



Undergraduate Medical Education  
UNIVERSITY OF TORONTO

INSTITUTIONAL SELF-STUDY SUMMARY REPORT

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## **PREAMBLE**

The University of Toronto (U of T) School of Medicine was founded in 1843, and in 1910 was cited by Flexner as one of the “excellent” medical schools in North America. By 2011, U of T Medicine was ranked fourth globally by the Higher Education Evaluation and Accreditation Council of Taiwan in the category of “Clinical Medicine,” reflecting our research-intensive academic enterprise. U of T has the only Faculty of Medicine in the Greater Toronto Area (GTA) – a region with a population of approximately six million people – placing us in a unique position within one of the most culturally diverse cities in the world. The Faculty of Medicine is committed to a *mission* of fulfilling its social responsibility by developing leaders, contributing to our communities, and improving the health of individuals and populations through the discovery, application, and communication of knowledge. The Faculty of Medicine’s *vision* is to achieve international leadership in improving health through innovation in research and education. In this context, the Undergraduate Medical Education (UME) program prepares physician leaders who will contribute to the transformation of health care globally by applying the CanMEDS principles throughout their career. The success of the UME program has been achieved through a long-standing collaboration with nine academic hospitals that are fully affiliated with the U of T and an increasing number of community-affiliated hospitals and clinical care sites in the GTA, all dedicated to a shared academic mission.

## **BACKGROUND – SETTING OF THE SCHOOL**

The U of T, its affiliated hospitals, and all other clinical teaching sites are public institutions funded by the provincial Government of Ontario. The U of T has a long-standing relationship of over 100 years with the oldest of its fully-affiliated academic hospitals in downtown Toronto where the majority of MD student and resident teaching was first established, including The Hospital for Sick Children, Toronto General Hospital, Toronto Western Hospital, and St. Michael’s Hospital. Over the past four decades the following additional hospitals in metropolitan Toronto have become fully-affiliated with U of T: Mount Sinai Hospital; the Centre for Addiction and Mental Health; Sunnybrook Health Sciences Centre; Women’s College Hospital; Holland-Bloorview Kids Rehab; and, the University Health Network (consisting of Toronto General and Toronto Western Hospitals, Princess Margaret Hospital, and the Toronto Rehabilitation Institute). Growth of the fully-affiliated hospital clinical programs and research institutes has enabled expansion of the number of academic physicians, clinician-scientists, PhD scientists, postgraduate MD trainees, and graduate (MSc/PhD) students in Toronto. The confederation of the U of T Council of Health Sciences, the nine fully-affiliated hospitals and four major community-affiliated hospitals forms the Toronto Academic Health Science Network (TAHSN), discussed in greater detail in the IS section of this report. MD student teaching and learning over the past two decades have occurred largely in the “Academies,” formed by partnerships between the University and the fully-affiliated hospitals that serve as primary clinical “homes” for subsets of the medical student body. Although the “Academies” have historically resided in the fully-affiliated acute care hospitals, they now incorporate several of the major community affiliates as key partners. Capital investment by the affiliated hospitals in the Undergraduate Medical Education (UME) Medical Academy infrastructure and administrative support has strongly supported excellence in the UME program.

Although postgraduate MD training has included a limited number of community-affiliated hospitals in the GTA for many decades, over the past 10 years the rapid expansion of postgraduate training in Family & Community Medicine, in conjunction with provincial support for the establishment of academic primary health care teams, has facilitated an increase in the number of community affiliates. Today, U of T Medicine is part of a growing network of 18 community-affiliated hospitals and teaching sites in the GTA. In 2011, the first entirely community-based Academy was launched in Mississauga as a partnership between the U of T Mississauga campus (30 km west of downtown Toronto) and The Credit Valley Hospital & Trillium Health Centre. The Mississauga Academy of Medicine (MAM) represents the sole “geographically separate instructional site” in the UME program as per the LCME/CACMS definition.

The UME program is core to the Faculty of Medicine at the U of T. The major *goals* of the UME Program state that “*our MD graduates will demonstrate the foundation of knowledge, skills, and attitudes necessary to achieve the CanMEDS competencies and the four principles of Family Medicine,*” and that “*the UME curriculum will encourage, support, and promote the development of future academic health leaders, who will contribute to our*

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*communities, and improve the health of individuals and populations through the discovery, application and communication of knowledge.”*

The U of T has the largest MD training program in Ontario (with 259 entry students as of 2011-12), and one of the largest in Canada. The student acceptance-to-admissions-offer rate was 81% in 2011, and is consistently one of the highest in the country. MD graduates from U of T not only acquire the medical knowledge required of physicians but they also attain the professional values, interpersonal competencies, and scholarship necessary for practice in a rapidly changing health care environment. These students are deeply engaged in learning activities outside of the formal curriculum, volunteering their time and talents in community-based local and global high-needs activities with children and youth, the homeless, the aged, and indigenous and immigrant populations. U of T medical students produce scholarly publications that include the *University of Toronto Medical Journal* (UTMJ), *Toronto Notes* (a study guide for medical council exams), and *Pharmacology You See* (a pharmacology review for health professionals).

The Faculty currently enrolls 2,092 MD residents in 78 accredited postgraduate programs, 1147 MD fellows in advanced clinical training, and 82 MD fellows in advanced research training. Close to 3,000 graduate students are registered in Faculty of Medicine programs in the MSc/PhD-stream – two-thirds of whom are located off-campus in the fully-affiliated hospitals and their research institutes – and in health professional master’s programs in rehabilitation sciences (occupational therapy, physical therapy, speech-language pathology), nutritional sciences, health administration, genetic counselling, and physician-assistant training. Public health degrees previously fell under the Faculty of Medicine, but since 2009, have been the purview of the newly-established Dalla Lana School of Public Health. Other Health Science Faculties at the University include Dentistry, Nursing, Pharmacy, Kinesiology & Physical Education, and Social Work. The Faculty supports two BSc professional programs: medical radiation sciences, and physician-assistant. The interprofessional educational experience of our medical students is enriched within this multi-disciplinary learning environment through core curriculum and mutual exposure in clinical settings.

#### **A. Results of the last University of Toronto Accreditation Survey (2004)**

In 2004, the University of Toronto Undergraduate Medical Education program was awarded full accreditation for eight years by the LCME and CACMS. *All non-compliant standards and areas in transition identified in 2004 were subsequently addressed by the program to the satisfaction of the LCME and CACMS, as described below.* As per the procedures at the time, CACMS and the LCME were each responsible for preparing individual responses, and these were generally consistent.

**IS-14:** LCME determined that the program was non-compliant due to insufficient research opportunities available to Preclerkship students. The UME program responded by creating the Comprehensive Research Experience for Medical Students (CREMS) umbrella program, with the Provost’s Academic Initiatives Fund of \$1 million supporting student stipends, a Directorship and administrative assistance. In 2006, the LCME concluded the program was in compliance. The subsequent growth and refinement of CREMS is detailed later in this report and in the database.

