March 16, 2015

TO: Geneviève Moineau  
President and Chief Executive Officer, AFMC  
265, rue Carling Avenue, Suite/pièce 800, Ottawa, ON  K1S 2E1

RE: FMEC accomplishments at University of Calgary

Dear Geneviève,

In May 30, 2014, a report was produced from our “Working Group on the Implementation of the Future of Medical Education of Canada MD Initiative at the University of Calgary”. This report was previously sent to CACMS. While many of the advances listed below were driven by this working group, other groups within the faculty have led to some accomplishments relating to the FMEC recommendations. Below is a summary of these accomplishments.

1. Address individual and community needs

   - Implementation of the Brownell Family Medicine Task Force, which included creation of an early clinical experience in Family Medicine. Our first round match to Family Medicine, targeted at 40%, was 48% last year, and 38% this year
   - The Cumming School of Medicine (CSM) has taken a number of steps, philosophically, to adhere to FMEC’s vision:
     - The appointment of Dr. Jennifer Hatfield as Associate Dean (and Dr. Gwen Hollaar as Assistant Dean) International/Global Health. Dr. Hatfield, as of 2015, will be taking an expanded role as Associate Dean, Strategic Partnerships and Community Engagement
       o This will likely result in an Assistant Dean position, aboriginal health (as was suggested by the working group)
   - In 2014, approval of an updated “goals, objectives and philosophy” document with the following revisions:
     o The addition of the following goal: “Provide an environment that fosters collegiality, ethical practice and professionalism among students, faculty and allied health professionals to produce future physicians capable of working cooperatively within a team of health care providers, able to provide comprehensive, socially competent health care to our socio-culturally diverse population with a goal of social accountability to all global citizens”
     o The revision of the following outcome objective: “Apply a comprehensive patient-centered approach in the evaluation and care of patients including sensitivity to differing: sexual orientation and gender identity, cultural and spiritual beliefs, attitudes and behaviours, economic situations”
In 2014, revisions to the CSM strategic plan, which includes a number of statements related to this area, such as: “The CSM has already committed to several of these themes, including social responsibility, educating in diverse settings and generalism. We will continue our commitment to FMEC priorities and will expand opportunities for our undergraduate medical students. We commit to enhancing our focus of graduating physicians with a social/global conscience.”

2. Enhance admissions process

   a. The highlight is the creation of an admissions pipeline that will target potential students from rural areas, low socio-economic status, and aboriginal descent
   b. As well, our admissions process has seen funding allocated to a “second look day”, where interested aboriginal students will be given the opportunity (travel funded) to return to our school to further explore their interest in our program

3. Build on the scientific basis of medicine

   a. There has been increased attention paid (by way of meetings between Senior Associate Dean Education, Associate Dean UME, basic science department heads) to the integration of basic science teachers (alone or as team teachers) in our pre-clerkship
   b. Our school curriculum has introduced a “back to basic science” course in the clerkship, and will soon (2016) be introduction an “Introduction to Basic Science” course in the first month of our school program

4. Promote Prevention and Public Health

   a. The CSM strategic plan now includes the following statement: “We will develop scholarly tracks for medical students with an interest in business, policy and public health.” This will be accomplished by an enhanced “Leaders in Medicine” program, including current ongoing meetings with leaders in our Haskayne School of Business (combined MD-MBA)
   a. Several newer curricular initiatives have placed emphasis on Population health:
      a. The Population Health Community Correlations project, interviewing members of the community (students in pairs visit members of community in one of six areas: disability, immigrant/refugee, aboriginal health, families of children with disabilities, homelessness and addiction, elderly)
      b. As of 2016, a curricular plan is in place that will see a greater emphasis on Population health (reflecting a heightened attention to this area in our philosophy) in the first month on medical school

5. Address the hidden curriculum

   a. At our school, the hidden curriculum often lies in the student shadowing experience, which has been explored in detail recently by many discussions with our student body, creating a shadowing policy, polling our PGME program directors regarding their view
on the importance of this activity (which is minimal) and creating a database of potential preceptors for shadowing experiences

6. Diversify learning contexts

   a. Our faculty has created and supported a number of recent initiatives in this area:
      i. Faculty-led initiatives
         1. Global Health concentration: (8 students)
            a. The vision of the Global Health concentration is: “to increase student exposure to specific underserved populations locally, nationally, and internationally in hopes that students will (engage a broader context of health) return to these settings when they are finished their training”
         2. Students who are not chosen for the Global health concentration stream but have a keen interest can also participate in the journal clubs (open to entire class). Many other students also take part in international electives or electives in more remote Canadian locations. In 2012-13, 26 students did electives in remote Canadian locations (e.g. Iqualuit, Repulse Bay, Yellowknife) and 48 students (54 electives) participated in international electives
         3. Calgary inner city clinician coalition: 4 physicians in our city (including Dr. Janette Hurley, faculty-lead for student-run clinic), who are involved in direct clinical care, quality improvement (better linkages), and research projects plans for underserved patient populations. Students collaborate in research projects and patient care via this group
         4. Calgary Healthcare Improvement Network, or CHIN: QI projects involving students, which include projects for underserved populations
         5. The Global Health Project, completed as part of the Global Health course in first year (in groups of up to three, students complete a project in the area of global health. This project can relate to an elective, a research proposal, or other topic in global health)
      ii. Student-led initiatives:
         1. SHINE:
            a. Students for Health Innovation and Education is a project started 2 years ago by a small group of students, which has now grown to 9 executive members. The SHINE initiative offers
longitudinal, project-based experiences in the community:
namely at the Calgary Remand center and the YMCA

