

The Way Forward
Implementation Plan for the College of Medicine
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Introduction

The College of Medicine is vital to the University of Saskatchewan; we define ourselves as a medical-doctoral university and the College of Medicine is central to our identity. In a medical-doctoral university holding membership in the U15, the medical school is the flagship college, an academic powerhouse making a significant contribution to the success of the entire institution. The College of Medicine is also important to the province; as the only medical school in Saskatchewan, we have a responsibility to train the next generation of physicians to serve the current and future healthcare needs of the people of the province and produce research that contributes to improved patient outcomes.

A New Vision for the College of Medicine (<http://www.medicine.usask.ca/renewal.html>) highlighted several significant challenges that have plagued the College of Medicine. First, its undergraduate medical education program is on warning of probation and may well become the first College of Medicine in Canada to be placed on probation twice. Second, student performance in national exams is at the bottom of all Canadian medical schools and our graduates now fall below the mean score for all applicants. Third, the College of Medicine lags far behind its peers in research productivity despite significant investments in world-class facilities. Approval, in principle, of the new vision by faculty council and university council confirms a compelling case was made for a significant restructuring and a paradigmatic cultural shift.

The root cause of these challenges is a structural flaw – underlying structures place priority on clinical service delivery to the detriment of the teaching and research missions of the college. This has created a culture that pits clinical service delivery against teaching and research and which is perpetuated by a misalignment in the amount of resources and the time devoted to these activities.

Without changes to the underlying structures that align resources and priorities, and a reformed and robust governance structure, the college will not advance. In order to change behavior, structure must change. Structure, in this context, is more than an organizational chart or a governance model and includes all the norms, policies, processes and relationships that influence behavior.

While this realignment is primarily designed to strengthen the teaching and research missions of the college it will also be of benefit to our service delivery partners as the overall goal is to improve patient outcomes via the training of outstanding clinicians and the generation and dissemination of new knowledge. It is to our mutual benefit to create a culture where teaching and research and clinical service co-exist and are mutually supportive.

This restructuring presents a significant opportunity to re-position the college for future success. Provincial geography and demographics mean that the college is uniquely positioned to lead in areas of first nation's health, rural and remote education, inter-professional education, and service delivery partnerships. In fact, the college has a responsibility to lead in these areas in partnership with health regions and government.

The purpose of this document is to further articulate how the College of Medicine must realign underlying structures in order to achieve the new vision.

The Changing Environment

The environment in which the college operates has changed significantly over the last twenty years. In particular, the following changes (and a concomitant failure to respond) have profoundly affected the college and contributed to the current misalignment:

- Establishment of health districts and loss of separate charter for Royal University Hospital (RUH) resulted in service being delivered in a clinically focused environment less connected to the university. This also brought with it a shift in focus from the university mandate of teaching and research to predominantly clinical service delivery.
- Restructuring of clinical practice plans and the introduction of “business mode” for faculty allowed them to take their practice outside the university and significantly reduced the ability of the college/department to pool and direct clinical earnings to support faculty heavily involved in teaching and research.
- Hiring of faculty in the Clinical departments has historically concentrated on service delivery and in the Biomedical departments to support service teaching in Arts and Science.

These changes provided incentives for clinical faculty to pursue more clinical work to the detriment of the academic mission. The consequences of such a move have been recognized by many medical schools, including Canada’s leading school:

“Competitive and financially unrestricted private practice is incompatible with academic goals. Group practices with distributed earnings to support the academic mission are the norm to ensure academic productivity.” (University of Toronto faculty of medicine procedures manual for policy for clinical faculty, 2008, p. 3)

In tandem with these changes, demands on the teaching and research mission were also increasing:

- The growth of distributed medical education (DME) is a significant and on-going commitment of the college. Accreditation visits have highlighted the unsuitability of historic structures to successfully deliver on this key commitment.
- Increased class size from 60 students in 1993 to 100 students beginning in 2012. This increase placed additional stress on undergraduate medical education, particularly teaching. Accreditors identified structural issues of how clinical teaching is organized and assigned and highlighted the need to ensure a comparable educational experience across all instructional sites, as is expected at all other accredited medical schools in North America.
- Increased number of residents from 244 in 1992 to 437 in 2013 which has resulted in more time being dedicated to resident training.
- Increasingly competitive and challenging research funding environment with focus on team science, translational research and patient outcomes.

To compete with our peers, and address these challenges, we must fundamentally restructure the college. The structures that served us well in the past no longer support our aspirations nor do they equip us to address our current challenges and to take advantage of the opportunities present. Through a process of extensive internal and external consultation, research and study we know that three

fundamental aspects of the college must change: faculty, research and governance. We must also develop mechanisms to demonstrate progress in the change process.

Development of the Implementation Plan

The development of the implementation plan was heavily informed by the Dean's Advisory Committee (DAC) and the working groups (WGs) established by the DAC. The Dean's Advisory Committee was initially established in August 2012 to advise the dean on the elaboration, refinement and implementation of the concept approved by University Council on May 17, 2012. Deliverables included the establishment of a number of working groups, determining membership for each working group, determining deliverables for each working group including timelines, and overseeing and ensuring appropriate integration of all the working groups. The terms of reference for the DAC were amended slightly in January 2013 and the purpose shifted to providing advice to the dean on the development of an implementation plan for the vision described in *A New Vision for the College of Medicine* approved by University Council on December 20th, 2012. The deliverables added included review of interim and final reports from existing working groups, supporting the work of the working groups, and providing ongoing advice and guidance to the dean on the development of an implementation plan. A full description of the DAC and the WGs can be found at <http://www.medicine.usask.ca/renewal/committee.html>

As of September 4th, there have been 19 meetings of the Dean's Advisory Committee. A full record of these meetings can be found at <http://www.medicine.usask.ca/renewal/meetings.html> A half day retreat was held on August 19th specifically to discuss the implementation plan prior to its publication.