**ED-11:** CACMS and the LCME identified concerns with this standard due to curriculum deficits in pharmacology, nutrition, and genetic counselling. New objectives and teaching sessions in pharmacology across the four years of the program were developed, including teaching in the newly-introduced Passport to Clerkship course (now the Transition to Clerkship) at the start of Year 3. Nutrition teaching was substantially strengthened in the first-year Metabolism & Nutrition course, as well as in the other Preclerkship block courses, in DOCH-1, and in Clerkship didactic sessions. Genetic counselling sessions were substantially revised for 2006-07, and content was also strengthened in both the second-year block courses and didactic sessions added to Clerkship rotations. In 2006, CACMS and LCME determined the program was in compliance. Since that time, the emphasis on pharmacology in particular has continued to increase: it is identified as a theme with two designated faculty leads who work with course directors and sit on the Preclerkship and Clerkship Committees to ensure continuity of this topic throughout the curriculum. A new two-week Clinical Pharmacology & Therapeutics

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block was created as a distinct unit in Year 1. The increased volume of and emphasis on nutrition and genetic counselling are preserved in the new curricular schedule.

**ED-13:** CACMS made a determination of non-compliance based on insufficient coverage of palliative and end-of-life care in the curriculum. In 2006, UME reported that end-of-life and palliative care were the subjects of a week-long unit in the second year program, and also addressed in substantial detail at various other points in the Preclerkship. In the Clerkship, a palliative care working group completed an environmental scan and introduced additional relevant didactic and clinical content into the clerkship curriculum. In 2008 CACMS and LCME concluded that compliance was achieved. On the 2011 CGQ, 85.5% of students reported that instruction in end-of-life care was appropriate, compared to a national average of 75.9%.

**ED-30:** CACMS and the LCME found that the program was non-compliant with this standard due to a lack of formal, performance-specific mid-rotation feedback in some core clinical clerkships. The UME program iteratively developed a formalized mid-rotation process for all courses including the completion of a mid-rotation feedback form, and by 2008 both LCME and CACMS had determined that the program was compliant. More recently, most rotations have transitioned their mid-rotation evaluations to the online MedSIS system to permit easier tracking, and this has been accompanied and strengthened by mid-rotation review of the logging of required encounters and procedures, in keeping with a newly adopted policy specifying the expectations for mid-rotation feedback. In 2010-2011, greater than 95% compliance with mid-rotation feedback was achieved across all courses.

**MS-4:** CACMS and the LCME determined that the program was non-compliant with this standard since the terms of reference of the Admissions Committee appeared to indicate that the final decision for offers of admission were vested in the Director of Admissions, instead of in the Committee. The Admissions Committee revised its terms in October 2004 to include explicit responsibility for approval of the selection of applicants to the MD program, and in August 2006 the LCME and CACMS found the program in compliance.

**MS-19:** CACMS and the LCME found this standard to be non-compliant, citing uncoordinated and fragmented career counselling and low satisfaction ratings from students. The UME program responded with initiatives including support for the *Canadian Medical Residency Guide* (a student-run publication) and one-on-one welcome meetings with the Director of Student Affairs in which she informed students of career service support. In 2006, UME created a career counselling position in the Office of Student Affairs. To address career exploration through electives, elective-type experiences for career exploration in the Preclerkship were facilitated, eventually via the Enhancing Educational Experiences program. The Electives Officer continued to provide guidance to students on choosing Clerkship electives. In August 2006, the LCME and CACMS determined that the program had achieved compliance with this standard. Since then, career counselling positions have expanded to 1.6 FTE.

**MS-23:** Both the LCME and CACMS had concerns that escalating tuition had not been matched by increases in student aid, while plans to strengthen financial counselling services had not yet been implemented. The UME program created a new Office of Student Financial Services (OSFS) staffed by a full-time Associate Registrar Student Financial Services and a half-time financial counsellor, under the leadership of the new position of Associate Dean Undergraduate Medicine Admissions & Student Finances. The Student Finance Committee was expanded and student members were included. Since that time, the University has followed the advice of the Dean and capped medical tuition increases at 2-4% per annum, below the average University of Toronto increases of 4.5%. Financial aid was significantly increased resulting in a 44% reduction in unfunded need between 2003-04 and 2005-06. In 2006, CACMS requested further follow-up, and in response to a second report in 2008 CACMS concluded that the program had come into compliance. Subsequently, OSFS activities have been considerably expanded as has fundraising (see below, MS question 7, and the database, MS-23).

Three areas were determined by CACMS and the LCME to be in transition in 2004:

- *Evaluation strategies for measuring and achieving institutional learning objectives were lacking.* The program reported in 2006 that the UME Program Evaluation Committee and the UME Curriculum,

Preclerkship and Clerkship Committees had identified outcome measures for these objectives, and LCME found the program in compliance. In 2008, the analysis of these outcomes was reported, and updated in 2010 showing a very small number of gaps and CACMS concluded the issue had been adequately addressed. Further details of subsequent development in this area are provided later in this report (Education Program, question 17, and in the database ED-46).

- *There was evidence of an emerging problem with **recruitment of tutors** in certain Preclerkship courses (ASCM, DOCH-1, and the former Foundations of Medical Practice course).* The follow-up report submitted in August 2006 described a new agreement developed through the Hospital University Education Committee (HUEC) that clarified expectations for Clinical Departments with respect to the number of teachers each would supply. The new Centre for Faculty Development enabled the training of more teachers for small-group settings. Course directors and Academy Directors reported no significant difficulty in recruitment, high levels of retention, and high ratings among students. The LCME and CACMS concluded that the issue was resolved.
- *The **affiliation agreements** for both full and community affiliates were in the process of being updated at the time of the last Accreditation survey.* New template agreements were submitted as part of the follow-up report to CACMS and the LCME in August 2006, and this requirement was satisfied. The full affiliate agreements were renewed in December 2011, and the community affiliate agreements will be renewed in 2012.

### **B. The self-study process**

The UME Accreditation Office was opened in autumn 2010, followed by a student leader briefing and launch by the students of their Independent Student Analysis (ISA) Task Force. The Required Course and Clerkship Forms were distributed to the course directors, along with data requests to designated contributors to the medical education database. In January 2011, the Institutional Self-Study Task Force was launched (membership is listed at the end of this report), and included the Chair (Senior Academic Coordinator for the Accreditation), the Dean, Vice-Dean UME, the student leader of the ISA, and six self-study committee chairs who are highly respected faculty members at arm's length from the day-to-day operations of UME to ensure an open and impartial review. Six self-study committees were created (one for each group of standards with the Institutional Setting split into two committees – one for Governance & Administration and the other for Academic Environment). The approximately 120 members of the committees were selected to broadly represent the full spectrum of academic rank, seniority, Departments, affiliated hospital sites, levels of direct involvement in UME, and Faculty leadership, and administrative staff. Each committee included two or more students, who were selected in consultation with the ISA leaders and the Associate Dean Health Professions Student Affairs. The Senior Academic Coordinator participated *ex officio* in each committee.