2. Student-run clinic
   a. This wonderful experience aims to provide accessible, quality
healthcare for underserved Calgarians. The program takes
approximately thirty students per year who participate in 3
clinics: Inn from the Cold, Refugee clinic, Alex Bus

7. Value Generalism
   a. The strategic plan and the Brownell task force (mentioned under 1.) highlight the value
placed on generalism
   b. In addition, a recent curricular task force, called “Less is More”, has taken a group of
students, course leaders, and generalists and reviewed every single slide of every single
pre-clerkship lecture to specifically address the question: “Is this material appropriate for
the teaching of an undifferentiated medical student”. This process has been largely
student-driven, very productive, and extremely informative
   c. A previous similar exercise had been undertaken for small group teaching by our group
of “Master Teachers”, comprised of over 30 faculty members, of various backgrounds
(largely generalists), who teach longitudinally in our pre-clerkship curriculum

8. Advance inter and intraprofessional practice
   a. We have recently (2014) appointed Dr. Ian Wishart, an Emergency physician by training,
as Director of IPE at our school. This has led to a number of very productive meetings
with the faculties of Nursing and Social Work at the University of Calgary. In addition to
enhancing what we were previously doing for IPE, this group has organized two activities
to begin in May 2015:
      i. A pilot in our Endocrinology course where nursing students and social work
students will accompany medical students on a home visit to an endocrine patient
and discuss team management of the patient
      ii. A trauma simulation as part of Introduction to Clinical Practice where we will
have medical students in second year, nursing students, respiratory students and
social work students running a trauma with facilitation by staff from respective
disciplines

9. Adopt a competency-based and flexible approach
   a. Our UME curriculum committee has worked diligently to revise our UME “goals,
objectives and philosophy” document (approved by our Faculty Council March 2015).
This document now provides objectives that are:
      i. outcome-based
      ii. linked to CANMEDS competencies
      iii. linked to milestones for entering clerkship and entering residency
10. Foster Leadership

    a. Last year Dr. Grondin (residency director for thoracic surgery) worked with our student leaders to provide medical students with a four-part leadership seminar series. This series covered critical topics such as: conflict resolution, self-assessment and reflection, and leadership style. This seminar series takes high level concepts from week-long programs and condenses it down into 4 seminars, each 1-1.5 hours long. Students who attended 3 or 4 of the sessions received a certificate of participation that could be included in a student CaRMS application.

I would be happy to answer any questions relating to these accomplishments.

Sincerely,


Sylvain Coderre, MD, FRCPC, MSc
Associate Dean, Undergraduate Medical Education

SC/sc
Report of the

Working Group on the Implementation of the Future of Medical Education of Canada MD Initiative at the University of Calgary

May 30, 2014
BACKGROUND

In 2009, the Association of Faculties of Medicine of Canada (AFMC) released the report of its Future of Medical Education in Canada initiative (FMEC-MD).\(^1\) This project was designed to develop a collective vision for how MD training should evolve so that future physicians will be better enabled to meet the needs of Canadians while at the same time working effectively in an evolving health care system. The report identified ten key recommendations, along with five “enabling” recommendations that support the ability of schools to reach the vision described in the report. The core ten recommendations covered a wide variety of issues related to the context of learning, the manner of teaching and the competencies that future physicians will be expected to demonstrated.

In 2011, the University of Calgary Undergraduate Medical Education (UME) program underwent Interim Accreditation. Led by Dr. Pamela Veale (Assistant Dean for UME), this review occurred between the school’s formal accreditations conducted jointly by the Liaison Committee on Medical Education (LCME) and the Committee on Accreditation of Canadian Medical Schools (CACMS). This interim accreditation found that the school’s Goals and Objectives, while identifying competencies, should be restructured into a clearer competency framework.

Subsequently, UMEC (Undergraduate Medical Education Committee - the governing curriculum committee of the UME program) decided to renew the Goals and Objectives within a customized CanMEDS framework.\(^2\)

This Working Group (WG) was formed with a mandate to explore the development of a customized CanMEDS framework which would guide curriculum organization and development in the UME program. It was also given a mandate to explore the recommendations of the FMEC-MD initiative and propose options to ensure that the UME program was aligned with them.

Preliminary work conducted prior to the formation of this working group included extensive discussions with the Associate Dean of UME, Dr. Bruce Wright. Additionally, a new medical student survey was launched in 2013 to get pre-clerkship student feedback on the overall structure, content and delivery of the UME program. This project was led by Ms. Lana Fehr, a second-year medical student who worked as a secondary school teacher prior to commencing medical training.

The working group commenced meetings in February 2014. The members were as follows.

David Keegan (chair) – Deputy Head and Undergraduate Director, Family Medicine
Heather Baxter – Director, Master Teacher Program; Family Medicine
Kevin Busche – Assistant Dean UME (Preclerkship); Neurology
Pamela Veale – Assistant Dean UME (Clerkship); Paediatrics
Wayne Rosen – Chair, Medical Skills Course; General Surgery

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COMMITTEE PROCESS

In late 2013 a call was made for applications for the position of Associate Dean, UME, to succeed Dr. Bruce Wright. Accordingly, the working group revised its purpose (in consultation with Dr. Wright) to the exploration of how well the UC MD program was already meeting the FMEC recommendations, and the development of options for how it might meet those areas which were not yet meeting the FMEC-MD vision. This revision was made so that this report would not constrain a new Associate Dean in ways which might interfere or conflict with his/her educational vision mandate (for which he/she would have received a mandate for implementation through being selected as the next Associate Dean).