In addition to participation in the various working groups, input from members of the College of Medicine community was received through four town hall meetings in Saskatoon (3) and Regina (1) and two special faculty council meetings. These face-to-face meetings provided a forum for debate and discussion of WG reports as they were received by the DAC.

Information was disseminated to the College of Medicine community via regular updates from the Dean's Advisory Committee co-chairs. A fulsome record of communication can be found at <http://www.medicine.usask.ca/renewal/communications.html>

The DAC was established to provide advice to the dean on the development of an implementation plan. Once this plan is tabled at University Council, the DAC's mandate will be deemed complete and the executive of the college will assume responsibility for carrying out the steps required to restructure the college. It is envisaged that a number of working groups (Distributed Medical Education, Change and Transition, Financial Management, and Faculty Engagement) will continue, but they will report to the executive of the college.

Towards Alignment

The overarching principle informing this restructuring is that of alignment. In particular, we must align the three fundamental aspects of faculty, research, and governance and partnerships.

We must:

- Align clinical resources with clinical work and academic resources with academic work, although we recognize that these functions overlap to some extent

- Align our research priorities with provincial, national and international population needs and health priorities
- Align governance structures and partnerships with the priorities of the college providing flexibility to respond to the dynamic environment

The plan must deliver on alignment and to do so we have set out three clear objectives.

Objective #1: Re-align Faculty Complement

The faculty complement outlined in this document (Table 1) will bring the College of Medicine in line with its peers. While the current situation requires a “made-in-Saskatchewan” solution tailored to the particular needs of the college, this plan reflects best practices at other successful medical schools in Canada. While every medical school is unique there is one fundamental reality that must be recognized. **MD faculty represent a unique category of university appointees.** While they are entitled to many of the same rights as “typical” university faculty (academic freedom, career development opportunities, role in college governance, etc.) they have the ability to earn significant clinical income due to a combination of the pressure of clinical service obligations, market incentives and the exercise of personal choice. This ability should preclude most from an automatic entitlement to a full-time academic appointment and a corresponding full academic salary. At present, however, while many obtain a full academic salary, a lack of operational accountability metrics results in the University receiving only a part-time academic commitment. The resulting reality is that the University assists in backfilling clinical service. While clinical service is the *milieu* in which teaching and research occurs in a College of Medicine, current clinical service pressures and compensation structures distort the academic mission by misaligning priorities and incentives to strongly favour clinical practice over teaching and research. The current state of the College of Medicine is a direct result of a failure to recognize and correct this reality.

On a go-forward basis the **MD faculty** complement of the College of Medicine will be informed by the following principles:

1. Academic pay is for academic work
2. Academic freedom applies to academic work
3. Protected time commitment for academic work is determined by one’s career pathway
4. One’s career pathway determines one’s predominant source of income
5. The ability to gain tenure is an aspect of all career pathways
6. Tenure is independent of compensation
7. Retention of an academic position is contingent on continuing commitment to academic work

Many of the principles outlined above have long been recognized at other Canadian medical schools and in academic literature; they also reflect the reality of hiring at the majority of North American medical schools:

“Academic freedom and security of appointment are provided by tenure whereas income security is provided primarily through the linked clinical appointment.” (Tenure for clinical faculty at Queens. Report of a working party and recommendations from the faculty of medicine, 1999, p. 6)

“Tenure should be disassociated from the guarantee of permanent economic support.”
(Recommendations of sub-group on remuneration and tenure for MD faculty, McGill University Faculty of Medicine, 2010)

“Financial compensation should be based on individual contributions to scholarship.”
(Recommendations of sub-group on remuneration and tenure for MD faculty, McGill University Faculty of Medicine, 2010)

“The large majority of US and Canadian medical schools provide either limited or no financial guarantees for tenured clinical faculty. Hence, there is ample precedent for the concept of dissociating tenure from salary for rank for a medical schools clinical faculty.”
(Tenure for clinical faculty at Queens. Report of a working party and recommendations from the faculty of medicine, 1999, p. 6 citing Jones, R.F. and Sanderson, S.C., *Academic Med* 69: 772-778, 1994)

For those faculty (including MD faculty) whose predominant focus is academic work, the university must ensure both income and academic security. For those whose predominant focus is clinical work income security is derived from clinical work while academic security is derived from academic position.

In order to align the faculty complement with the new vision we must also jettison old thinking and old terminologies such as “university-based faculty” and “community-based faculty”. We must adopt a new and original all inclusive definition of “faculty” as a body of teachers, scholars and administrators in a college or university. The new definition of “faculty” encompasses the entire teaching and administrative workforce of the college distinguishable only by their career paths (see Table below). Furthermore, we must jettison the notion that initial career pathways are static and remain fixed throughout a faculty member’s career. The key to alignment is having a flexible faculty complement that responds to the ever-changing needs of a dynamic teaching and research environment and also reflects the clinical service realities of the province of Saskatchewan.

All faculty require clear career pathways with accountabilities to which they are held and responsibilities on which they must deliver. New college standards will be developed to achieve that outcome. Compensation will be commensurate with the chosen career pathway. A successful College of Medicine needs a blend of clinicians, educators and scientists. Different skill sets lend themselves to different career pathways and we have developed a faculty complement plan that allows everyone to contribute by playing to their strengths. We do not require a homogenous faculty; rather, we require a diverse faculty that works together to deliver the mandate of the college we need (*A New Vision for the College of Medicine*, 2012, pp. 5 – 6). As well, academic rank is an element of faculty status. The opportunity for advancement in all ranks would be made available to all faculty regardless of their career path.

