the coordination, complementarity and integration of the patient care, teaching and research missions of the partner institutions.
    - To improve access to health care by streamlining relationships between primary care providers and specialists.

Toronto Academic Health Sciences Network (TAHSN)

- Includes U of T and all of its affiliated academic hospitals.
- Subcommittees include research, medical affairs, research and ethics, communications directors, pandemic planning, education.
- Successful shared initiatives include a joint health informatics initiative.
- A Secretariat manages the partnership, with formalized procedures for developing shared initiatives, with shared resources – standardized templates etc.
- Members pay a fee to be involved, which supports the secretariat function.

SouthWestern Ontario Academic Health Network

- Vision: Transforming health in Southwestern Ontario through integrated excellence in research, education and clinical practice.
- A strategy map describes the partnership's shared values and guiding principles, and a collaborative strategic plan has been developed for 2013-2018.

Each Network has articulated a common goal and purpose. Networks offered an opportunity to make the best use of available resources, and limit duplication or competition for more than one organization to be seen as the leader in a particular area. When a collaborative network approach was taken to examining the strengths and priorities of all partners, organizations made an explicit commitment to supporting each other in achieving excellence in the areas in which they had chosen to excel – as expressed in the TAHSN principles they strive to "build capacity for all" (Toronto Academic Health Science Network, 2014).

The national Task Force developed a series of recommendations around the strengthening and evolution of AHSCs and AHSNs. At this stage in NOSM's development, Recommendation 1 aligns well with the direction of the Clinical/Academic Integration Project as a starting place for NOSM-TBRHSC-HSN's next phase of development.

Recommendation 1

> *"The National Task Force recommends that all Academic Health Sciences Networks (AHSNs) establish formal interorganizational structures and governance mechanisms to support the development of integrated strategies, plans and policies, and ensure more effective planning, information-sharing, coordinated decision-making and policy implementation."*
>
> (AHSC - National Task Force, 2010)

Notably, some key informants indicated that the broader networks that have developed over time have had mixed success, and suggested that as Canada's newest medical school, developing and formalizing the organizational structures and governance mechanisms between NOSM and its AHSCs should be the initial priority, and that expansion to a broader network should be considered only after a solid infrastructure exists to support the academic missions of the medical school and the AHSCs.

The Mechanics of the Integration of Academics in Clinical Settings

Leadership Structures: The Cornerstone of Academic Accountability in Clinical Settings

Most key informants spoke of joint hospital-university appointments as the key to integration within the hospital. Typically the model was to have leaders within the hospital with dual roles – the responsibility for both clinical and academic deliverables would rest with the same person in a given unit, department, or clinical program. For example the Clinical Lead for the surgery program would be the medical school's surgical department head.

One KI described the importance in his facility, of all physicians clearly seeing the "chain of command" through which they report both to the Chief of Staff of the hospital and the Dean of Medicine. Typically Department Heads are jointly appointed and their performance reviews often involve the CEO of the Hospital AND the Dean of Medicine.

When clinicians' leadership is also responsible for academics, this person engages with faculty not only on their clinical performance, but is the person sharing learner feedback with the physicians, and ensuring that the faculty are coached to become effective teachers. This same person also sets the research agenda and develops a strategic HR plan for the Unit / Department, to ensure that the right people are engaged to drive the Unit's clinical and academic goals. Those KIs who had experience with other models of academic leadership suggested that quality of academic deliverables is limited if the academic lead does not have "authority / clout" in the clinical setting. For example, if an administrative assistant from outside of the hospital e-mails learner feedback to a preceptor, it is not seen as having the same impact as if it were to come from a physician colleague who is their Chief of Staff or Department Head.

In environments with more than one main teaching hospital, the model had additional complexity and mixed success. One KI familiar with NOSM suggested that in Northern Ontario it may be necessary to have a dual clinical/academic lead at each AHSC site, with outreach to other non-AHSC sites. This KI suggested that if the AHSCs have a Department head at each site and only one academic leader for that discipline straddling both AHSCs, the academic lead would not have any leverage/authority in any other teaching sites except their own.

In two universities that have secondary or satellite campuses, there is a sense that the "main" academics and lead faculty are on the main campus in London or Halifax. The academic department heads are technically responsible for liaising with the faculty at the distributed campuses, but have not taken this on to the extent envisioned.