The students completed their survey, and produced the first statistical summary of their data in the spring of 2011. The self-study benefited tremendously from the openness of the ISA Task Force as it shared interim reports until the finalization of the ISA report, and the UME program is grateful to the students for their diligence and commitment to the self-study process. Each self-study committee divided into working groups focused on thematic subsets of questions from the *Guide to the Institutional Self-Study*, and they met from April to September 2011 and worked to consolidate their responses to the self-study questions into reports that identified areas of strength and concern along with recommendations for improvement. The self-study report reflects the detailed analysis of all six committees. The Task Force has been further informed by the results of online surveys that it helped design and administer through the last half of 2011 directed to: UME teaching faculty addressing key areas of the accreditation standards; all faculty members responding to the Faculty's *Diversity Statement*; and recent UME graduates (2011-12 PGY1s and PGY2s) focused on specific aspects of the UME curriculum.

On the strength of the interim results of the ISA and the self-study process, new initiatives were developed and implemented, including the adoption of new policies that either codified existing practices or established new ones ([www.md.utoronto.ca/policies](http://www.md.utoronto.ca/policies)). A Faculty Response (authored by the Dean and the Vice-Dean UME) to all the major concerns highlighted in the Independent Student Analysis was disseminated to the entire student body

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in September 2011, incorporating a description of many of the new initiatives and made available online at [www.md.utoronto.ca/about/accreditation](http://www.md.utoronto.ca/about/accreditation).

The accreditation process was communicated to the Faculty of Medicine constituents through the public website including: the ISA and Faculty Response to it; the correspondence between the LCME and CACMS and the Faculty of Medicine since the last accreditation survey; and, the self-study report. In addition, periodic news updates were transmitted to the Faculty community via the MedEmail newsletter, which is distributed electronically to all students, faculty, and staff twice a month. The Vice-Dean UME and the Senior Academic Coordinator for the Accreditation gave frequent presentations to the Dean's management committees, Faculty Council, the Hospital-University Education Committee, and the Education Deans' Committee. Accreditation was a major agenda item on all UME committees.

The Faculty of Medicine and its UME program have found the process of self-study and engagement of students, staff, and faculty throughout the period leading up to the site visit to be beneficial and constructive. The process joins several other quality assurance approaches employed by our University to renew and improve institutional and instructional frameworks, including an interim student self-study and curriculum review conducted in 2008. The current institutional self-study engaged faculty, students, and staff in broad discussion and reflection, resulting in important and transformational improvements related to UME and the Faculty of Medicine.

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## I. INSTITUTIONAL SETTING

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### A. Governance and administration

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#### 1. Describe how institutional priorities are set. Evaluate the utility and success of institutional planning efforts, and discuss how planning has contributed to the accomplishment of the program's educational, research, and clinical services missions.

Planning is an institutional priority necessary to sustain global competitiveness in biomedical research and education. The University sets priorities on a five-year cycle used to guide academic planning for all Faculties and Departments of the University. In 2008-09, the President of the University undertook a long-term planning process, *Towards 2030*, articulating key priorities including: research; educational programs and the teaching mission; excellence among faculty, staff, and students; and promotion of the contributions made by faculty, students, and staff to the prosperity and sustainability of society. Both *Towards 2030* and the University-level *Stepping Up Framework for Academic Planning 2004-2010* informed the Faculty of Medicine's latest cycle of strategic planning, culminating in the new *Strategic Academic Plan 2011-2016*, approved by Medicine's Faculty Council in September 2011. Two important foundational documents laid the groundwork for the Faculty planning process: the Dean's 2007 White Paper entitled *Renewal and Focus of the Faculty of Medicine's Strategic Plan*, establishing ten strategic directions for the Faculty and commitment to development of accountability benchmarks and performance indicators; and, the Faculty Self-Study completed for the November 2010 external review of the Faculty of Medicine. Underpinning the Faculty's *Strategic Plan* is its *mission*: to "fulfill our social responsibility by developing leaders, contributing to our communities, and improving the health of individuals and populations through the discovery, application and communication of knowledge."

The Faculty of Medicine's five-year planning cycle involves evaluation of internal and external environments and articulation of planning principles and priorities by the Dean, decanal team, senior management, and Departmental Chairs, with broad input from faculty and students in all programs, including UME, Postgraduate Medical Education (PGME), and graduate studies, and the affiliated hospitals and their research institutes. The utility and success of institutional planning are evident throughout the programs and administration of the Faculty. The following are some examples.

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### *Valuing faculty member teaching*

The University and Faculty Strategic Plans emphasize the importance of valuing teaching. In 2010, the Faculty of Medicine made significant revisions to the Decanal Promotions Manual, clarifying the academic performance criteria used to recognize excellence in teaching and education. Sustained excellence in teaching is recognized as sufficient alone for promotion through the ranks. Faculty members seeking promotion solely on the basis of scholarly achievement (i.e., research, creative professional activity, or both) are also required to document evidence of sustained teaching effectiveness, including contributions to UME, where applicable.

### *Building an information technology (IT) infrastructure*

The 2004-10 Faculty of Medicine Academic Plan and 2007 White Paper identified the need for enhanced IT infrastructure as a priority. This led in 2006 to the creation of the Discovery Commons (DC), a campus-based IT division with state-of-the-art equipment and expert staff who provide user support and in-house software development. In 2010, staff in the DC and UME shared a U of T “Excellence Through Innovation” award for the creation of software that permitted visiting and U of T medical students to easily apply and register for clinical electives, and garnering interest from medical schools across Canada. The DC has expertly installed and now operates the state-of-the-art videoconferencing equipment connecting MAM with the MSB. To support leading-edge computational research, (e.g., bioinformatics), the Faculty of Medicine collaborated with the Faculties of Arts & Science and Applied Science & Engineering to successfully compete for the Canadian Foundation for Innovation-funded \$21-million SciNet project establishing a high performance computing facility at U of T.

### *Community integration*

Improved integration of community-based medical education was identified as a priority in 2004 and 2007. The number of community affiliates increased from 11 in 2004 to 18 in 2011. In 2004, UME collaborated with 4 community affiliates to deliver 12 core clerkship experiences, and this has increased to 31 experiences delivered at eight community sites by 2011. Community-based teaching in the Preclerkship also increased, and now occurs at six community affiliates. UME now requires every clerk to complete at least one of their third-year core rotations and one fourth-year Transition to Residency selective in the community. MAM itself is a partnership among the Faculty of Medicine, the U of T at Mississauga, and two community hospitals (now merged). A key facet to success of integration has been the Toronto Integrated Medical Education (T-IME) project, launched in 2011. This transformative initiative is driving the expansion of physician teaching and learning (both medical students and residents) into community affiliates and setting new professional standards for accreditation, teaching capacity, and delivery of patient-centered, interprofessional, evidence-based care in urban, suburban, and rural settings.