Given the new vision and the principles outlined above, and recognizing best practices at our peer institutions, the following complement is required with demonstrable progress being made over the next four years:

Career Pathway	Qualifications	Literal Descriptor	Time on Task (Academic)	Time on Task (Clinical)	Predominant Source of Income	Current Complement	Desired Complement
Clinician Teacher	MD	Clinical faculty with a predominant commitment to clinical service	1 day/week (maximum)	4 days/week	Clinical	107	350 (minimum)
Clinician Educator	MD/MEd or EdD	Clinical faculty with a career path in medical education	4 days/week	1 day/week (maximum)	Academic	5	20
Clinician Scientist	MD/PhD	Clinical faculty with a career path in biomedical research	4 days/week	1 day/week (maximum)	Academic	4	15-20
Clinician Administrator	MD/maybe other (MBA)	Clinical faculty with a career path in academic administration	4 days/week	1 day/week (maximum)	Academic	24	25 (minimum)
Scientist (teacher/scholar)	PhD	Non-clinical faculty with a career path in research	5 days/week		Academic	78	60
Educator (teacher/scholar)	PhD	Non-clinical faculty with a career path in medical education	5 days/week		Academic	4	5
Administrator Scientist	PhD	Non-clinical faculty with a career path in academic administration	5 days/week		Academic	10	8

Table 1: Proposed Career Pathways and Faculty Complement

Clinician Teachers

As with most other medical schools in Canada, this pathway will make up the majority of the faculty complement in the College of Medicine. It is comprised of faculty who wish to devote the majority of their time to clinical practice, but who also wish to make an ongoing commitment to teaching. The table above recommends a minimum cohort of 350 clinician teachers who commit between 10 and 20% of their professional time to academic work (most likely or predominantly teaching). 350 represents a 300% increase in the membership of this cohort with the new membership being comprised of those current “community-based” faculty who have provided teaching for the college on a consistent basis. Currently, over 40% of our undergraduate teaching is delivered by these individuals and it is time to formally recognize their ongoing commitment. This new and all-inclusive definition of faculty and realigned career pathway will be the mechanism by which we deliver on our promise to professionalize our relationship with “community-based” faculty and eliminate the archaic and debilitating town/gown divide that has plagued the college for a generation (*A New Vision for the College of Medicine*, 2012, p. 5). Via this new designation, erstwhile “community-based” faculty will become fully-fledged MD faculty members. A significant proportion of these new faculty, and thus the cohort, will be based outside of Saskatoon and the Saskatoon Health Region and their addition to the faculty complement is further evidence of the increasingly province-wide scope of the college. The predominant source of income for this cohort will be derived from clinical sources reflecting the chosen priority of the individual to focus on clinical service delivery. In return for a written commitment of a minimum amount of academic service, compensation will be via the provision of a fixed stipend (supplemented by a regular and

predictable payment system for additional academic work) or by physician membership in an approved payment plan that makes provision for protected academic time. For those current “community-based” faculty who do not wish to change their status, and continue to provide instruction on a more casual basis, we will maintain opportunities to do so, but commit to improving payment mechanisms and other supports.

The recruitment of several hundred new clinician teachers is a major undertaking. Therefore, it is imperative that the college adopt innovative methods to recruit, engage, retain, and reward clinician teachers. Through the office of the vice-dean faculty engagement and the ongoing work of the faculty engagement working group, we will consult widely with physicians to identify those key strategies and methods that will ensure we recruit a high-quality and motivated clinician teacher cohort.

Building a new cohort of clinician teachers is essential to reinvigorating our undergraduate medical education program and ensuring the continued development of our residency training programs. The clinician teacher represents the foundation of our faculty complement.

Clinician Educator

This pathway is designed for professional medical educators (MDs with either a MEd or PhD in Education). These individuals will be responsible for conducting research on the pedagogy and effectiveness of medical education and publishing the results of their work. In addition, they will be actively involved in:

- enhancing student engagement
- designing curricula
- preparing course materials
- developing assessment tools
- delivering significant amounts of teaching
- being academic and educational leaders for the clinician teacher cohort

In order to succeed, they will be expected to devote at least 80% of their professional time to their role as professional medical educator. Given this commitment to academic work their income will be derived from academic sources either university-based or via membership in an approved payment plan that makes provision for such a significant commitment to academic work. It is anticipated that a cohort of 20 such educators will be sufficient to deliver on the vision. It is further anticipated that much of the membership of this cohort will be sourced from existing faculty ranks and the college is prepared to invest funds to retrain existing faculty to prepare them for these roles. Additional expertise in areas not covered by existing faculty will be recruited at the senior level.

Clinician Scientist

Clinician scientists represent the research leaders of the college. They are the foundation of the research enterprise and will be the leaders of translational, inter- and multi-disciplinary research teams and clusters. Clinician scientists will be the key drivers of the research mission of the college. They must generate significant research income, publish their research results in top journals and be able to attract HQP to build research capacity. Only by devoting the vast majority of their professional time to research will these goals be met. The existence of a small, but highly productive cohort of clinician scientists is a hallmark of successful research-intensive Canadian medical schools. Given the pivotal nature of these individuals, compensation levels are high and start-up costs are significant. In return for such significant investment, expectations are correspondingly high. If the college is to begin reversing current trends in

research productivity this pathway must begin to be populated quickly; predominantly through external recruitment initiatives.

Clinician Administrator

A key component of the new structure for the college is a highly functional senior administrative cohort. Both individually, and as members of the college executive, clinician administrators will be responsible for the efficient operation of the college. The clinician administrator pathway will be populated by individuals who wish to devote the majority of their professional time to academic administration and includes such roles as vice-deans, associate deans, department heads and program directors. The administrative leaders of the college will be tasked with ensuring the continued alignment of time and resources with the new vision. Consequently, a significant time commitment is warranted.