In Saskatchewan, not unlike Northern Ontario, there are two large teaching hospitals, one in Regina and one in Saskatoon, and a number of other clinical teaching partner facilities. They have developed a "Unified Department Head" (UDH) model. There is, for example, a Clinical lead for Surgery at each site, and one of them is appointed as the UDH with additional compensation. The UDH is responsible as the academic lead for Surgery for the whole province, and expected to travel to other teaching sites periodically on academic business, maintaining relationships across all relevant teaching sites and they are held accountable for doing so with clear expectations and deliverables.

Targeted and Strategic Recruitment: "You are what you recruit."

Seasoned KIs spoke emphatically on this topic. Consider the following statements:

> *A good vacancy is better than a bad recruit.*
>
> *Never appoint someone to a permanent position who doesn't add something substantial to the academic enterprise. Fill gaps with temporary appointments, but be "stingy" with permanent appointments.*
>
> *Grow local people into senior clinical positions. Associate Deans can be hired from elsewhere but the chief on the ground needs to know the local context and have credibility.*
>
> *Recruiting a handful of people in a targeted way can set a new tone. At the University of Ottawa, three recruits set the tone for 25 years and had a profound impact on quality of care, patient outcomes, population health and quality of education.*
>
> *Consider joint appointments with the health system.*

While some KIs acknowledged that in downtown Toronto or other major centres, they may enjoy a "buyer's market," with access to a large pool of experts interested in being located there, all suggested that by clearly articulating strategic clinical and academic goals, and investing in targeted recruitment of a few key leads, NOSM could create a groundswell of academic activity and a shift in workplace culture.

Strategic hiring was seen to be time consuming, but worth the effort.

> *It takes a lot of effort … rigorous review is needed of every new joint physician appointment – once the Job Description is completed by the Department head, if it's related to research, the VP research signs off … it's a lot of work for a Department Head to get everything lined up.*

At Sunnybrook

- Any physician's first contract is only 3 years in duration, with clear academic deliverables. If those deliverables are not satisfactory at the third of three annual performance reviews, a permanent contract is not awarded.
- Each Department Head manages a 5-year strategic recruitment plan, accounting for attrition, planned growth and academic priorities, and every recruited physician fits that recruitment plan
- "Spires of Excellence" in research were developed, and "if someone's research didn't fall under one of those spires, they were not recruited."

At Notre Dame Hospital

- A decision was made to only hire physicians who had published research "and it became a tipping point."

At WWAMI Montana

- The Clinical Dean worked with a CMOH on a policy "hire only physicians who WANT to teach" and it changed the culture of the community

At Schulich School of Medicine & Dentistry in London

- A Joint Professional Staff HR Committee (JPSHRC) guides all hiring decisions
    - Co-chaired by the Vice-Dean and the VP of Medicine at the Hospital
    - Includes senior executives from hospitals and chairs/chiefs of departments of the medical school
    - Positions / Job Descriptions are not sighed off if the academic/clinical sides of the committee are not in agreement
- Joint HR Planning
    - Each Department has an annual HR plan addressing clinical/academic needs and goals
    - Academic Role Categories have been defined to describe a range of academic and clinical deliverables, for a range of roles / physician interests that will support the hospital and medical school to achieve its shared goals.

    » https://www.schulich.uwo.ca/hospitalandinterfacultyrelations/faculty_affairs/academic_role_categories.html

Where to start with a new approach to recruitment?

A few KIs suggested that implementing new contract models and compensation models cannot be done quickly. It was generally suggested that the emphasis needs to be on recruiting new physicians with a new contract model, and attracting the kinds of physicians who are already aligned with the culture you wish to create, rather than spending considerable effort requiring current physicians to change their approach, model of work.

The idea that "for a while there will be two classes of citizens" was mentioned more than once, and that it was necessary to think in terms of 20-30 years from now, and the contracting models that ought to be in place then.

One KI proposed a stepwise approach for NOSM:

1. Create an integrated academic strategic plan across both AHSCs, including confirming research priorities across sites, as this will determine key hiring strategies.
2. Grandparent in the physicians that are already there.
3. Set clear policies and high performance expectations, in terms of teaching or other academic deliverables, and no new hires without a university appointment.

While a few KIs used the term "evolution vs revolution" as the approach that is likely to yield the most success, one KI notably indicated that once a clear vision is articulated and an equitable new approach is determined to guide the way forward for the organization, it is best to just implement it. In contrast to the other KIs, this KI promoted "revolution vs evolution."

Supporting Research in Clinical Settings

Practice plans were seen as essential to reducing disincentives to participate in research. In addition, discussions with KIs about research otherwise revolved around 4 themes:

1. Advancing research by its inclusion in the undergraduate curriculum.
2. Clarifying organizational research priorities.
3. Advancing research by strategic recruitment / fellowships.
4. Practical supports to researchers in grant-writing and research ethics approval.