### *Social responsibility – global health*

Social responsibility is a core value now running through all aspects of strategic goals and priorities. One particular aim in the *Strategic Academic Plan 2011-16* is “to build capacity to address local and global health-related system gaps.” Many initiatives now underway will support our faculty and students in global health projects in education, research, and clinical care. In 2012, the Faculty of Medicine will establish an Office of Global Health to assist faculty and students to prepare for academic and clinical activities in developing countries. In collaboration with the Dalla Lana School of Public Health, the PGME portfolio has created a Global Health certificate program for residents in all disciplines. Working with the University of Toronto’s Munk School of Global Affairs and Rotman School of Management and with hospital-based global health centres, the Dean of Medicine has developed a plan for an Institute for Global Health Equity and Innovation to open in the spring of 2012. In UME, a faculty lead for global health has been hired.

**2. Evaluate the role of the governance structure in the administrative functioning of the medical school. Is the governance structure appropriate for an institution of this size and these characteristics? Are there appropriate safeguards in place to prevent conflict of interest at the level of the governing board, are these safeguards being followed, and are these safeguards effective? Describe any situations that require review by or approval of the governing board (board of trustees) of the school or university prior to action being taken.**

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Since 1972, the University of Toronto has been unique among Canadian universities since it is governed by a unicameral Governing Council (GC) instead of a bicameral system of a Senate and Board of Governors. The GC has final approval of policy as presented by the Boards of the GC responsible for detailed review of proposals conducted in turn by the Committees that report to them. An Executive Committee determines GC agendas and reviews recommendations for completeness of investigation and constituent consultation within U of T. The meetings of the GC, the Boards, and their Committees are coordinated to establish an efficient approval cycle that enables individual Faculties of the University, including the Faculty of Medicine, to plan their submissions accordingly. Section 27 of the GC Bylaw addresses conflicts of interest. When possible conflicts arise, the GC member in question addresses the concern to the Chair of the GC and abstains as deemed appropriate. The database provides several examples of application of this policy (see IS-5, question (c)).

The governance structure of the University is responsive to the changing needs of its constituents, as addressed through periodic formal reviews (see Appendix IS-5/6.d.3 for a brief history of the GC and its reviews). The Task Force on Governance (2007-2011) concluded its revitalization work of the GC, which led to the creation of renewed policy documents, including the *Principles of Good Governance*, the *Mandate of Governance*, and the *Expectations and Attributes of Governors and Key Principles of Ethical Conduct*.

The academic authority for governance in Medicine is delegated by the GC through its Academic Board to the Faculty Council (FC) of the Faculty of Medicine. The FC is responsible for elaboration of all relevant University policies and approval of all Faculty of Medicine policies. The FC must approve all major modifications to existing degree programs, modifications to transcript notations (i.e., grading practices) within existing degree programs, and the establishment, termination, and modification of diploma and certificate programs. More significant decisions, such as the creation of new degree offerings, major restructuring of programs and Departments, and budgetary allocations for capital projects require approval of the Boards and Committees of the GC. Significant legal documents such as the hospital affiliation agreement templates require GC approval. The FC has undertaken its own revitalization process under the leadership of two successive Speakers with articulated goals that focus on improving the stature, transparency, and functioning of the FC to better fulfill its role in ensuring involvement of all constituencies in the governance of the Faculty. The FC Bylaws were revised in 2010 to include, among other changes, new conflict of interest statements for each of the Boards of Examiners (committees of FC that make decisions about student grades, promotions, and dismissals for each health professions' education program). Posting of the draft minutes of FC meetings and supporting materials on the Faculty of Medicine public website commenced in 2011 to improve communication.

The UME program keeps the Education Committee of FC informed of all curriculum changes. More substantial changes to the curriculum (e.g., the change in grade transcription to Credit/No-credit) must proceed via the Education Committee to FC for approval. A major initiative such as the creation of the MAM required multiple layers of approval up to and including GC that addressed all aspects of the project, including enrolment increase, the new building construction at U of T Mississauga, significant infrastructure renewal in the MSB on the St. George campus, and new affiliation agreements with the community-affiliated hospitals.

**3. Evaluate the relationship of the medical school to the university and its clinical affiliates with respect to the effectiveness of the interactions between medical school administration and university administration, and the cohesiveness of the leadership among medical school administration, health sciences center administration, and the administration of major clinical affiliates.**

Regular interactions between the leadership of the Faculty of Medicine and U of T senior administration are positive and effective. The Dean of Medicine serves on the Provost's Executive Committee and other senior leaders in the Faculty assume important GC roles, including Chairs of the Academic Board, and Committees of Planning & Budget Committee and Committee on Academic Programs & Policy. A new U of T budget model in 2007-08 improved the quality and quantity of financial information available to Faculties, creating a more transparent framework for multi-year planning, decision-making and accountability. Faculty of Medicine senior financial administrators contributed substantially to the planning, design features and implementation of the new

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U of T budget model. The resulting improved understanding of the University-wide expenses shared by Faculties and multi-year financial risk has helped the Faculty Budget Committee advise the Dean.

Also of great importance to the Faculty's relationship with central administration is the Dean's additional role as Vice-Provost Relations with Healthcare Institutions. In this capacity, the Dean meets monthly with the Provost and has regular interactions with the University Vice-Presidents of Advancement, Research, and Intergovernmental Affairs, the latter especially on matters relating to the Ministry of Health and Long-Term Care (MOHTLC) and the Ministry of Training, Colleges, and Universities (MTCU) and also those relating to planning, budget, and infrastructure. As Vice-Provost, the Dean has a dotted-line reporting relationship to the President and works closely with him on all matters involving the integration of the academic (education and research) mission with the affiliated hospitals, including joint fundraising.

Recognition of the importance of academic physicians to the academic mission was advanced in 2005 when the GC established the *Policy for Clinical Faculty* and its accompanying *Procedures Manual*. This landmark policy provided thousands of physicians working in the fully-affiliated hospitals and appointed to the Clinical Departments of the Faculty of Medicine with unique recognition of their role through a new type of full-time university appointment that included benefits and rights that were previously limited to full-time campus-based faculty. The *Policy for Clinical Faculty* also articulates the process for university appointment of part-time and adjunct academic physicians (see FA-3/-7 for more detail).

Beyond central administration, integration across the many Faculties and other divisions of U of T has continued to evolve positively. An important example is the successful partnership with the U of T Mississauga in the creation of MAM. The Faculty has joined with all of the Health Science Faculties to create the Council of Health Sciences (CHS), which includes the Deans of the Health Science Faculties and Department Chairs representing health professions programs (e.g., in the Rehabilitation Sciences Sector), the Associate Vice-Provost Health Sciences Policy & Strategy, and the Associate Vice-Provost Health Professions Education. The CHS reports to the Provost, is chaired by a Dean (other than Medicine), and has a standing Committee on Health Sciences Education, chaired by the Associate Vice-Provost Health Professions Education, that focuses on strategic directions (e.g., interprofessional education), policy, and guidelines relevant to all the health disciplines including UME. The CHS was instrumental in the development of the interprofessional curriculum shared across the health professions programs, and also works collaboratively on pipeline initiatives. The Faculty of Medicine continues to enjoy close collaboration with the Faculty of Applied Science & Engineering, for example through, partnered oversight of the Institute of Biomaterials & Biomedical Engineering and the Donnelly Centre for Cellular and Biomedical Research.