The WG reviewed the findings of the pre-clerkship survey and, together with their own high level of knowledge of the MD curriculum, explored how the MD program was meeting the FMEC-MD vision, recommendation by recommendation.

ORIENTATION TO THIS DOCUMENT

Each recommendation will be identified, and the major explanatory text from the FMEC-MD document will be reproduced. Under each of the recommendations, a summary of the WG’s conclusions as to how and how well the UC MD curriculum is already meeting the vision proposed will be found. After this summary will be some for moving towards full alignment with each FMEC-MD recommendation. Evaluation of all aspects of our curriculum is important; any of the proposed curricular or other options should be subjected to evaluation to ensure that the interventions lead to the desired outcomes.

Appendix A contains the recommended local CanMEDS framework for UME Competencies.

Appendix B contains the existing Educational Objectives, as approved by UMEC on June 4, 2010.
Recommendation I: Address Individual and Community Needs

“Social responsibility and accountability are core values underpinning the roles of Canadian physicians and Faculties of Medicine. This commitment means that, both individually and collectively, physicians and faculties must respond to the diverse needs of individuals and communities throughout Canada, as well as meet international responsibilities to the global community.”

WORKING GROUP ASSESSMENT

The WG felt that the Faculty of Medicine and the MD program were partially or completely meeting elements of this recommendation. It found that:

a. The guiding philosophy of the UME curriculum is Clinical Presentations, which anchors medical student learning to patients' illness experiences.

b. The social accountability of the medical school to serve the needs of Albertans was already a strong element of our culture.

c. The curriculum has a large patient-centred focus, and has curricular elements that deeply explore the role of individuals' contexts on their health and wellness. Some examples are as follows.

   a. Features of patient-context throughout cases for small group learning, in particular those that include elements of medicine in patients from specific populations
   b. Community correlations projects in Population Health and other courses
   c. Clinical correlations within the numbered courses
   d. The Family Medicine Clinical Experience courses
   e. Patient presentations during large group sessions in which patients tell their stories
   f. Patient experiences during the clerkship period
   g. The Family Medicine Clerkship Patient-Centred Project

d. The curriculum includes the Global Health course section and Population Health course which together specifically address populations who experience more challenges to their health, safety and opportunities for growth than the Canadian norm. An optional Global Health Concentration is available for students who wish to explore this field in depth over their UME program.

e. Workforce social accountability has been embraced by the Faculty, as demonstrated by the 2009 Brownell Task Force on Family Medicine as a Career choice and the ongoing implementation of its recommendations. Chief among these recommendations is the accepted goal that the Faculty should facilitate a host of initiatives such that 50% of our graduating classes will choose family medicine as their first choice of career so as to meet the health workforce needs of Albertans. UME's career counselling programs provide health workforce perspectives for medical students. The Faculty does not have similar initiatives for the Royal College certified specialties and subspecialties. UME and the Office of Admissions, Student and Alumni Affairs (OASAA) include workforce issues for Royal College certified specialties within career counselling sessions.
f. The Faculty supports a number of projects which aim to support the local leadership and
development of health programs and health education in developing countries.

g. The MD Program has support for Aboriginal students and Aboriginal health learning, with an
Associate Professor in family medicine with this as his chief area of research and scholarship.
These initiatives are supported by an administrative coordinator.

OPTIONS FOR FUTURE DEVELOPMENT

a. The ongoing implementation of the Brownell Task Force recommendations is of continued
importance. The WG discussed whether the Faculty should pursue similar strategies for the Royal
College certified specialties and subspecialties. It concluded that any work related to these fields
should remain within the career counselling program run by the OASAA. The WG felt that current
and project workforce statistics be provided to students so that they are fully aware of the
prospects of finding professional work at the conclusion of their postgraduate medical training.
The WG felt that more elaborated programs (such as those for family medicine) were not
required at this point in time.

b. The WG was concerned about the stability and sustainability of the current Aboriginal health
program, in that it was essentially dependent upon one person, Dr. Lindsay Crowshoe. The WG
had only great respect for the work he is doing, and was instead concerned that the program
would be at great risk if Dr. Crowshoe were unavailable to run the program at any point in the
future. The WG felt it would be appropriate to explore the recruitment of at least one additional
faculty member with a major focus in Aboriginal Health. Such a recruitment would not only
enhance the stability of the program, but would also provide a direct content colleague for Dr.
Crowshoe.
**Recommendation II: Enhance Admissions Processes**

“Given the broad range of attitudes, values, and skills required of physicians, Faculties of Medicine must enhance admissions processes to include the assessment of key values and personal characteristics of future physicians—such as communication, interpersonal and collaborative skills, and a range of professional interests—as well as cognitive abilities. In addition, in order to achieve the desired diversity in our physician workforce, Faculties of Medicine must recruit, select, and support a representative mix of medical students.”

**WORKING GROUP ASSESSMENT**

The WG felt that the MD program was largely meeting this recommendation.

1. The WG noted the work led by Dr. Ian Walker to translate the assessment of an applicant’s ability to be successful in demonstrating CanMEDS competencies through their past demonstrated evidence in each applicant’s own context and opportunities. Additionally, with the introduction of the Multiple Medical Interview (MMI) for admissions, the WG felt the MD program was using evidence and best practice to conduct its assessment of applicants for MD training.