The three pathways discussed above represent the desired clinical cohort of the College of Medicine faculty complement. While each of these pathways will have clearly defined roles, accountabilities and career progression opportunities, an overarching imperative is that membership of these pathways is not static. The significantly altered environment discussed above eschews notions of permanent occupancy of one career pathway. The life-cycle of clinical faculty in the current environment, and likely into the future, will be characterized by changing foci at different career stages. For example, the possibility of a faculty member holding significant research funding for their entire career is increasingly unlikely. Therefore, clinician scientists who have reached the apex of their funding career must be able to transition into other career pathways. Conversely, individuals who demonstrate genuine research productivity in other pathways must have the ability to be considered for clinician scientist positions. Similar arguments can be made in relation to the other clinician pathways; individuals who show interest and demonstrable promise in education, research or administration should have the opportunity to move into a pathway that reflects their personal goals, priorities and skills. The ability to move between pathways maximizes institutional flexibility while simultaneously providing significant career incentives for motivated faculty. As well, if placement in initial career pathways is permanent, this will eventually create a misalignment within the faculty complement.

It should be noted that the move towards more flexible career trajectories is an emerging trend in American medical schools:

For the last 30 years, financial uncertainty, changes in health care delivery and reimbursement, and changing workforce needs have prompted medical schools to depart from faculty employment norms that were developed in a different era and to continually refine their appointment and tenure policies. [We] would expect to see continued growth of flexible policies such as probationary period extensions, track changes, and flexible career pathways. An institutional environment and culture that support the use of flexible policies are also important in encouraging a match between academic structure and faculty career needs.

(Bunton S.A., and Mallon, W. T., "The Continued Evolution of Faculty Appointment and Tenure Policies at U.S. Medical Schools," *Academic Med* 82: 281-289, 2007)

The other three career pathways of Scientist (currently populated by the Biomedical Scientists), Educator and Administrator Scientist will conform to the "teacher-scholar" model that currently exists at the University of Saskatchewan. However, it is proposed that faculty in the Scientist pathway that currently populate the five basic science departments will work in a significantly different administrative structure, as advocated by the Basic Sciences Working Group (see below for a fuller discussion of this proposal). These scientists are crucial to the future research success of the college, but we must be

more flexible in how we recruit them and how we place them in research teams and clusters. The move to a new administrative model will significantly improve flexibility in that regard. The new administrative unit will also have enhanced standards for tenure and promotion that will place a renewed emphasis on research participation and productivity. This cohort of faculty represents the foundation of the team-based science model that the College *MUST* adopt if it is to be competitive.

Key Transition Strategies:

Transition strategies to move towards the new faculty complement fall into three broad categories:

- **Redeploy** faculty to the new career pathways
- **Retrain** faculty to equip them for new and/or different pathways
- **Recruit** outstanding faculty into the new complement

In deploying these strategies, and any others that will re-align our faculty complement, we will always respect collectively bargained rights, entitlements and their legal representatives.

In addition, a new clinical pathway will be developed for those who wish to spend more than 1 day/week on academic work, but at present, are either not qualified or not sure they wish to pursue a clinician educator or clinician scientist pathway. The intent of this new pathway would be to allow faculty the opportunity to explore the potential of another pathway and allow the college to assess their suitability for placement in another pathway. In keeping with the need for flexibility, this pathway will not be a permanent career pathway for any faculty member. The development of new pathways, and the standards that accompany them, is part of the ongoing role of the college review committee (CRC) and they will be actively engaged in the development of new pathways.

An essential element of realigning our faculty complement is the development of a province-wide academic clinical funding plan (ACFP). A successful ACFP will improve accountability by clearly establishing academic and clinical deliverables and aligning compensation to reflect the commitment of the individual to their chosen pathway. An ACFP that supports increased accountability and assures better alignment of resources will be a significant driver of change. We are committed to working with our partners in government to develop a successful ACFP.

What will be achieved?

Teaching

The College of Medicine is currently on warning of probation and faces the real possibility of being the first medical school in Canada to be placed on probation twice. The accrediting bodies (LCME and CACMS) identified in Standard IS-9 structural issues of how clinical teaching is organized and assigned. They found that our existing model of clinical instruction, with regards to “university paid full-time faculty”, does not provide sufficient accountability to meet accreditation standards. They found no such issues with our “clinical faculty in the community”. Over the last eighteen months, we have identified several factors that contribute to this accountability problem; however, the end result is an apparent inability, for a myriad of reasons, on the part of university-based faculty to devote sufficient time to their assigned educational tasks. A conservative estimate indicates that the majority spend less than 20% of their time on undergraduate teaching and research despite holding a “full-time” time academic position. Over the last year a revitalized assignment of duties process has, for the first time, allowed the Undergraduate Program to have a fully filled commitment from faculty for the teaching sessions in the curriculum. This major step in answering the accrediting bodies concerns could not have been completed without a strong commitment from department heads and faculty, but much more needs to

be done. The steps outlined in this plan will allow this progress to be sustained and improved. In time both processes will correct the accountability issues identified by the accreditors.

This plan has proposed career pathways that reflect the realities of the practice of medicine in Saskatchewan, by combining the majority of our university-based clinical faculty with their counterparts in the community and across the province, into one cohort of clinician teachers whose primary focus is clinical service delivery. Clinician teachers would commit to providing up to a **maximum** of 20% of their time to academic work. The size of this new cohort, when combined with a reasonable time commitment, on the part of clinicians, will address our accreditation problems by ensuring sufficient resources to meet our curricular needs. While our current accreditation problems are focused on undergraduate medical education this plan will also assist in the delivery of post-graduate medical education as the creation of this unified cohort fulfills our commitment to “professionalize” our relationship with our community-based faculty thus ensuring a steady supply of committed teaching faculty across the province.