Inclusion of research projects in the undergraduate curriculum

Dr. John Steeves, Dean of the New Brunswick Campus of Dalhousie, said that the most important contribution to New Brunswick health, and the most important initiative that stimulated clinic-based research since the creation of the NB campus was the inclusion of a research project in the undergraduate program.

- Every MD student undertakes a research project.
- The project is funded because it is part of the core curriculum… so 30 students annually have funds to support clinical research.
- Physicians with interest and expertise suddenly have access to a resource to advance their questions.

At Schulich School of Medicine & Dentistry, research is also built into the MD program, with a requirement to undertake case reviews and small research projects, including a second year Quality Improvement initiative. This is seen to enhance learners' appreciation for lifelong learning, and to advance a culture of quality improvement.

Similarly, at the University of Newcastle in Australia, a mandatory research project during the one year Longitudinal Integrated Clerkship their third year students undertake, a year-long research project is seen as having significantly advanced a culture of research at their distributed sites. Research concepts are woven into the curriculum in the early years of their training, and on-line resources have been developed to support their research projects in the communities. These online resources are also valued by physicians, who, themselves, may not have confidence in their research skills. PhD faculty on campus support the students remotely in the design of their projects, in collaboration with physicians in the clerkship community. Some papers have been published from these initiatives, and practice improvements have been made based on the findings of these initiatives.

Clarifying Organizational Research Priorities

Deans of more rural medical schools discussed "the power of small" and the opportunity that exists in rural environments to target meaningful research to the needs of the residents in the surrounding area. They suggested it was important not to replicate research undertaken elsewhere.

One Dean suggested that all research underway likely fits into common areas that resonate with community practitioners, such as quality of care, patient outcomes, and population/public health, and that setting priorities under headings like these, and providing tools and support, is likely to advance interest in research.

Given the importance of aligning recruitment with research priorities, and given the various players in research in Northern Ontario, one KI suggested the importance of creating a joint academic strategic plan, confirming the collective and individual research priorities of the research partners across the network. This KI suggested that if our goal is to serve the needs of Northern Ontario and optimize the use of available resources, it would make sense for the research institutes and universities to undertake joint planning, thus ensuring that organizations develop complementary research agendas, and are not in competition to advance research on the same topic.

Advancing research through strategic recruitment

More than one Dean of Medicine and CEO indicated that over the course of their careers, they have developed an understanding that it is not practical to seek to advance a research agenda without investing in a few career researchers (PhD level). Consider the following statements:

> *Hobby researchers are almost never successful – stretch your budget and hire one or two solid PhDs.*
>
> *It is expensive to take doctors and turn them into researchers – engage physicians selectively in a way that can add value.*
>
> *Academic deliverables can include research revenue. For example, for every $1 of research salary paid to a lead scientist, there can be an expectation that they produce $3-$4 more.*

Another approach that was mentioned a number of times was the importance of introducing fellowships. One KI suggested that departments not currently able to create a fellowship, can invest in a young keen physician to participate in a fellowship elsewhere with a return of service to Northern Ontario.

Practical supports to researchers in grant writing and ethics board approval

While practice plans and the need to engage core researchers were seen as essential drivers of clinical research, a number of practical considerations were raised about supporting research in clinical settings, including in distributed environments.

One suggestion was to create a network of physicians who do engage in research, creating a forum for these physicians to be engaged with one another and with students.

The University of Washington supports research networks and a research support office that is accessible in all of the WWAMI states.

The University of Ottawa has set up a grant support team, to help with research grant requests.

The University of Newcastle Australia, has developed course content about research in their undergraduate program, as well as on-line tools for the undergraduate students to access during their clerkship year, when they are working on their research projects. The research projects are supported by a PhD researcher on their home campus, and also involve physicians at the distributed site where they are completing their clerkship. Community physicians who are not career researchers, also find the on-line tools to be helpful supports for the research projects they are supporting.

Another common statement was the challenge of research ethics approvals, and the importance, if possible to mobilize appropriate agencies and simplify the process. While it needs to be robust enough to satisfy everyone's needs, there should be a single process.

Practice Plans or Alternate Funding Plans

"In the absence of practice plans, it is not possible to incent research."

Across all of the AHSCs and medical schools that were interviewed, practice plans were in place. Varying models were identified, and a number of suggestions were offered on how these might be implemented in a setting that does not yet have practice plans universally in place.