2. The WG recognized the current Aboriginal Outreach Program as helping to recruit applicants for the MD program from aboriginal backgrounds. Additionally, the WG felt that the Admissions program had demonstrated success in refining the admissions process to reduce barriers for Aboriginal applicants.

3. The WG felt that there is a broad range of societal groups within our medical student cohort, and that the admissions process restructuring appears to have removed potential barriers to admission for student of limited opportunities.

4. The external members of our Interim Accreditation team flagged the growing debt-at-graduation as a problem for our students and our school and recommended some action be taken to curb debt accumulation by medical students. The CMA’s subsidiary, MD Management, provides some financial counselling sessions for students.

5. Distributed Learning and Rural Initiatives (DLRI) facilitates requests from rural high schools to put on medical career awareness events, typically relying upon medical students who are training in those communities at the time. There is no comprehensive pro-active program to recruit applicants from rural areas.

**OPTIONS FOR FUTURE DEVELOPMENT**

a. The WG felt the current CanMEDS Applicant Assessment process be supported and strengthened where necessary.
b. The WG felt that DLRI should be given the support and resources to develop a pro-active outreach program to recruit applicants from rural areas of the province.

c. The WG also felt that outreach should also include programming to recruit applicants from low socio-economic groups and regions.

d. The medical school should hire an in-house financial advisor for medical students.

e. The medical school should review its bursary structure and optimize bursaries for students with limited economic resources.
Recommendation III: Build on the Scientific Basis of Medicine

“Given that medicine is rooted in fundamental scientific principles, both human and biological sciences must be learned in relevant and immediate clinical contexts throughout the MD education experience. In addition, as scientific inquiry provides the basis for advancing health care, research interests and skills must be developed to foster a new generation of health researchers.”

WORKING GROUP ASSESSMENT

The WG found that the MD program is largely meeting this recommendation. Specifically, it noted that:

1. Basic Sciences are integrated throughout all the courses, owing to the systems structure and the clinical presentation orientation of the curriculum.

2. There is growing interdepartmental collaboration. The non-systems courses (such as Medical Skills, Population Health, etc.), indeed, are dependent upon interdepartmental collaboration. All courses are mandated to have a family physician as a member of the course committee.

3. The Integrative course in particular exposes students in very small groups to clinical cases in which the basic and clinical sciences are tightly integrated.

4. There are opportunities available to all students to conduct research. Electives can be and are used by students to pursue research, and the Evidence-Based Medicine course includes research and self-directed projects.

5. Students wishing to pursue a joint graduate degree-MD training program are able to do so through the Leaders in Medicine program. Approximately six students each year pursue joint degrees through this program.

6. Some students undertaking core projects in Population Health and self-directed or research projects in Advanced Evidence-Based Medicine (MDCN 440) encounter funding barriers in bringing their projects to fruition.

OPTIONS FOR FUTURE DEVELOPMENT

a. An emphasis on interdepartmental collaboration should be articulated and practically enabled so that all of the numbered systems courses have skilled teachers and curriculum planners who come from a variety of specialties relevant to the system.

b. The Office of Research Ethics and the Evidence-Based Medicine course should be encouraged to continue their work in expediting the ethics review of projects that include a sizeable level of student involvement. This work should be extended to facilitate student research electives and Population Health Course community core projects.
c. A small student research fund could be established through a donor request. The fund could provide small amounts of money (up to $500 or $1000) for worthy student projects in Population Health and MDCN 440, based upon a peer-review mechanism. Not only would this facilitate student projects, but would also provide an additional route for our students to demonstrate peer-review success of their scholarship.
Recommendation IV: Promote Prevention and Public Health

“Promoting a healthy Canadian population requires a multifaceted approach that engages the full continuum of health and health care. Faculties of Medicine have a critical role to play in enabling this requirement and must therefore enhance the integration of prevention and public health competencies to a greater extent in the MD education curriculum.

WORKING GROUP ASSESSMENT

The WG found that the MD program is not only meeting this recommendation’s vision, but may be a model for other schools. It found that:

1. The Population Health course provides a strong foundation in public health and population-based disease prevention. Through its wide variety of formal teaching sessions and community group interaction, students get a strong blend of theory and practical exposure and application experience. Many of these learning themes are reinforced in Global Health.

2. The Family Medicine Clinical Experiences course running through Years 1 and 2 provide numerous patient encounters to medical students in which disease prevention and health promotion figure prominently.

3. There is strong support for students and faculty who wish to develop community-engaged initiatives, such as the Brydges Student-Run Clinic.

4. Public and preventive health care topics comprise a large component of the Medical Council of Canada Qualifying Examination Part I.

OPTIONS FOR FUTURE DEVELOPMENT

Recognizing that this area is already strong in our MD program, the WG felt that - aside continuous course quality improvement – minimal new development needs to occur to meet the vision of this recommendation. Some options could include:

a. Requiring students in the Family Medicine Clinical Experiences to identify health promotion and disease prevention issues for each patient they see.

b. Auditing the curriculum to ensure that population health issues are discussed/address for those clinical scenarios that have specifically relevant population health issues (e.g. adult with pertussis with a newborn child at home, parasitic diarrhea).

c. Develop initiatives to increase the awareness of public health training opportunities (through electives, MDCN 440, etc.).
d. Increase the integration of health promotion and population health learning within cases across courses. (A working group could be appointed to address this and how to include the integration of additional competencies in case-based learning.)

e. Improve the involvement and integration of public health physicians into the curriculum.
**Recommendation V: Address the Hidden Curriculum**

“The hidden curriculum is a ‘set of influences that function at the level of organizational structure and culture,’\(^3\) affecting the nature of learning, professional interactions, and clinical practice. Faculties of Medicine must therefore ensure that the hidden curriculum is regularly identified and addressed by students, educators, and faculty throughout all stages of learning.”