The relationships between the University (and Faculty of Medicine) and its affiliated health care institutions are governed by affiliation agreements that delineate a shared academic mission, mutual respect for the autonomy and values of the involved institutions, clarity about jurisdictions, and an emphasis on synergies. The affiliation agreements state that the hospital must prospectively examine and report to the University any possible impact on education of any planned clinical program change. On the governance side, the Dean/Vice-Provost sits on the Boards of seven of the fully-affiliated hospitals, and other members of the decanal team serve on the Boards of other affiliates.

Cooperation and harmonization of purpose between the U of T and the fully-affiliated hospitals/research institutes is facilitated by the work of the Toronto Academic Health Science Network (TAHSN) CEO group and its standing committees (Research, Education, Medical Affairs, and Research Ethics). The TAHSN CEO Committee focuses on the collaborative integration of clinical care, education, and research across the confederation of organizations. Decisions about the joint academic mission are tabled by TAHSN members and implemented through the standing committees where U of T is represented by the Vice-President Research, the Dean of Medicine, and the Deputy Dean and several Vice-Deans of Medicine, and the full affiliates and the major community affiliates are represented by their CEOs and Vice-Presidents. The standing committees meet regularly to manage harmonization of policies and procedures (e.g., research misconduct) and to promote strategic planning and implementation relevant to the academic collective (e.g., Canada Research Chair

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oversight). TAHSN creates value-add for all stakeholders and is highly beneficial to the academic success of the Faculty of Medicine and its education and research programs.

Collaboration between the Faculty of Medicine and the affiliates is also exemplified by the Academy structure. Each UME Academy Director is recruited by and reports jointly to the Academy base hospital Vice-President Education and to the Vice-Dean UME.

The Hospital/University Education Committee (HUEC) launched in 2002, is advisory to the Dean and co-chaired by the Vice-Deans UME and PGME with membership consisting of the affiliated hospital Vice-Presidents Education or equivalent, five Chairs of Clinical Departments, students and residents. HUEC expanded in 2011 to include education leaders of the community affiliates. HUEC has provided effective analysis, policy formulation and communication. HUEC acts as the joint advisory authority to implement policies and emergency procedures, e.g. during the SARS (2003) and H1N1 (2009) epidemics. HUEC has analyzed and reported on UME and PGME expenses, created policy on educational ethics, and established a Faculty-wide teaching awards program.

Successful collaboration with the affiliated hospitals has enabled education and research innovation through the creation of inter-disciplinary centres and institutes (extra-departmental units or EDUs). These include the following centres and institutes: Centre for Faculty Development (at St. Michael's Hospital); Wilson Centre for Research in Education (at the University Health Network); Centre for Patient Safety (at Sunnybrook Health Sciences Centre and The Hospital for Sick Children); Centre for Interprofessional Education (at UHN); Centre for Ambulatory Care Education (at Women's College Hospital); and, Joint Centre for Bioethics (on campus). The financial support for all of these EDUs is shared between the University and the partner hospital(s) in each case, as articulated in five-year agreements between the lead Faculty and hospital CEO(s).

The Faculty of Medicine and the fully-affiliated hospitals collaborate with the MOHTLC, Ontario Medical Association, Council of Ontario Faculties of Medicine, and academic physician leaders on the implementation of a province-wide Alternate Funding Plan (AFP) aimed at supporting the recruitment, maintenance and academic work of our approximately 2400 clinical full-time physicians in academic practice plans. First introduced in 2003, the current AFP Phase III Agreement funding of \$225 million/year across the province – of which the University of Toronto receives \$90 million – has enabled recruitment and retention of high quality academic physicians. Of the \$90 million, \$25 million is designated as remuneration to academic physicians for teaching and research. The Vice-Dean Clinical Affairs represents the Dean on the eight AFP Governance committees that make decisions about the allocation of the AFP funds to clinical full-time academic physicians.

**4. Assess the organizational stability and effectiveness of the medical school administration (dean, dean's staff). Has any central administration turnover affected medical school planning or operations? Are the number and types of medical school administrators (assistant/associate deans, other dean's staff) appropriate for efficient and effective medical school administration? Is departmental leadership stable or are vacancies rapidly replaced without detriment to departmental functioning? If not, note any concerns arising from leadership turnover.**

#### *Stability and evolution*

The Faculty of Medicine seeks to recruit senior academic leaders of the highest quality both from within and outside of U of T. Decanal terms are generally five years in length with the possibility of one renewal. Most decanal positions are held for two terms and details on the terms of each member of the decanal team can be found in the database under IS-11, question (b). Since 2004 a number of position titles have changed to reflect changes in the seniority and content of the relevant portfolios. In 2004, the decanal team consisted of the Dean, a Vice-Dean Research, four Associate Deans for the education portfolios (Undergraduate Medical Education, Postgraduate Medical Education, Continuing Education, and Graduate & Inter-Faculty Affairs), and an Associate Dean for Clinical Affairs. These decanal positions were supported by several directorships, in particular a Director of Admissions & Awards, a Director of Student Affairs, and a Director of Curriculum in the Undergraduate Medical Education (UME) portfolio. Based on the report of the 2004 Task Force on Academic

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Governance in the Faculty of Medicine, an administrative re-organization took place in 2006 that elevated the Admissions & Awards and Student Affairs positions to the level of Associate Dean. The four pre-existing Associate Dean positions became Vice-Deans to preserve hierarchical authority and reflect enhanced responsibilities. A new Associate Dean Research position was added to the portfolio of the Vice-Dean Research & International Relations. In 2007, the Faculty added an Associate Dean Equity & Professionalism (reporting directly to the Dean), an Associate Dean Physician Scientist Training (reporting jointly to the Vice-Dean UME for the MD/PhD program and to the Vice-Dean PGME for the Clinician-Investigator Program), and an Associate Dean Admissions & Evaluation PGME. In 2009, a Deputy Dean (and Associate Vice-Provost Health Professions Education) position was created to serve as an auxiliary to the Dean and Vice-Provost. This expansion of the senior leadership team has created a very stable and effective Faculty administration.