What is a Practice Plan or Alternate Funding Plan?

Essentially, a "Practice Plan" or "Alternate Funding Plan (AFP)" describes a practice of pooling available resources (from clinical revenue as well as ministerial or other sources), to support both the clinical and academic mandates of academic physicians and teaching centres. These funds can be used to support academic activity, ranging from teaching, faculty development, or research activity, including hiring PhD or M.Sc. academic research leads, engaging research fellows, or supporting young physicians to undertake a fellowship and return to the AHSC with additional expertise. In essence, an AFP aims to ensure that all aspects of academic work are valued and compensated and that all academic deliverables are achieved.

In practical terms, physicians pay a proportion of their clinical income into a shared pool of resources, which also includes AFP and other funds, and they are compensated (paid back) from that pool of resources for their clinical and academic contributions to the organization. This eliminates the financial disincentive for clinicians to participate in teaching and research, and rewards academic contributions.

In Saskatchewan, a provincial AFP is currently being implemented.

» http://www.skacfp.ca/Provincial%20Academic%20Clinical%20Funding%20Plan-Framework.pdf

and is seen as the means to:

- recruit and retain an appropriate and excellent academic clinical workforce
- offer financial stability, transparency and predictability in service agreements with faculty members
- align recruitment with organizational needs and broader system priorities
- support MDs in their chosen careers
- improve performance in clinical and academic service
- increase alignment between payment and contracting methods and the needs of the population for excellent clinical service
- support the goals of all campuses, sites, and distributed learning sites.

(Government of Saskatchewan , 2014)

How is the rate at which clinical income is tithed determined?

- This is a decision that varies from AFP to AFP, and even Department to Department.
- In Toronto, some are more "equal" (identical contribution regardless of clinical income) and some are more "equitable" (scaled contribution based on clinical income). Rates of gross earnings held back range from 8-9% to 15-20%, and pays for fellows, admin support, etc.
- In Alberta, contributions are indexed by tax bracket, such that higher clinical earners pay a smaller % of their income, and there is a cap on total contributions.

What does this mean for AHSC physician roles?

Approaches to developing service agreements with physicians in the context of a practice plan are highly variable.

- In Saskatchewan, the provincial practice plan currently under development seeks to have one faculty member role description "faculty is faculty is faculty."
- At WWAMI, Montana, every clinical faculty member is required to undertake 50 hours per year of teaching.
- At Schulich School of Medicine & Dentistry, varying roles are identified which have different academic responsibilities (Clinician Teacher, Clinician Researcher, Clinician Scientist, Clinician Administrator). Each physician contract is developed based on one of these physician roles, and is associated with ratios of how the physicians spend their time. The title is not necessarily tied to a specific level of compensation, as these are variable by discipline or department. Links to documents describing the physician roles and responsibilities can be found here:
    - » https://www.schulich.uwo.ca/hospitalandinterfacultyrelations/faculty_affairs/academic_role_categories.html

Who administers the pooled funds?

Practice Plans were in some cases administered centrally by the Dean of Medicine, for the entire medical school, and in other cases, the practice plan details varied from Department to Department, with the Department Head accountable for the pooled resources.

- At Sunnybrook, every department or program has a plan that determines how resources are shared (clinical income, university or ministerial funds for teaching / research).
- At Queen's the Dean is the CEO of the AFP.
- In the province of Saskatchewan all clinical faculty are part of a single AFP administered by the Dean of Medicine.

Where do the funds for practice plans come from?

- Funds that are pooled and made available for compensation of clinical and academic work comes from a number of sources including
    - Clinical revenue in the Department / Facility
    - AFPs that are negotiated with ministries to support teaching and research
    - Research contributions

According to one KI, a study undertaken in Quebec indicated that an effective practice plan requires an additional 17% of funding above the clinical revenue of participating physicians.

A Requirement for all Physicians at an AHSC to have a Faculty Appointment

Nearly every KI discussed this as the desired state. It was felt that in an academic centre, affiliation with the University should not be seen as optional, and that teaching should be considered to be part of the role of every physician in an Academic site, that is part and parcel with being employed there. It was suggested that research can be more flexible, that targeted hiring of PhD researchers was essential to excelling in research, but that in today's climate, teaching should just be seen as part of the job at an AHSC. One KI pointed out that a physician would not expect to be employed at a Harvard

affiliated hospital and not be associated with the teaching that is taking place there. This KI indicated that this should be the same expectation of physicians at any Canadian academic centre.