**WORKING GROUP ASSESSMENT**

1. The WG relied heavily upon the knowledge of both Drs. Veale and Busche, who read every student comment from learning experiences in their respective curricular domains. They noted that students appear quite willing to clearly identify any faculty member who says unprofessional things, including about other health professionals. Any such issues are followed-up by the UME leadership and course leaders.

2. There is an ongoing audit of small cases by master teachers to identify (and resolve) any small group cases in which members of different fields or professions are cast in a negative light. There were a small number of concerning scenarios found during the initial audit of 2009-2010, which have been all addressed. New hidden curriculum issues are detected and remediated as part of the ongoing phase of the audit.

3. While there appears to be no formal documentation of hidden curriculum messages (such as on slides or in handouts), students report that verbal hidden curriculum messages that portray other specialties negatively are still being delivered.

4. The concept of hidden curriculum is not overtly probed-for within course evaluations completed by medical students. Regardless, Drs. Veale and Busche both report that students do not seem reticent at reporting faculty behavior that they see as unprofessional.

5. Students are made aware of the Office of Professionalism, which can provide confidential and arms-length support and guidance to students struggling with difficult encounters with faculty members.

6. A Professionalism Council has been created which oversees professionalism issues across the whole Faculty of Medicine.

7. A student-faculty mentorship program is in place with assigned mentors for each student. It has variable success across a broad range from single encounters to high-level ongoing mentoring. The UC experience is consistent with that at other LCME-accredited schools.

8. Though documented in the literature as one of the most commonly denigrated fields, Psychiatry is not subjected to hidden curriculum derision at UC. Indeed, it has been noted by the Canadian Mental Health Commission that UC is a model for respect for clinicians who care for patients with

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mental health challenges, and as a model for an institution where there is minimal (if any) stigma towards mental health in general. It was felt that this outcome is partly due to the excellent curriculum work by Drs. Philip Stokes and Lauren Zanussi, and others in delivering an outstanding mental health course in the preclerkship period.

9. The WG found that hidden curriculum messages can extend beyond health care, and may include messages that place less value on personal health and balance.

OPTIONS FOR FUTURE DEVELOPMENT

The WG felt that, while UME had initiated a variety of interventions to address the hidden curriculum, it was possible the job may not be complete. It noted that Drs. Keith Brownell and Jordan Cohen are well poised (as co-chairs of the Physicianship component of Medical Skills) to lead any further initiatives related to the hidden curriculum.

The WG concluded that the best way forward was to continue to monitor potential hidden curriculum and discuss problems with Drs. Brownell and Cohen as required.
Recommendation VI: Diversify Learning Contexts

“Canadian physicians practice in a wide range of institutional and community settings while providing the continuum of medical care. In order to prepare physicians for these realities, Faculties of Medicine must provide learning experiences throughout MD education for all students in a variety of settings, ranging from small rural communities to complex tertiary health care centres.”

WORKING GROUP ASSESSMENT

The WG recognized that it is ideal for medical students to train in a variety of contexts so that (1) a broad range of clinician practice opportunities are made apparent to students, and (2) they will better understand the health system and geographical issues that will enhance their own functioning when they interface with different contexts in future practice.

From a primary/secondary/tertiary/quaternary care perspective, the WG found that:

1. Students get adequate primary care exposure through the Family Medicine Clinical Experiences course and the Family Medicine Clerkship or UCLICC. A small number of students will gain additional primary care exposure when placed with primary care paediatricians during their clerkship block.

2. A small number of students train at secondary care centres (such as Lethbridge and Medicine Hat). There is insufficient capacity at our secondary care centres to accommodate all students in a secondary care experience.

3. Students get adequate tertiary care exposure through many of the clerkship blocks. Students in the UCLICC get tertiary care experience during their Paediatrics and Internal Medicine Clerkship (which they take in addition to their UCLICC experiences). All students will typically get some level of quaternary care exposure (i.e. highly specialized) during their core clerkship blocks.

From an urban/rural/remote perspective, the WG found that:

4. All students get exposure to urban clinical training, primarily through hospital-based experiences.

5. All students have access to rural training during their core clinical experiences. Half of students take rural options through the Family Medicine Clinical Experiences courses. Half of students will typically pursue rural locations for their Family Medicine Clerkship, and smaller percentages of students will have rural placements in other core clerkship rotations. Some of these numbers will be the same students pursuing rural opportunities in a variety of courses and clerkships. While it is likely possible for every medical student to train in a rural area at some point, the current capacity to do so is “tight” and would likely result in limitations on individuals wishing to pursue more than a minimum of rural training.
6. All students have the ability to apply for the UCLICC, which has 19 positions for the 2014-2015 clerkship period. More students apply for UCLICC than there are positions available.

7. Through Electives, students have the opportunity to augment their core experiences with virtually any combination of local/global, urban/rural/remote, primary/secondary/tertiary/quaternary care settings. Additionally, many students will pursue informal shadowing opportunities (and are required to advise UME of the shadowing arrangements).