### *Effectiveness*

The current size and makeup of the decanal team were recognized by the self-study to emphasize clear lines of authority up to the Dean, while allowing for an appropriate breadth of contributions to decision-making within each decanal portfolio. The entire decanal team serves on the Dean's Executive Committee, which meets every two weeks. The Dean's Executive Committee includes the senior professional management team, consisting of the Chief Administrative Officer, the Executive Director of Advancement, the Executive Director of the Office of Strategy, Communications and External Relations, the Assistant Dean and Counsel, and the Director of the Office of the Dean (all of whom report to the Dean), as well as the Faculty Comptroller/Chief Financial Officer and the Directors of Information Technology, Human Resources, Facilities Management & Space Planning, and Logistics Services. In addition, the Deputy Dean, Vice-Deans, and Associate Dean Equity & Professionalism also serve on the All Chairs', Basic Science Chairs', and Clinical Science Chairs' Committees, to ensure frequent communication between the Departments and the management portfolios. The Education Vice-Deans also maintain a separate working committee. The regular interaction that occurs through the Dean's Executive Committee and through collaboration on projects within the various portfolios supports both the effective day-to-day functioning and long-range planning of all aspects of the Faculty.

### *Departmental leadership*

Department Chairs are appointed for a five-year term with renewal for a second five-year term upon a successful review; almost all Chairs do seek a second term. Timely recruitment to fill positions avoids interruptions in the leadership of the Departments. Departmental academic reviews are conducted early in the final year of the Chair's term, and reappointments are made promptly following a satisfactory review. Completion of a successful search and appointment announcement of a new Chair occurs on average within six months of the term end of the departing Chair. The details of the Chair's term for each Department can be found in the database under IS-11, question (d). All 28 Chairs and Institute/School Directors are engaged fully in the educational mission of the Faculty, and kept fully informed and involved in education activities including UME at the Chairs' monthly meetings, periodic retreats, and by ad hoc communication with the relevant Vice-Deans and Dean.

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## ***B. Academic environment***

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**5. Evaluate the graduate program(s) in basic sciences and other disciplines, including overall contribution to the missions and goals of the medical school. Describe the mechanisms for reviewing the quality of the graduate program(s) in basic sciences and comment on their effectiveness. Assess whether the graduate programs have an impact (positive or negative) on medical student education. Describe opportunities for interaction between medical and graduate students and the frequency of those interactions.**

### *Quality of graduate programs*

High quality graduate research and health professional education programs contribute to a rich scholarly learning environment for MD students. The Faculty of Medicine's 15 graduate Departments and Institutes oversee degree programs in collaboration with the U of T School of Graduate Studies. In 2010-11 these graduate programs enrolled 871 students in 11 Professional Masters programs, 888 students in Master of Science (MSc) Programs, and 1,173 Doctor of Philosophy (PhD) students, representing an overall increase of 26% since 2004. Among the

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doctoral students are the MD/PhD students currently in the PhD phase of their program. Between 60 and 70% of the MSc and PhD students are located and supervised in the fully-affiliated hospital research institutes. They work in collaboration with over 1,300 postdoctoral research fellows throughout the Faculty's Departments and affiliated hospitals. As graduate students, they generate important health and biomedical knowledge, and as alumni they contribute to "improving health" as future scientists, teachers, and practitioners in the full breadth of health-related disciplines, in keeping with the *mission* of the Faculty of Medicine.

The graduate programs are competitive, with an overall offer-to-application rate of approximately 30-32%. When surveyed in 2007, approximately 98% of graduate students rated the intellectual quality of both faculty and their fellow students as good, very good, or excellent, and 88% gave positive ratings regarding the relationship between faculty and students. Overall, graduate students also rated their research experience positively on a variety of questions. Students receive a minimum annual stipend of \$24,500 for MSc students and \$25,500 for PhD students with a \$3000 top-up for those who win a major competitive award external to the graduate Department. As a testament to the excellence of the graduate student body, 604 or close to 30% of doctoral stream (MSc and PhD) students in 2010-11 held major external competitive awards worth a combined total of almost \$17.2 million; in each Department, 19% to 39% of students held such an award.

#### *Reviews of graduate programs*

The Professional Masters programs in Health Administration, Occupational Therapy, Physical Therapy, and Speech-Language Pathology hold accreditation status with the highest ranking from their respective professional organizations in Canada and the USA. Every doctoral stream graduate program has undergone rigorous peer-review in the last eight years by the Ontario Council on Graduate Studies, an affiliate of the Ontario Council of Universities, and each one has been classified as being of "Good Quality," the highest of four possible appraisal categories. With the new U of T Quality Assurance Process (UTQAP) mandated by the Province and instituted in 2011, responsibility for review of all programs will fall to new internal U of T oversight. The Faculty of Medicine has incorporated doctoral degree program review into its five-year academic review cycle. This demands extensive review by both external peer reviewers and the U of T Academic Board of key performance indicators such as time to degree completion, scholarly productivity, and student evaluation of the academic and research environment. The Faculty of Medicine has centralized the oversight of academic review in the Dean's office, where it is managed by the Deputy Dean in close collaboration with the Office of the Provost, to improve the effectiveness and efficiency of the evaluation of quality and outcomes. Improvements in tracking the career paths of the MSc/PhD graduates is directed by Medicine's *Strategic Plan 2011-16*.

#### *Impact of graduate programs on medical student education*

Medical students interact with graduate students in many meaningful and positive ways. All medical students are required to participate in interprofessional (IPE) core curricular activities with students from many health professional Master's degree programs in all four years. For details about the IPE curriculum, please see the database (IS-12). Top quality doctoral graduate programs are central to the experience of MD/PhD students. In addition, medical students participating in the Comprehensive Research Experience for Medical Students (CREMS) Research Scholar program and some in the CREMS Summer Research Program are supervised by faculty members with appointment in the School of Graduate Studies. Within the research learning environments, medical students work closely with graduate students and postdoctoral fellows and attend seminar series organized within existing graduate programs. (See IS Question 9 below for more details on CREMS.) Another avenue for medical students to engage with graduate students and programs is through the Leadership Education and Development (LEAD) program, an extracurricular opportunity taken during two full summers and part-time during the academic session. Inaugurated in 2011, LEAD represents an innovative collaboration among UME, the Rotman School of Management, the School of Public Policy & Governance, and the Institute of Health Policy Management & Evaluation. LEAD provides mentorship and a customized learning experience designed to develop leadership skills for eight medical students per year. Activities include graduate courses, taken alongside graduate students from the other partner Schools and Institutes. See [www.md.utoronto.ca/program/leadership/lead.htm](http://www.md.utoronto.ca/program/leadership/lead.htm).

## **6. Evaluate the impact of residency training programs and continuing medical education activities on the**

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**education of medical students. Describe any anticipated changes in graduate medical education programs (numbers of residents, shifts in sites used for training) that may affect the education of medical students.**

#### *Postgraduate Medical Education (PGME)*

The PGME portfolio includes 74 residency training programs certified by the Royal College of Physicians and Surgeons of Canada (RCPSC) and four programs certified by the College of Family Physicians of Canada (CFPC). Approximately 50% of U of T medical student graduates enter residency at U of T. In the 2010 CaRMS match, all entry positions filled in the first iteration and in 2011 only two unfilled positions remained out of 377 entry positions. U of T's PGME programs have expanded by over 1000 positions (residents and clinical fellows) since 2004 and continue to grow as mandated by the MOHTLC, in concordance with UME expansion. Family medicine, with 49 new entry positions added between 2006 and 2012 represents the largest increase. The proportion of U of T medical graduates entering family medicine training has increased from 27.7% (n=52) in 2004 to 31.5% (n=69) in 2011. Details about medical student teaching by residents are provided under ED, Question 9.