> *"The idea of "if you want me to teach you have to pay me extra" needs to be a thing of the past in an academic setting. Leadership needs to say "if you want to work with us, you are a teacher with this many teaching hours, and if the reviews are poor, you are put on probation and coached to improve your skills."*

Deans of Medicine indicated that a requirement to have a University appointment for every physician was part of their affiliation agreement with their partner hospital(s), or that they were actively moving in that direction.

Administrative Support Needed to Support the Academic Mission

The Deans of Medicine and CEOs interviewed did not comment to a great extent on the questions related to administrative support.

In the larger centres, KIs indicated that the support for learners at the hospital sites was provided by the hospitals – that the university itself, such as U of T, did not have a considerable role in determining the administrative supports available at the clinical sites. However, given U of T's long history, the networks and integration of teaching and research have developed over 100+ years, and executive leadership may have had less involvement in its development or needed modifications.

It was suggested that funds to cover the cost of admin support can be generated through practice plans. In addition, some government funding is provided to some hospitals to support academic administrative activities (e.g. GFT Secretary funding, Hospital Academic Costs (HAC) funding).

One of the more rural medical schools pays the regional health authority to provide administrative support for full time faculty, but the former Dean does not recommend this approach, as most of the administrative personnel's time is consumed with clinical work, and the medical school does not have leverage to ensure that the support meets their needs.

In Saskatchewan, there are no formal Academic Health Sciences Centres and administrative support is all provided by the university, "because the hospitals are not getting the top-up to be teaching sites."

Faculty Relations

KIs agreed that at the heart of the medical school is the experience of students and patients in hospital and other clinical settings and that positive engagement of faculty members across an AHSC as well as in distributed sites is imperative to the success of the medical school. The Deans of Medicine and CEOs of hospitals that served as KIs had a number of suggestions on approaches to ensuring excellent relationships among faculty and between faculty and the hospital and medical school. Foundational to all of these recommendations is the idea that these relationships must be true, authentic relationships of respect and recognition. The following key recommendations came from the Key Informant Interviews.

A Great On-boarding Process

Dr. Gerry Cooper, Associate Dean for the Windsor Campus of Schulich School of Medicine & Dentistry, highlighted the importance of setting the tone for the faculty member's relationship with the medical school and hospital through an intentional on-boarding process. At Schulich Medicine, a program has been developed which begins with an

effort to make it as easy as possible for busy clinicians to apply for a faculty appointment (with a one-size-fits-all-departments on-line application), and includes an orientation package and an annual New Faculty Orientation event. They have attractive websites that can be visited discreetly and anonymously by physicians who are considering applying for a faculty appointment, or joining the team.

» http://web.schulich.uwo.ca/affiliates/future_education/

» http://www.schulich.uwo.ca/communications/windsor_newsletter/index.html

Provide Support, Services and Information that Faculty Need

- Make it easy for faculty to renew their privileges, consider organization-wide credentialing
- Ensure that faculty receive feedback from students systematically

Recognition and Respect

- Celebrate and honour achievements – "make sure everyone knows when a paper is published or other academic achievements are made"
- Recognize and celebrate great teaching
  - Teaching awards
  - Role model program for faculty – not everyone is a natural teacher - give others someone to try to emulate

In-Person Contact

It is expensive and hard to sustain in distributed environments or environments with multiple sites, but in addition to maintaining collegial relationships at the level of organizational leadership, clinical faculty value contact with the University. Otherwise, faculty at satellite campuses can feel disenfranchised, and as though they are "junior partners" that are less valued than faculty at larger sites.

WWAMI Clinical Dean for Montana said "I can't do my job from an office" and spent 120 nights in a hotel last year. He indicated that where the relationships are just lukewarm, momentum at the teaching site tends to fall.

Learner Engagement – "Not About Us Without Us"

Dr. John Dornan suggested that leadership tends to underestimate the value of learner contributions. He noted "they are just like us 10-15 years ago and are usually right on" in their observations of administrative or other improvements that are needed. He suggested that the greatest enhancements to the medical school experience and outcomes would be achieved if the school found mechanisms to listen to learners, provide them with clear roles, and to "just do what students say… be dynamic, responsive, and meet with students."

A Framework for Effective Collaboration

Based on many years of interacting with the academic medicine sector and opportunity to study and observe how medical education organizations collaborate and function optimally in Canada, Mary-Kay Whittaker identified some key components for effective collaboration. In her observations, the highest functioning collaborations in care and education and most effective teams had the following attributes:

1. An explicit focus on high quality, patient-centred care as the ultimate driver of the partnership.

2. A shared vision for education, and commitment to health professional learners as our future care providers.

3. A culture of open communication that includes trust, respect, transparency and shared governance.

These three factors enable buy-in and engagement at all levels, to "create a playing field where you can get things done."