8. Students interview patients from specific populations (e.g. disabled, aboriginal, homeless) with these interviews taking place in the individual’s home environment (outside of the formal medical care setting).

OPTIONS FOR FUTURE DEVELOPMENT

The WG felt that the following option would strengthen the school’s performance in diversifying learning contexts.

a. UMEC should consider whether it be a requirement that all students train in a rural area at some point in their MD program. Coupled with this is a requirement to increase rural training capacity to enable this to occur.
Recommendation VII: Value Generalism

“Recognizing that generalism is foundational for all physicians, MD education must focus on broadly based generalist content, including comprehensive family medicine. Moreover, family physicians and other generalists must be integral participants in all stages of MD education.”

WORKING GROUP ASSESSMENT

The WG first explored the concept of generalism and found that:

a. “Generalism” is not exclusively “family medicine”, and that not all “generalists” are “family physicians”, though the majority of generalists may be family physicians. Other generalists include general internists, general surgeons, general paediatricians, etc.

b. The reason to value generalism and deeply involve generalists in the delivery of medical education is two-fold: (1) for the pedagogical strengths that generalists bring to curriculum (particularly the ability to describe approaches to unclear and complex situations, including the assessment and management of patients with multi-morbidity), and (2) for the opportunity to illuminate the important clinical role of generalists within our medical system (to support career decision-making and overall system understanding).

In reviewing the current state of our UME program, the WG found that:

1. As described earlier, there is a current ongoing strategy in place to ensure family physicians are engaged in teaching around concepts that are part of their scope of practice and to illuminate the career of family medicine to support student career choice in the specialty.

2. As part of this FM strategy, all courses are required to have family physicians as committee members. Given that not all courses have regular committee meetings, it is unclear whether all courses are receiving value from their family physician members.

3. The clinical presentation orientation of the curriculum should lend itself well to strong engagement of generalist physicians.

4. The Master Teacher program includes many generalists (including family physicians), and therefore medical students get large exposure to generalists during small group teaching.

5. Sub-specialists within the Master Teacher program also function as generalists when facilitating small group sessions, the content of which is different from their area of clinical sub-specialization.

6. The Family Medicine Clinical Experiences courses (MDCN 330/430) guarantee that all medical students get exposure to early undifferentiated patient care early in their training.
7. During their third year of training (Clerkship), medical students are guaranteed exposure to undifferentiated patient care through, at least, their family medicine and emergency medicine clerkship rotations. Other rotations may also include exposure to patients with new and undifferentiated symptomatology.

8. Some of the numbered courses have made great progress towards improving their generalist orientation and eliminating/reducing highly detailed sub-specialist content that was beyond the level of medical student learning.

9. A new UME initiative has just started through which all of the numbered courses will undergo external review by chairs of other numbered courses, with the assistance of students and master teachers. One of the key goals of this review is to ensure content is appropriate for medical student learning.

**OPTIONS FOR FUTURE DEVELOPMENT**

The WG felt that, overall, the UME program had made progress towards ensuring an appropriate generalist/sub-specialty balance. However, it determined that there was still room for improvement, noting that in some courses, a cultural change might be needed to ensure this balance was achieved.

The WG recommended that:

1. All course committees have the following as members (1) a family physician, (2) a non-family physician generalist, (3) at least one expert from the course content area (i.e. clinicians who are be sub-specialists working within the content area of the course).

2. The presence and effectiveness of generalists within UME curricula be monitored regularly.

3. Course committees hold an overall course evaluation and strategy planning session each year.

4. Each course to develop a plan on how to incorporate generalists meaningfully into course governance and educational activities.
Recommendation VIII: Advance Inter- and Intra-Professional Practice

“To improve collaborative, patient-centred care, MD education must reflect ongoing changes in scopes of practice and health care delivery. Faculties of Medicine must equip MD education learners with the competencies that will enable them to function effectively as part of inter- and intra-professional teams.”

WORKING GROUP ASSESSMENT

The WG reflected upon the concepts of inter- and intra-professionalism and determined that it was important to clearly identify the key elements within the concepts, namely:

a. skill development so that medical graduates will be able to “function effectively” as members of teams, both inter-professional and intra-professional (meaning with other physicians),

b. teaching of medical students by other health professionals who are fully trained in their fields, and

c. learning and studying side-by-side with learners from other health professional training programs.

In assessing the existing and imminently planned curriculum, the WG found that:

1. Within Population Health, students receive a significant amount of patient safety and team training, including teaching conducted by non-physician health professionals.

2. Effectiveness within interprofessional teams has been a key theme within the Introduction to Clerkship Course, and is planned to take even greater prominence within its successor, Introduction to Clinical Practice (commencing June 2014).

3. Non-physician health professionals currently teach medical students in a number of courses, including teaching by orthoptics, casting technicians, nurses, respiratory therapists, and kinesiologists.

4. Within Course 6, the paediatric simulation and obstetrics clinical core sessions include heavy emphasis on interprofessional teams.

5. Within all clerkship rotations, students belong to interprofessional teams. Some rotations require medical students to shadow other health professionals to understand their roles better and acquire new skills.

6. Training medical students “side-by-side” with other health profession learners involves an extraordinary amount of planning and coordination. The current brief co-learning with nursing students in Population Health is an example of this.
OPTIONS FOR FUTURE DEVELOPMENT

The WG felt that, overall, UME should emphasize the development of skills that will enable medical students to be effective members of inter- and intra-professional teams (type a), and also strengthen teaching of medical students by other health professionals (type b). In particular, it recommended that:

1. Training in consultation (requesting, giving and follow-up) between physicians and amongst other health professionals be a learning theme of the UME curriculum. (This is planned to expand in the Introduction to Clinical Practice course.)