In addition, this plan recommends that the clinician educator complement be significantly increased and that those in this pathway devote the vast majority of their time to the study and delivery of our medical education program. These faculty will represent the educational leaders of our teaching mission and will be a significant resource for students and clinical teaching faculty and make sure our curriculum is vital, meets the educational standards of accrediting bodies, and keeps pace with innovations in medical education.

Research

The college is under-performing on its research mission and lags far behind its U15 peers. We must begin to address this issue by building a faculty complement that is better equipped to produce high-quality research. This plan recommends that the clinician scientist complement be significantly increased and that those in this pathway devote the vast majority of their time to the development of translational research and the building of research teams and clusters. External recruitment of established researchers must begin immediately to kick-start the reinvigoration of our research mission and begin to reverse current trends in research performance. In addition, this plan advocates the creation of a new flexible pathway where clinicians with research potential can be given an opportunity to develop a research program with a view to future placement in a more research-intensive pathway.

While this plan recommends radical changes to our MD faculty complement, and the principles that will inform their future hiring, they must be placed in the context of the Canadian and North American medical school experience. These changes will bring us much closer to the standard practices at our peer institutions.

Objective #2: Re-conceptualize Research

We have already identified a clear misalignment in the allocation of time and resources between the research mission of the college and the provision of clinical service. While research and clinical service are inextricably linked they must complement each other. In order to produce translational research that improves patient outcomes, the time and resources allocated between research and clinical service must reflect our role as an academic health sciences centre. The historical and current absence of an appropriate alignment has resulted in the following state of affairs:

- The college lags far behind its peer institutions in research funding success. The college ranks 16th out of 17 in Canada and needs to increase research funding by 600% to approach an acceptably comparable level of funding.
- This poor performance is not only of concern to the College of Medicine. Medical schools are the bedrock of medical-doctoral university research success in that they routinely generate upwards of 40% of total university research funding. At the University of Saskatchewan, the College of Medicine currently generates less than 10% of total university research funding. This places us last in the country on this metric and prevents the university from engaging in meaningful competition with our U15 peers against whom we are judged.
- Significant public investment in research infrastructure has led to legitimate expectations on the part of government and the public that the College of Medicine will produce significant research of value to local, national and international populations. Our current level of performance represents abject failure to meet those expectations.

Viewed in isolation our comparatively weak research performance would alone warrant a major intervention. However, when this performance is combined with the changing nature of the funding environment, the need for a radical reconceptualization of our entire approach to research is nothing short of an institutional imperative. Failure to address this aspect of the college's performance will have a long-term and highly detrimental impact on the survival of the College of Medicine and the future of the university as a research intensive institution.

Therefore, as a college, we **must**:

- Increase research intensiveness through the development of interdisciplinary research and the fostering of a team-based science approach
- Improve our research performance in comparison with our U15 peers
- Deliver improved health outcomes for the people of Saskatchewan, and beyond, by ensuring research findings are translated into enhanced health care outcomes

In order to meet these core research goals we must address, in the context of research, the three fundamental objectives outlined in this document, faculty, research and governance.

Faculty: To kick-start the research mission, the recruitment of established high quality and highly productive clinician scientists and biomedical scientists is an immediate priority. These individuals will form the research nucleus of the college and lead large research teams and clusters. In the long term, we will continue with strategic external recruitment, but we must nurture research talent from within. The introduction of a new flexible career pathway that provides an opportunity for individuals with a genuine commitment to academic research to develop a research program will help populate these teams and clusters from within.

Research: Radically redesigning the research infrastructure of the college including provision of enhanced levels of support to successful researchers to recruit HQP and to build sustainable research teams and clusters. In addition, we will provide bridge funding to support research between grants as the temporary loss of grant funding is likely a reality for most researchers in the new funding environment. Furthermore, we must develop a more diverse range of research funding sources that help create and sustain a critical mass of research activity within the college. While CIHR and tri-agency funding remain our top priority, the new funding environment necessitates a significant effort to diversify and enhance total levels of funding support. Finally, we will develop a coherent and focused research strategy that capitalizes on the unique research opportunities presented by our geographic and

demographic characteristics. This process is well underway via the development of *Toward 2020: Clarity – Vision – Application* spearheaded by the interim vice-dean research. This strategy will dictate future investments in research by providing much needed focus and direction to the research mission of the college. We will not attain our goals without a radical change in the research architecture of the college.

Governance: Redesigning the governance of research including the establishment of the office of the vice-dean research to act as the focal point for research within the college. The vice-dean research will have significant decision-making and budgetary authority and be tasked with moving the college's research mission forward. The interim vice-dean research was appointed March 1, 2013 and is actively engaged in designing the permanent office of the vice-dean. In addition, the college will submit a proposal to university council to restructure the biomedical science departments to provide a more flexible administrative structure, more adapted to the needs of a team-based science approach to research. Finally, the college will reach out to its partners in the health regions to develop closer relationships with regards to clinical research.

The above strategies will begin to address our research challenges at the broader college level. They represent the key first steps to addressing research performance. However, addressing this challenge requires a multi-faceted approach and we must also:

- set expectations for research intensity and use metrics in all aspects of evaluating progress, both for the college and individuals
- monitor and reward excellence in research, particularly work that is published in well regarded journals
- encourage development of team-based science environment and reward results based on contributions not just on individual primary investigator successes
- explicitly create a culture which values research grant activity and that values research equally with teaching and clinical service
- emphasize the transition of research into clinical practice in order to deliver improved health outcomes
- ensure research opportunities at all stages of medical education and at all sites
- focus on research issues with global impact and that are also provincially important

Key Goals

In cultural terms, the key goal is to make team-based science the foundational approach to research with the college. This will prepare the college for the challenges of the new research funding environment.

In terms of metrics, the short-term goals of this new approach to research are that over a four-year period we will double external funding, double the number of peer reviewed publications and double the impact of publications (as measured by increase in citations and 4-year h-factor). Additional factors for benchmarking will be significant increases in co-authored publications and grants, the percentage of internationally co-authored publications, and percentage of international citations relative to total citations.