In addition to these philosophical and values-based underpinnings, Ms. Whittaker observed the following, more operational features were consistently in place for the highest functioning teams:

4. Processes and systems in place to support their shared mandate, including shared governance structures, clear roles and responsibilities, clarity on shared resources, and conflict resolution or ultimate decision-making mechanisms that people believe in.

5. Systems to support the team to work well together, including professional development / training on leadership and quality improvement.

Ms. Whittaker's final observation was the importance of clarity on the part of executive leadership about their accountability for the deliverables of the partnership, and the importance that their actions embody their complete commitment to the partnership.

This framework is highlighted here, as it is echoed throughout the following sections of this report, which describe key aspects of an AHSC partnership, and factors influencing their success.

Other Key Informants (KIs) indicated that partnerships and integration are the new way forward, the new way to "win." Several described the toxic effect they have experienced or witnessed of "old-school approaches" of "fighting to be the big guy" or "clawing for the top" and that these perspectives need to be left behind. For success in this endeavor, it was suggested that leaders must recognize that "it is togetherness that can give us power" - that a strong partnership and integration among diverse organizations is harder won, and is what will ultimately lend the partners the power to achieve their desired outcomes.

Leadership Considerations for Advancing the Academic Mission in an AHSC

This section of the report highlights key factors for success and challenges to avoid in advancing the integration of education and research in an Academic Health Sciences Centres.

A number of KIs identified that NOSM, HSN and TBRHSC have an enviable opportunity to develop a fresh model suited to their environments. Other AHSCs are encumbered with relationships and structures that have existed for over 100 years. While developing an integrated medical education structure with a single medical school and two AHSCs represents some unique challenges, Northern Ontario partners have an opportunity to learn from the experiences of other centres and develop something uniquely suited to their needs.

Pursue Clarity of Vision, Before Wading into the Details

Karen Michell, the ED of CAHO, clearly expressed a sentiment of many KIs when she implored *"Don't be bogged down by what IS or what happened before. Focus on what CAN or SHOULD be"* …before you wade into the details of agreements.

A number of KIs discussed the importance of articulating the shared vision, shared goals, and the values that will guide work, before delving into the challenging dialogue around leadership structure, shared financial resources etc. They indicated that continually returning to "core principles" that everyone had agreed to, greased the wheels of the dialogue.

> *"The Medical School and the AHSC have to be joined at the hip in a relationship founded on enormous respect and shared target outcomes."*
>
> *"If you rush the documentation just to get it done, the accreditors are happy, but the relationships are not functional."*

This key informant described a model that was used when establishing collaboration agreements for a number of teaching sites. A working group was established, before ever engaging with their legal teams, to develop the principles and key elements of their partnership in their own words. They then sent this to a lawyer to "legalize." The group then reviewed the agreement again to ensure the spirit of the agreement was not lost in the process.

Visible Leadership Commitment is Essential

A number of KIs referred to the important role of leadership, beyond the nature of the decisions they make, but in their ability to influence people and send messages by their example, and what they are seen to be endorsing. Consider the following statements from KIs:

> *Visible support and leadership are essential at the very top.*
>
> *Every action and word has to be seen as supportive – slurs and innuendos behind closed doors about partner organizations have an enormous impact on the relationship.*
>
> *In addition to hospital and medical school VPs, Chiefs of Staff need to be on board – physicians need to see their leaders buying into the model.*
>
> *The medical school needs to be joined at the hip with the hospital in a relationship founded on enormous respect and shared target outcomes.*

Trusting Relationships and Regular Collegial Contact: "It's a contact sport"

Almost without exception, the 24 Key Informants opened their comments with the importance of the interpersonal relationships between the organizational leadership, and their commitment to making time to meet regularly and systematically. Many stressed the importance of including social activities and not only business in the agendas.

In particular, "great personal relationships between the Dean of Medicine, CEO and VPs of the hospital" were suggested as essential elements to a successful AHSC partnership.

The Toronto Academic Health Sciences Network (TAHSN) started as a "breakfast club of CEOs, Board Chairs of the hospitals, and medical school executives. The chairs of this breakfast club gradually evolved its role to increasing levels of formality, but at the heart of this extensive network was a regular collegial, informal meeting of senior executives, which allowed them to build trust and form a broader alliance.