2. Pre-clerkship learning sessions should identify the roles of other health professionals in the management of patients where particularly relevant. The outcomes of engagement with these health providers should be illuminated.

3. Clinical clerks be required to demonstrate team effectiveness in clerkship, and that this be specifically assessed.

4. Clinical clerks be involved in critical incident debriefing, including discussion about how the team succeed or failed in the scenarios.

5. Informal initiatives between medical students and other health professional learners be encouraged and possibly supported.

6. UME could pursue the development of faculty lead or working group to explore best practices and develop options for enhancing our interprofessionalism curriculum.
Recommendation IX: Adopt a Competency-Based and Flexible Approach

“Physicians must be able to put knowledge, skills, and professional values into practice. Therefore, in this first phase of the medical education continuum, MD education must be based primarily on the development of core foundational competencies and complementary broad experiential learning. In addition to pre-defined curriculum requirements, MD education must provide flexible opportunities for students to pursue individual scholarly interests in medicine.

WORKING GROUP ASSESSMENT

The WG found that:

1. The UME program’s goals and objectives have mostly been worded in active verb tense with demonstrably achievable objectives. Even so, this WG initiative will be reconfiguring these into a CanMEDS orientation.

2. The UME program has an informally-labeled mechanism to enable students who simply require more time to be able to demonstrate the end objectives to do so. Namely, students who are nearing the end of clerkship and are still not yet largely meeting the objectives are permitted to continue their clinical training period by up to one year. These students enter the CaRMS match one year later than they would ordinarily have.

3. Students are assessed through an ongoing assessment model, including the Associate Dean’s Examination. While student performance within an individual is not typically forward-fed to future rotation to ensure fairness for students, their overall progress is reviewed by the UME leadership and, if any student displays a pattern of academic difficulty, by the Student Academic Review Committee (SARC).

OPTIONS FOR FUTURE DEVELOPMENT

Appendix 1 of this report comprises a proposed CanMEDS alignment of the UC UME Program goals.

The WG noted that a range of competency education elements may be fully or partially embraced, and that partial adoption of competency elements is not necessarily a bad thing. The WG noted that traditionally at UC, the pedagogical culture has typically led to objectives being worded in a demonstrable sense – a defining element of competency training. Also, it was noted that preceptors seem to take an entrustable approach to completing clerkship In-Training Evaluation Reports (ITERS).

The WG struggled with a complete adoption of a competency approach, in the sense that it was uncomfortable with the notion of varying completion timelines for different students as a routine, and with the risk that some students might perceive that caring for one specific clinical scenario once might mean that further exposure was unnecessary. The WG also noted that leaders in medical education in Canada and worldwide have openly raised doubts about the push towards a full competency-based curriculum.
The WG felt that UME’s prime mission was to produce graduates who would be able to meet the health care needs of Albertans. As a result, the WG felt a natural extension would be that the school had a responsibility to do things that Albertans needed to do, and therefore key elements of competency-based education are important for our curriculum, as they always have been.

The WG felt that:

1. Learning session objectives should always be worded in active-verb sense, describing an activity that students could demonstrate when required (during assessment or real professional activity).

2. Two key milestones be described for UME learners:
   a. “clerkship-ready” – i.e. at the conclusion of the pre-clerkship period, students should be ready to enter clerkship and have the knowledge, skills, and attitudes necessary to function effectively as a clerk and continue to build their professional development, and
   b. “residency-ready” – i.e. at the end of medical school, that our graduates will be ready to enter any residency program in Canada and function effectively as residents.

3. While the “residency-ready” milestone is described by the end-of training CanMEDS competencies (see Appendix 1), the “clerkship-ready” milestone is not well described. Accordingly, a working group will need to explore this issue and define what a learner who is “clerkship-ready” looks like and is able to do. This description will help guide the pre-clerkship courses in curriculum development – both in identifying gaps that need to be filled, and in identifying content that is well beyond the needs to be “clerkship-ready”.
**Recommendation X: Foster Medical Leadership**

“Medical leadership is essential to both patient care and the broader health system. Faculties of Medicine must foster medical leadership in faculty and students, including how to manage, navigate, and help transform medical practice and the health care system in collaboration with others.”

**WORKING GROUP ASSESSMENT**

The WG found that:

1. The Office of Faculty Development has regularly offered training on various leadership skills, and includes them within the Teaching Scholars in Medicine Program (TSIMP).

2. The Faculty has also initiated a Leadership Program, led by Dr. Peter Craighurst (Head of Oncology), that will provide leadership training and mentorship to faculty members.

3. Population Health provides training in advocacy and in how our health system operates. There is a small amount of teaching regarding how to run a practice.

4. Students with an interest in medical leadership have a number of opportunities to take roles in student leadership. Those who become class vice-presidents of education gain exposure to a variety of leadership opportunities and mentorship.

5. Introduction to Clerkship and Course 8 currently teach students skills in negotiation and conflict management.

**OPTIONS FOR FUTURE DEVELOPMENT**

The WG felt that the primary focus for the UME program is the training of physicians to meet the health care needs of Albertans, and core to that is the training of “residency-ready” physicians. It felt that medical leadership development should be regarded as a continuum theme, meaning that physicians will grow into leaders over time and that the UME program should focus on what the student-level leadership skills should be.