The ratio of PGME entry positions to graduating medical students at the University of Toronto is 1.5:1, significantly higher than the Ontario ratio of approximately 1.1:1, reflecting the capacity for PGME training in Toronto. PGME trainees are required to experience community-based practice and are assigned to community-affiliated teaching sites in increasing numbers to fulfill the population needs-based model adopted by the Ontario Government. With such a large number of postgraduate learners, the potential exists for competition for clinical exposure between residents and medical students (see MS-2 answer below for details). As indicated in the database (see IS-12, question (a)), postgraduate trainees are involved in medical student education in the majority of clinical settings, and in essentially all clinical clerkship courses.

On all 25 measures on the CGQ related to clinical decision-making and clinical care, evidence-based medicine and communication skills, students graduating from U of T rated their confidence at or above the national average, indicating that overall their clinical exposure is similar to other schools. The UME leadership, Clerkship course directors and site directors, and Clinical Department Chairs jointly monitor individual teaching sites to identify conditions where excessive competition may exist between medical students and PGME trainees for exposure to clinical experience. The newly created clinical clerkship "learning environment survey" and improved logging capabilities provided by the T-Res software will assist with this monitoring (see ED Question 3). If clinical experience limitations at any sites are identified, the site director together with the Clerkship course director and other departmental leaders develop a solution including assignment of students to other sites if necessary.

#### *Continuing Medical Education & Professional Development*

The accredited Continuing Medical Education & Professional Development (CEPD) portfolio in the Faculty of Medicine has articulated CanMEDS-based learning goals and objectives aligned with those of the UME and PGME programs. Medical students, particularly clinical clerks, have access to over 100 one-hour Grand Rounds-type continuing education activities every week in the various affiliated hospitals. The UME program and medical students directly benefit from the improved teaching skills development of clinical faculty who engage in continuing education through their Department, the Center for Faculty Development, or other offerings, as described in the FA section of this report.

**7. Evaluate the research activities of the faculty as a whole, including areas of emphasis and level of commitment, quality, and quantity in the context of the school's missions and goals. Note any limitations that may be affecting the research enterprise.**

Research is a central component of the Faculty's *vision* of "...improving health through innovation..." and its *mission* to "fulfill our social responsibility... through the discovery, application and communication of knowledge." Research in the Faculty spans the basic biomedical sciences, human subject translational and clinical investigation, population and public health, and health policy and economics. Health and biomedical research is increasingly underpinned by the recognition that effective solutions to health challenges and

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innovation demand interdisciplinary synergism. Interdisciplinary research is characteristic of the missions of the Faculty's extra-departmental units (e.g., Banting & Best Diabetes Centre, Centre for Patient Safety, and the Tanz Centre for Research in Neurodegenerative Diseases), and is conducted by faculty who have primary university appointments in traditional Departments. For instance, the Banting & Best Diabetes Centre has attracted a vast number of faculty members engaged in all aspects of the basic or clinical research in diabetes across many Faculty of Medicine Departments (Medicine, Paediatrics, Physiology, Laboratory Medicine & Pathobiology, Family & Community Medicine, and Nutritional Sciences) and hospital research institutes. The Vice-Dean Research & International Relations (RIR) has completed a mapping exercise to identify the location and research focus of all investigators within the Faculty of Medicine, with the results reported by research theme and methodology. This analysis forms the basis for enhanced communication tactics intended to promote further interdisciplinary collaboration by enabling individual students, faculty members, and staff to identify researchers with complementary research skills or methodological backgrounds.

In 2010-11 there were 1,613 active researchers in the Faculty of Medicine who obtained 8,317 research grants and contracts from internal and external sources. Total research funding across the Faculty of Medicine and the affiliated hospital research institutes reached \$792 million, a remarkable increase of 18% from the previous year. U of T holds 34% of all Canada Research Chairs in Health and Biomedical Science across Canada. In 2011, U of T ranked fourth globally in "Clinical Medicine" in the Higher Education Evaluation and Accreditation Council of Taiwan, an analysis of the past ten years of research publications, citations, and journal quality, considered one of the most methodologically-robust rating systems of university-based research in the world.

The Faculty of Medicine Research Office coordinates strategic research activity across the Faculty and its network of fully-affiliated hospitals and their research institutes, including the strategic and operational approach to international collaborations. This Office supports on-campus grant and contract administration, small internal start-up and bridge funding grants, grant development and editing, and initial phases of commercialization. Faculty development opportunities related to research are available to all faculty members, located on- and off-campus. Its activities are described in greater detail in the database under FA-4/11 and FA-8. Integration among the affiliated hospitals/research institutes and the Faculty of Medicine is further coordinated via the TAHSN Research Committee, co-chaired by the Vice-Dean RIR.

The Faculty has undertaken a research-focused strategic planning exercise based on the data collected for the self-study of the 2010 External Faculty Review and the research map completed by the Vice-Dean RIR. A small number of overarching thematic areas that integrate across the research institutes and Departments have been identified (human development, neurosciences and brain health, global health equity, and complex disease – system management) along with the convergence of infrastructure platforms (health and bioinformatics, medical imaging, knowledge translation and commercialization). Explicit key performance deliverables and outcome timelines have also been established. The plan addresses the 2010 Review recommendations to identify Faculty- and TAHSN-wide research priorities. A process to harmonize human subject research operations among the TAHSN partners and more widely across all Ontario universities and academic hospitals is underway. Enhanced knowledge exchange and application through commercialization are important priorities, and involve partnerships among the Faculty, the U of T Research office, and the MaRS Innovation Centre of Excellence for Commercialization of Research.

A significant limitation to research on campus is the variability in the quality of available space that ranges from new buildings that offer state-of-the-art facilities for wet and dry laboratory research to aging infrastructure. The latter description characterizes research space in the MSB and older buildings on the St. George campus. The Faculty is creating a Master Space and Facilities Plan, in collaboration with the Faculty of Applied Science & Engineering that includes a new research building to house the Department of Molecular Genetics and Institute of Biomaterials & Biomedical Engineering.