In Ottawa / Victoriaville, there is a forum for CEOs and the Dean of Medicine to meet 3-4 times per year, for ½ day, in rotating locations. They discuss shared priorities and challenges, strategic priorities.

For medical schools with distributed sites or satellite campuses, the importance of in-person contact was stressed. Jay Erickson, Clinical Dean of the WWAMI Montana campus said, of his role in maintaining relationships with 56 hospitals and clinics across vast distances "I can't do my job from an office." Last year he spent 120 nights in a hotel, meeting with clinical teaching sites.

One executive described the importance of meeting off-site, suggesting that when the leadership met off-site and in a different social environment, they were better able to see new solutions and approaches to their shared challenges.

At the University of Calgary, the investment was made to have twice annual retreats for the leadership and their families at a nearby resort, where intensive 1.5-day long meeting agendas were set in a fun off-site atmosphere with social activities in the evenings and over meals.

Governance and Strategy

The importance of cross-appointments to the governance structures of each hospital and medical school was discussed by all KIs, and the importance of inclusion of these partners in strategic planning.

In addition, a separate council to oversee the academic partnership existed in most cases, with some factors for success and challenges discussed below.

Hospital Boards

It was generally recommended that the Dean of Medicine be a voting member on its affiliated AHSC board. There was also discussion about the board itself, and the importance for the board to recognize its academic mission within its mandate and ToR.

To support this end, the following suggestions were made:

- Standing agenda items should include not only finance and quality of care, but research and education.
- Education and research committees should report to the board.

- The organization's balanced score card should include research and education priorities and indicators.
- When strategic planning committees or working groups are struck, they should include representation from the medical school.

Medical School Board/Governance

Academic hospital CEOs generally expect close contact to the Dean of Medicine, and participation in medical school governance as a member of the Board. Deans of smaller satellite sites expressed a sense of disenfranchisement, or "junior partner" status, when the governance structure was not inclusive of their site. When medical school strategic planning is planned, and a working group or committee is struck, it is recommended that it include representation from the AHSC.

Council overseeing the partnership

KIs were unanimous in expressing that a regular forum for discussion is needed at a number of levels. Deans and CEOs all expressed the value of regular contact. In some cases these were formalized governance structures with Terms of Reference, and commitments to share resources, while others took the shape of monthly or quarterly meetings where issues were discussed related to teaching and research, addressing challenges that had arisen, and setting priorities.

One suggestion was made to create a single body that would include the Dean, Associate Deans of UME and PGE and for each AHSC, the CEO and VPs of research and academics.

In Ottawa, where several hospital sites merged into one, the CEO and Dean of Medicine were required to work with the multiple sites to determine a framework and approach to developing areas of excellence at each site consistent with its infrastructure and capacity.

One CEO of a hospital with multiple sites recommends that NOSM, HSN and TBRHSC develop a common strategic plan for their academic development, planned jointly, so that they are not in competition with each other. He said, for example, that every hospital site wanted to have a neurosurgery specialty, but that to maximize the impact of the organization, and to best leverage the resources and capacity of each partner, it was important for a leadership group to look at the broader objectives of the collective to determine the most equitable way to set priorities across sites.

Conclusion

This external environmental scan has provided the perspectives of leaders in Academic Health Sciences Centres across Canada and Internationally. It is hoped that the mechanics of integration, and the leadership considerations described here will provide a springboard for meaningful discussion as NOSM, HSN, and TBRHSC clinical and administrative leaders embark in dialogue to envision the next phase of their collaborative relationship.

References

AHSC - National Task Force. (2009). Securing the Future of Canada's Academic Health Sciences Centres.

AHSC - National Task Force. (2010). Three Missions One Future.

Government of Saskatchewan . (2014). Provincial Academic Clinical Funding Plan Framework Proposal, Approved for implementation in fiscal yaer 2014/15.

HealthCareCAN. (2014). The Sustainability of Health Research within Patient Care & Educational Settings: Towards and Action Plan.

Schulich School of Medicine & Dentistry. (2011). Academic Role Categories - A personnel model for Clinical Departments of the Schulich School of Medicine & Dentistry.

SouthWestern Academic Health Network. (2013). SWAHN Strategic Plan.

Topps, M., & Strasser, R. (2010). When a community hospital becomes an academic health centre. Canadian Journal of Rural Medicine, 19-26.

Toronto Academic Health Science Network. (2014). TAHSN Strategic Framework & Operations Manual.

Appendix A - List of Key Informants

Acknowledged with gratitude.