The long-term goal is for the college to produce high quality translational research at levels that allow us to compete favourably with our peers and help position the university as a productive and competitive medical-doctoral institution and member of the U15. If we are successful, we will deliver on our mandate to improve patient outcomes via the generation of new knowledge.

What will be achieved?

The changes recommended in this plan will bring a much needed focus to our research mission. These changes will also ensure that we capitalize on the unique opportunities that the college has to produce significant research on matters of pressing concern to local, national and international populations. We must build a strong foundation for the next generation of researchers; a foundation that embraces team-based science and the need for clinicians and scientists to work together to produce research that improves the educational experience of our students and the health outcomes for our patients. We can begin to build this foundation by hiring a new cohort of research leaders and significantly enhancing the support we provide to those faculty who wish to devote their time to research.

Objective #3: Re-structure College Governance and Partnerships

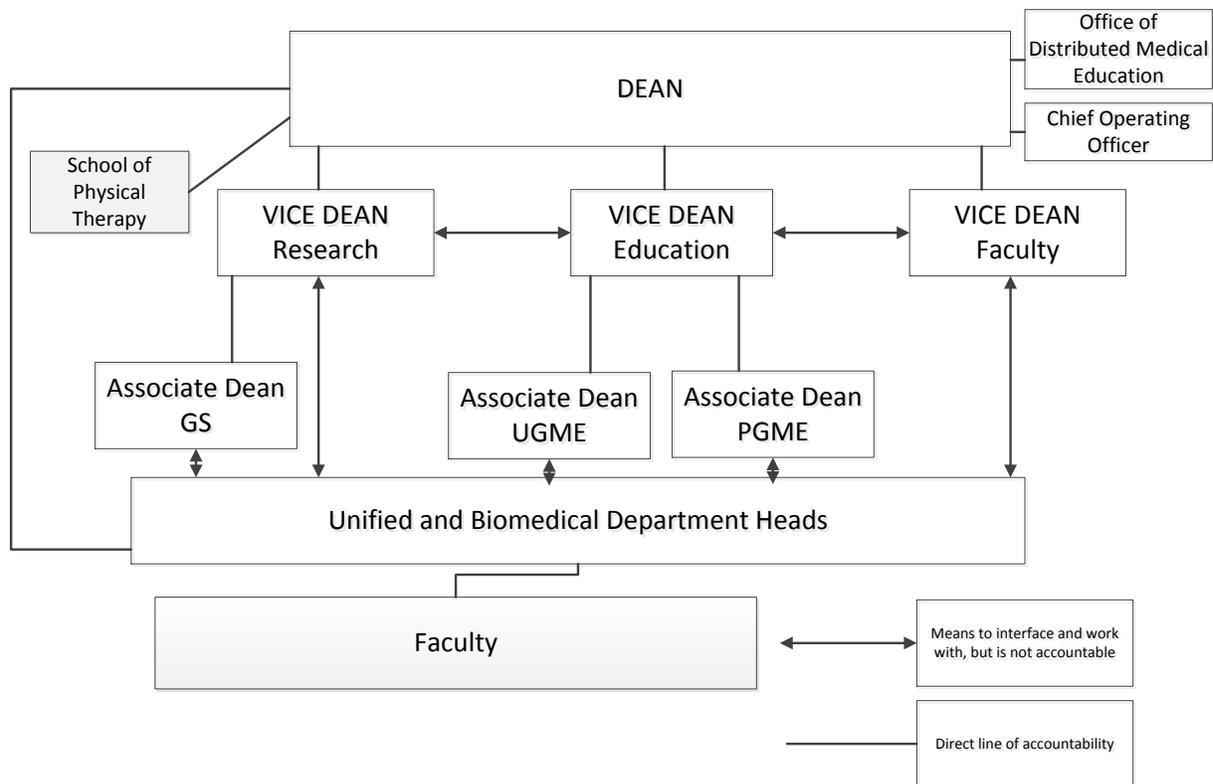
A New Vision for the College of Medicine articulated the challenging and dynamic environment in which the college now operates. This document has described the need for our faculty complement and our research mission to be much more flexible and responsive to the demands of the new realities of medical education and translational team-based research. Our governance structures and partnerships must display similar attributes.

One consequence of this new environment is that medical school deans play an increasingly external role liaising with other health related disciplines on campus, health regions, governments, funding agencies, donors, etc. The current College of Medicine governance structure as described in *A New Vision for the College of Medicine* (p. 7) was designed for a different era and supports the structural misalignment described earlier. Since July 1, 2012 the college has been overseen by a revitalized executive comprised of the acting dean, vice dean and associate deans. Given the increasing demands placed on the dean and the realities of the current environment, this plan recommends the formal adoption of an executive model of governance for the college. An institution as dynamic and complex as the College of Medicine cannot be run effectively by one individual to whom everyone reports and who is responsible for everything from setting the strategic directions of the college to approving minor purchasing decisions.

The current College of Medicine governance structure also lacks explicit mechanisms to deal with the myriad issues that distributed medical education (DME) raises. Of particular concern is the lack of a “champion” within the governance structure which has clear responsibility for ensuring the success of DME and is available to the broad range of stakeholders (health regions, clinician teachers, etc.) who represent the DME community across the province.

The governance model described in this plan addresses the key challenges of leadership of the college, integration of distributed medical education into the fabric of the college and gives more explicit recognition to our key partnerships.

The following organizational chart depicts the new governance model for the College of Medicine and is comprised of an executive and a senior leadership forum:



The executive will be comprised of associate deans and above while the senior leadership forum incorporates the unified department heads and biomedical science heads. In addition, a key facet of any new governance structure must be the provision of opportunities for both Undergraduate and Post-Graduate students to participate fully in the governance of the college. Discussions with both groups will commence in the fall to ensure their active and on-going participation in college decision making.