The WG recommended that:

1. A working group be enabled to tease apart leadership skills and attributes and determine what the student-level for each would be. (A similar effort for patient safety skills and attributes is currently underway.) This might ideally be a multi-institutional collaborative effort.

2. The UME program should identify what are “core” objectives and experiences for leadership development (i.e. for all medical students) and what would be “elective” objectives and experiences.

3. Course leaders (chairs and co-chairs) should be mentored in their roles, including formal training in curriculum development, delivery and evaluation.
Appendix A: PROPOSED UC UME Program Competency Framework

Medical Expert

Graduating medical students will be able to provide supervised patient-centred medical care.

To demonstrate this competency, graduating medical students will be able to:

1. Explain the clinically relevant basic science for specific patients.
2. Conduct a patient-centred history that illuminates the health history, social context and illness experience for each patient.
3. Conduct a patient-centred history with family or other patient contacts for situations when patients are unable to fully speak for themselves (such as with infants, trauma patients, or people with dementia).
4. Conduct a relevant physical examination and identify abnormal physical findings.
5. Seek out additional information from documents, collateral historians and other health care providers.
6. Describe the (negotiated) health goals for each patient.
7. Suggest preventive health care interventions that are relevant for each patient.
8. Identify the health problems and likely differential diagnoses for each patient.
9. Describe how medical evidence applies to specific patients.
10. Develop a patient-centred investigation and management plan.
11. Perform procedures consistent with the level of training. (Ref: ED-2 Procedure List as confirmed at Clerkship Committee, 2014)

Communicator

Graduating medical students will demonstrate excellent communication that is attentive to patient/family needs and respectful.

To demonstrate this competency, graduating medical students will be able to:

1. Demonstrate thoughtful communication through verbal and non-verbal techniques.
2. Demonstrate respect and empathy.
3. Demonstrate effective written communication regarding patient care.
**Collaborator**

Graduating medical students will be effective within health care teams.

To demonstrate this competency, graduating medical students will be able to:

1. Describe the roles of different health professionals in the care of specific patients.
2. Seek out the perspectives of other health professionals regarding specific patients when relevant.
3. Make clear and helpful requests for consultation by other health professionals.
4. Provide clear and helpful responses for consultation.
5. Demonstrate respect for other health professionals.
6. Create patient care records that capture the multi-disciplinary care provided to patients.

**Manager**

Graduating medical students will be able to manage the care of the patients and populations they serve.

To demonstrate this competency, graduating medical students will be able to:

1. Describe the structures and processes of the health care system.
2. Describe the determinants of health and apply them to specific patients. (Question for UMEC: where does this one best sit?)
3. Identify risks for patient safety during health care provision and describe strategies to mitigate these risks.
4. Demonstrate prudent stewardship of health care resources.

**Health Advocate**

Graduating medical students will be able to advocate for needed services for specific patients and for systemic change that will advance population health.

To demonstrate this competency, graduating medical students will be able to:

1. Identify when gaps in care or therapy for patients exist and how to remedy such gaps.
2. Identify when threats to population health exist and how to mitigate such threats.
3. Describe the role of physicians in community and governmental organizations.
Scholar

Graduating medical students will be able to effectively develop self-learning plans to address gaps in knowledge and skill when they become apparent, as part of life-long learning.

To demonstrate this competency, graduating medical students will be able to:

1. Formulate clear and answerable questions regarding health and health care issues.
2. Conduct a focused search to answer health care questions using reliable sources and critically appraise the results.
3. Describe the basic principles of clinical and translational research, including how such research is conducted, evaluated, explained to patients and applied to patient care.

Professional

Graduating students will behave in an ethical and professional manner.

To demonstrate this competency, graduating medical students will:

1. Follow relevant professional codes of conduct and ethics.
2. Describe the elements of physician wellness.
3. Disclose to their supervisors when they are unable to provide safe and effective patient care.
4. Disclose to their supervisors when a medical error or "near miss" has occurred and propose an appropriate remedy.
5. Give and receive feedback on performance.
Appendix B:

UME Educational Objectives
(UMEC Revision, Approved June 4, 2010)

A student at the time of graduation will be able to:

- Demonstrate the basic science and clinical science knowledge and skills necessary for the supervised practice of medicine, and use knowledge efficiently in the analysis and solution of clinical presentations.
- Evaluate patients and properly manage their medical problems by:
  1. Conducting a comprehensive medical history and thorough physical examination; reliably eliciting appropriate information in the history and detecting abnormal findings on the physical examination.
  2. Correctly identifying the patient’s medical problems.
  3. Applying an appropriate clinical reasoning process to the patient’s problems.
  4. Formulating and implementing a management plan to deal effectively with these problems.
- Apply a comprehensive patient-centered approach in the evaluation and care of patients including sensitivity to cultural and spiritual beliefs, attitudes and behaviours.
- Demonstrate knowledge of the fundamental concepts of disease prevention and health promotion for individual patients and populations and incorporate them into treatment plans as appropriate.
- Communicate and interact effectively with patients, families, medical staff and others involved in the delivery of health services.
- Describe and apply high ethical principles and standards in all aspects of medical practice.
- Exhibit appropriate professional behaviour.
- Formulate clear clinical questions and apply an evidence-based approach to solving these questions.
- Demonstrate self-directed life-long learning skills.
- The curriculum must introduce students to the basic principles of clinical and translational research, including how such research is conducted, evaluated, explained to patients and applied to patient care.