M. Jean Bartkowiak President and CEO Thunder Bay Regional Health Sciences Centre CEO, Thunder Bay Regional Health Research Institute Thunder Bay, ON	**Ms. Susan Pilatzke** Senior Director, Health System Transformation North West LHIN Thunder Bay, ON
Mr. Fraser Bell Vice President, Planning and Quality Northern Health Prince George, BC	**Dr. Jean Rouleau** Scientific Director Institute of Circulatory and Respiratory Health, CIHR Ottawa, ON
Dr. Gerry Cooper Associate Dean, Windsor Campus Schulich School of Medicine and Dentistry Windsor, ON	**Dr. James Rourke** Professor of Family Medicine, Former Dean of Medicine (2004-2016) Memorial University of Newfoundland St. John's, NF
Dr. John Dornan Assistant Professor Department of Medicine, Dalhousie University St. John, NB	**Dr. Denis Roy** President and CEO Health Sciences North Sudbury, ON
Dr. Jay Erickson Assistant Dean for Regional Affairs, MT WWAMI Clinical Coordinator Whitefish, Montana, USA	**Dr. Preston Smith** Dean of Medicine University of Saskatchewan Saskatoon, SK
Mr. Paul Heinrich President and CEO North Bay Regional Health Centre North Bay, ON	**Dr. Margaret Steele** Dean of Medicine Memorial University of Newfoundland St. John's NL
Dr. Carol Herbert Professor and Former Dean UWO Schulich School of Medicine London, ON	**Dr. John Steeves** Associate Dean Dalhousie Medicine, New Brunswick St. John, NB
Professor Nicky Hudson Deputy Chair, Australian Rural Health Educators Network Conjoint Professor, University of Newcastle Australia	**Dr. Sarah Strasser** Head of Rural Clinical School University of Queensland Australia
Dr. Myra Hurt Professor and Senior A/Dean for Interdisciplinary Medical Sciences Florida State University, USA	**Mr. Terry Tilleczek** Senior Director, Policy and Health System Planning, North East LHIN Sudbury, ON
Mr. David Levine Former CEO, Ottawa Hospital	**Dr. Peter Walker** Professor of Medicine and Former Dean of Medicine, University of Ottawa
Dr. Donald Livingstone Internist at Sunnybrook Health Sciences Centre Former executive recruitment consultant Toronto, ON	**Ms. Mary-Kay Whittaker** Principal Consultant Redline Consulting Toronto, ON
Dr. Barry McLellan President and CEO Sunnybrook Health Sciences Centre Toronto, ON	**Dr. Catherine Zahn** CAHO Chair President and CEO, CAMH Toronto, ON

Appendix B – Key Informant Questions

Key partners, Collaboration and Governance

- Is your organization part of an academic Health Sciences Network? Other than the teaching hospital and medical school, who are the key partners?
- How is the partnership (s) governed?
- Are you able to share any of the following?
    - High level descriptive documents / schematics about the partnerships and governance structure
    - Collaboration agreement documents
    - Governance or key committee ToRs

Leadership in changing and sustaining the organizational culture

- What are the most effective activities and interventions that have created and sustained an academic culture in your organization?
- How do you support a positive learning environment where students and residents are seen as a valuable resource and not a burden

Key administrative levers that sustain the integration of education and research in clinical settings

- What would you say are the most important administrative and structural features of your model that that sustain the integration of education and research in the hospital?
- What leadership accountability measures are in place, to ensure that a focus on research and education?
- What structural/human resources changes have you implement to support this partnership? How effective have they been?
    - General staffing changes
    - Jointly recruited or shared positions?
    - Leadership structure changes?
- How have you involved physicians in ensuring the success of the academic mission?

Supports for Physicians

- What are the most effective tools employed in your organization to support physicians in their roles as academic leaders, educators, and researchers?
- How is effective educational behavior by faculty ensured?
- How does your physician compensation model counter the disincentive to participate in education and research activities for non GFT physicians
- What supports exist for clinicians to engage in research?

Practical Considerations

- How are financial resources dedicated to the AHSC partnership managed? Do you share the governance of available funds?
- Communications – do you have an explicit shared approach to communications about initiatives, issues and successes related to your partnership?
- How do your medical school and hospital collaborate to monitor compliance with academic accreditation requirements and to prepare for accreditation review processes?

Administrative Support

- What types of administrative support does your staff provide to
    - Learners
    - Faculty
    - Physician academic leaders
    - Researchers

Evaluation / Monitoring

- How do you measure the effectiveness / quality of your partnerships? What key indicators do you monitor?