Key features of the new governance model include:

- Creation of three vice dean positions
- Commitment to the unified headship model
- Identification of a focal point for DME and other distributed academic activities (research) and the creation of a dedicated office within the new governance structure to fulfill that role effectively.
- Reconfiguration of Biomedical Sciences faculty into one or two departments

Vice-Deans

A New Vision for the College of Medicine recommended the creation of three vice dean positions which are a common feature of medical school governance in Canada. The issues covered by the three new portfolios, namely education, research and faculty engagement, are all central to the success of the college. The vice deans exercise authority over budget, faculty and staff, and collegial processes. What is intended is to create accountability through better assignment of duties, closer oversight of the academic missions, and the collegial processes that support those missions.

As of June 1, 2013 three interim vice deans have been appointed:

- Dr. Colum Smith – interim vice dean research
- Dr. Femi Olatunbosun – interim vice dean faculty engagement
- Dr. Gill White – interim vice dean education

Part of the mandate of the interim vice deans is to develop position profiles and organizational structures that will enable the permanent vice deans to fulfill their mandate. This work is ongoing.

Unified Heads

The department and the department head remain key figures in the governance structure. The college is committed to the unified clinical headship model recommended in the Noseworthy Report (1998). The model was introduced in 2003 and gives the head responsibility for both the academic program provincially and for clinical service in one health region. As such, the unified head represents one of the most significant leadership positions in the new college structure and within our key partner institutions.

The CoM restructuring facilitated an examination of the Unified Head positions. As discussed below, the working group findings clearly indicate that we are committed to the retention of these positions. However, we also believe that the examination of these positions has provided a timely opportunity to review their efficacy and a significant opportunity to highlight the pivotal nature of these positions. As we go forward, the Unified Head positions must be strengthened and supported as they are key figures in ensuring:

- Effective alignment of Health Region and CoM priorities
- Accountability of faculty including those who are members of the ACFP
- Greater communication between key partners
- Effective alignment of the “academic” and the “clinical”
- Province-wide leadership in academic and clinical matters
- The effective distribution of quality medical education across the Province

A New Vision for the College of Medicine formally stated our commitment to these positions. Given their centrality to the functioning of the college, a working group was established to examine the role of the unified head and the nature of this position. The working group looked at previous studies relating to the unified headships including the PostI Report and the Noseworthy Report. The group also felt it important to obtain the perspectives of current and former unified heads and of the CEO of the Saskatoon Health Region where all unified heads have been based thus far. These consultations were crucial in developing a new job profile for unified heads (which was also shared with the CEOs of all the health regions). The profile represents a comprehensive description of the multi-faceted nature of the position and raised a number of issues that must be addressed including:

- Full-time nature of the position – a recognition that the position requires at least 75% protected time
- Support
 - In large departments there may well be a need for a deputy positions to assist unified head in dealing with day-to-day operational issues
 - For those who wish to maintain some active research, additional financial and logistical support may be required
 - In order to increase available talent pool, mechanisms need to be developed to ensure clinical and research rehabilitation at the end of an individual’s headship
- Commitment to provincial role – all incumbents must embrace the province-wide nature of the role and be held accountable for same

- Commitment to DME – a key component of the provincial role is a clear commitment of time, effort and resources to distributed medical education

Distributed Medical Education

A New Vision for the College of Medicine explicitly recognized DME as a governance challenge (p. 11) and promised the establishment of a working group to address this issue. While the work of the group is ongoing, a consensus quickly emerged regarding the need for a “champion” for DME to be a part of the governance structure of the college. The working group discussed three alternative models, none of which were able to elicit consensus at the DAC. It became apparent during discussions over this position that one individual could not assume operational and strategic responsibility for an endeavor as complex as DME. Furthermore, it became clear that to become a truly province-wide medical school more than UGME and PGME need to be distributed. If high-quality academic programming is to take root at all sites, research must also be a part of academic activities at all distributed sites. These insights led to a rethinking of the notion of a “champion” for DME. Initially it was thought that only faculty and staff at distributed sites needed a “champion”, it is now clear that many actors at the main Saskatoon site also need a “champion” for distributed academic activity. In other words, if the distribution of our academic programming and research mission is to be uniformly successful across the province there needs to be a dedicated resource centre within the college governance structure that is accessible to all. Therefore, this plan recommends the establishment of an office of distributed medical education which will act as the focal point for all distributed academic activity within the college. This office will serve as the one-stop shop for faculty and staff at all sites but will also have a larger strategic role including strengthening relationships with our partners in inter-professional education. In order to fulfill this role, this office must carry a high degree of authority and therefore have a senior academic leader who has a direct reporting relationship to the dean. This individual must work closely with the vice-deans, associate deans and unified heads. Key to this proposal is an acknowledgement that the successful distribution of academic activity (which will lead to a maturation of all distributed sites) is the responsibility of many actors within the college, notably vice-deans, associate deans and in particular, unified heads who have a clear province-wide role. In addition, larger distributed sites will require senior academic leaders who will report to the vice-dean education. The office of distributed medical education will act as a key support to these many actors in fulfilling their role in relation to distributed medical academic activity. The establishment of this office, with a direct reporting relationship to the dean, is a clear statement to our partners that we are committed at the highest levels to the distribution of the college’s academic mission across the province.

Biomedical Sciences

One of the major governance changes that this plan recommends is the dis-establishment of the five basic science departments and their amalgamation into one or two departments. This recommendation is one of several considered by the biomedical sciences working group. While several models were discussed it is clear that the *status quo* is not serving the current needs of the college and will inevitably fail to meet future needs. The group made several recommendations in relation to structure and programming, all of which will have to be approved through established college and university academic governance procedures. However, any governance model for the basic science departments must address the key objectives of this plan: faculty, research and governance.

The Biomedical Sciences Working Group noted:

The desire of the College of Medicine is to foster an environment in which: 1) scientists may easily interact with clinicians in a vertically integrated framework; and, 2) in which scientists

from different disciplinary backgrounds may move freely among research groups to collaborate on projects which will benefit from a more trans-disciplinary approach to inquiry and problem solving. Similarly, we anticipate some fluidity in movement among areas as faculty progress through their careers. Maintaining existing administrative organization in the light of such changes is untenable.

Ultimately, the biomedical sciences working group recommended the creation of a single academic unit. The DAC preferred the creation of two new departments given that this proposal would likely have the support of the faculty within the biomedical science departments. Regardless of administrative structure, it is critical that the working group recommendation of a single biomedical science undergraduate program, based in the College of Medicine, be implemented in a timely fashion. This recommendation is key as we must avoid competition between the departments and ensure that flexibility in hiring is not compromised by calls for additional disciplinary specific teaching faculty.

If the College is to meet the research demands of the new environment and to take its place as a strong and productive member of the U15 we must integrate our biomedical faculty into a team based science model. Successful integration requires a high degree of flexibility in hiring. As stated above, our governance structures must align with and support our goals in relation to faculty complement and research thus necessitating the adoption of a more flexible model. The one or two department model will result in the basic science faculty having no dedicated voice at the college executive and their interests will be represented by the vice-deans. The department heads will have voice at the senior leadership forum.

The challenge for biomedical science faculty is to reinvigorate their undergraduate programming in the context of the new admission standards to the College of Medicine and to reconfigure their graduate programming. Furthermore, they must significantly improve their research productivity and actively participate in interdisciplinary research teams and clusters.

Partnerships

A successful restructuring of the college is predicated on strong, clear and effective relationships with our key partners in the health regions and provincial government. Given the changing environment in which the college operates and the challenges faced by our partners in meeting the current and future healthcare needs of the people of the province it is essential to strengthen and revise these relationships and ensure that they are mutually supportive, beneficial and appropriately aligned. Our partnerships are essential to the success of the college.

The college restructuring presents an opportunity to examine these partnerships with a view to enhancing and enriching them. This will involve the creation of a permanent advisory body to the dean (based on the success of the DAC) and a thorough examination of any agreements that address the key interactions between the college and its primary partners. The process by which these agreements are reviewed and revised will provide a strategic opportunity for broad ranging and frank discussions on the nature of these partnerships including their financial and administrative impacts. The Saskatchewan Academic Health Sciences Network can also provide a forum for discussions of this nature. If the goal of this restructuring is to develop an optimal alignment of resources, the only way this can be achieved in such a complex environment is to have structured discussions leading to concrete written outcomes with these partners.

Beyond these essential primary partnerships the partnerships working group identified over 50 groups and organizations that could be classified as desirable, essential or high level partners. In the short term it is imperative that the college engage with its primary partners as discussed above. In the longer term, the college should adopt a similar engagement process with the broader range of partners identified by the working group.

One of the key successes in the restructuring process was the establishment of the dean's advisory committee (DAC). The DAC membership reflects a highly representative group of stakeholders whose role was not to advocate formally for their stakeholder, but who were to provide advice and perspective to the dean as the restructuring unfolded. This plan recommends the creation of a similar forum of stakeholders that will act as a permanent resource for the dean of the College of Medicine. This plan explicitly recognizes the fact that we are now a truly province-wide College of Medicine. This acknowledgement means we need to rethink the nature of our partnerships and engage our partners in a more systematic and thorough way. We must establish a formal mechanism for ensuring regular, timely and frank conversation between the dean and our provincial partners. This plan therefore recommends the establishment of a permanent, representative dean's advisory committee.

Key Goals:

1. Proceed with search for permanent vice-deans
2. Refinement of unified head model and its implementation
3. Creation of a new DME office within the governance structure
4. Adoption of new governance structure and academic teaching program for the amalgamated biomedical sciences
5. Establishment of a permanent advisory body to the dean
6. Finalize a financial management system to support the new governance structures and the introduction of the TABBS model for financial accountability and planning

What will be achieved?

The changes recommended in this plan will significantly increase and enhance accountability mechanisms and improve the efficiency of the senior leadership of the college by diffusing responsibility for key components of the mission to vice-deans with genuine authority and budgetary responsibility. It will also bring our administrative structures into alignment with the new vision. It will strengthen our partnerships and more accurately reflect our province-wide role by enhancing the governance structures surrounding distributed medical education.

The changes recommended to the biomedical science departments will significantly increase flexibility in hiring practices and the delivery of their academic programming. Maximizing flexibility is imperative as we strive to build a strong research foundation for our future as a competitive research institution focused on team-based, translational research.

Conclusion

The College of Medicine has failed to keep pace with the changing landscape of medical education and research. A successful College of Medicine in the 21st century is asked to perform a significantly different set of tasks than one opened in the mid-20th century. This inability to keep pace has resulted in the college facing a crisis in the core aspects of its mission. A fundamental re-alignment of the time and resources dedicated to teaching, research and clinical service is necessary. This plan represents the beginning of a process to change our structures and realign our resources. It also represents the

minimum necessary to catch up to our peers. However, catching up or even keeping pace are not acceptable long-term goals. We have the resources, infrastructure and opportunities to lead in many aspects of medical education and research. If we realize these opportunities, we will fulfill our potential and meet the expectations of the university community and the province. Discussions over the restructuring of the College of Medicine began eighteen months ago. In the interim, we have engaged in wide consultation both within the college and with our partners and key stakeholders. This plan represents the culmination of this consultation process. It is one step on the long road to a revitalized College of Medicine. Now is the time for action.