**8. Assess the adequacy of the resources (equipment, space, graduate students) for research. Evaluate any trends in the amount of intramural support for research and the level of assistance available to faculty members in securing extramural support.**

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Health and biomedical research conducted in the Faculty of Medicine located on the St. George campus and in the affiliated hospital/research institutes span basic sciences, through patient-oriented clinical and rehabilitation sciences research, to health outcomes, policy, and population health research, each requiring specialized infrastructure. External resources obtained through successful competition (e.g., Canada Foundation for Innovation) and fund-raising by the Faculty and affiliated hospital foundations has enabled the Faculty and research institutes to provide appropriate equipment and facilities. In addition, several shared core facilities such as the Centre for Phenogenomics at Mount Sinai Hospital are available to the TAHSN research community, thereby reducing duplication of resources. New structures, including the Donnelly Centre for Cellular and Biomolecular Research (on campus) and the McEwen Centre for Regenerative Medicine and Stem Cells (University Health Network), demonstrate the commitment to expanding research infrastructure.

The Faculty's graduate programs, described in Question 5 above, provide a large number of high quality MSc and PhD students. Since 2004, as a result of significant investment by the Ontario government that has led to new base funding flowed to the University and subsequently to the Faculty of Medicine, MSc and PhD student enrolment has increased by 26%.

The Faculty of Medicine Research Office and the affiliated hospital research institutes provide expert grant writing and editing assistance to faculty for obtaining extramural pilot project funds. Research faculty receive regular, proactive communication about upcoming opportunities and deadlines. Many Departments and research institutes have instituted internal grant review to ensure consistent quality of proposals and research-focused mentorship to develop the skills of junior faculty. The Faculty provides bridge funding up to \$50,000 to researchers who temporarily lose CIHR operating grants. Eligibility for a bridge award is contingent upon the availability of matching funds from the faculty member's Department and graduate student involvement in the project. Research start-up funding is also provided by the Dean to Departments to support new faculty recruits on campus.

**9. Assess the impact of research activities on the education of medical students, including opportunities for medical student participation in research. Are the opportunities for medical students to participate in research sufficient to accommodate the number of interested students?**

The UME program strongly encourages medical student engagement in research both within and outside the core curriculum. Details about the many opportunities available to students are provided in the database, under IS-14. These include the MD/PhD program, the Comprehensive Research Experience for Medical Students (CREMS), a required community health research project in the Determinants of Community Health-2 (DOCH-2) course, research electives in the Clerkship, research opportunities offered outside UME by individual Faculty of Medicine Departments and affiliated hospital research institutes, and international student-organized research electives. On the CGQ in 2011, 81.3% of graduating students reported having participated in research with a faculty member (all-schools average 59.4%), and only 2.3% reported no available opportunity.

Research activities in the Faculty of Medicine positively impact career development choices of our medical students. On the 2011 Canadian Medical Graduate Post-Match Survey Results provided by CaRMS to the University of Toronto, 53% of Toronto graduates identified research opportunities during residency as a "very influential" or "extremely influential" factor in determining their first-choice location, compared to a national average of 38%. On the 2011 CGQ, 49.7% reported an intention to pursue research as part of their career, compared to a national average of 42.3%.

The success of the Faculty's research programs for medical students is reflected in part by their performance at the new Canadian National Medical Student Research Symposium, a competition for top medical student research presentations held annually in Winnipeg, Manitoba each of the last three years. U of T medical students have garnered a total of seven out of 16 prizes in the basic science/translational research categories for MD and MD/PhD students and a total of two out of nine prizes in the clinical science category. In 2011, our students were awarded a third of the awards available at this event.

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The self-study recognizes that our medical students expressed concern in the ISA with regard to sufficient promotion of all research opportunities available to medical students and support for their engagement. In response, the UME program has produced a compilation of research experiences that are offered directly by either Faculty of Medicine Departments, affiliated hospital research institutes, or external organizations. This compilation is maintained by the CREMS office and posted on the CREMS website. Fundraising is underway to seek more awards and stipends for medical students to engage in research.

**10. Describe programmatic and institutional goals for diversity. Evaluate the success of the medical school in achieving its goals for appropriate diversity among its students, faculty, and staff. Are there recruitment and support programs related to the school's diversity goals and, if so, are these effective? Describe how well institutional diversity contributes to the educational environment and prepares students for meeting the health care needs of a diverse society.**

In September 2011, the Faculty of Medicine's Faculty Council unanimously approved a *Diversity Statement* that articulates: a commitment to recruiting and retaining students, faculty, and staff who reflect the diversity of Canadian society; a goal of maintaining an environment free from discrimination; and, a mission to prepare graduates to meet the needs of diverse communities. In addition, the *Statement* pledges the Faculty to providing a welcoming and accommodating environment to all, specifically sexual minorities (i.e., members of the LGBTQ community), visible minorities, and people with disabilities. For the first time in the Faculty of Medicine, three groups have been explicitly identified as priority populations including Indigenous peoples of Canada (First Nations, Inuit, and Métis), people of African ancestry, and the economically disadvantaged.

Although the *Diversity Statement* is new, the general goals that it espouses – i.e. to broaden diversity, to make the Faculty environment more welcoming, particularly to the identified priority populations, and to educate students and prepare them to serve a diverse population – have been continuously pursued in the Faculty. Activities related to each of these three goals are described below.

*Educating students and preparing graduates to serve a diverse population*

The UME Office of Health Professions Student Affairs (OHPSA) has provided longstanding support for community outreach and service-learning activities conducted by students focused on Indigenous and African ancestry communities, and economically disadvantaged communities. Medical student groups working with the LGBTQ community, frail elderly, and children with special needs, among many others, are also highly active. Within the UME curriculum, the DOCH-1 course places great emphasis on student engagement with disadvantaged populations through short service-learning assignments in inner city schools and exposure through participation in home care visits by Community Care Access Centres and other fieldwork with a variety of health agencies. Core course content is being enhanced continually by emphasizing diverse patient profiles, clinical skills instruction such as working with language interpreters, serving LGBTQ patients, and cross-cultural communication. According to the ISA, over 76% of students agree that educational materials presented to them offer an appropriate and non-stereotypical representation of patient diversity. Given the exceptional diversity of Toronto itself, students receive considerable preparation to serve diverse populations as they move through a large number of patient care settings where they interact with a considerable variety of individuals. U of T students report on the CGQ (2011) that they are appropriately trained to care for individuals from another background (90.5% rate of agreement, national average 83.8%), and that their knowledge or opinion was influenced by becoming more aware of the perspectives of individuals from another background (77% rate of agreement, national average 74.8%).

*Nature of the learning and working environment*

Our self-study suggests that although the Faculty and its affiliated hospitals are performing comparatively well, we must strive for improvement. On the 2011 CGQ, 4% of graduating students reported having been subjected to racially or ethnically offensive remarks/names directed at them, a figure that has fluctuated (perhaps due to low response rates in the past) but is consistently lower than the national average. As of 2011, clerkship students now have an additional opportunity to comment on the Faculty's efforts at fostering a welcoming environment via a "learning environment survey" that has been incorporated into all clinical clerkship rotation evaluations.

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A faculty diversity survey conducted in the fall of 2011 found that 81% of respondents consider their work environment to be welcoming of diversity. Across all respondents, only 8% did not consider the environment to be welcoming, but among respondents from the priority groups (as identified on the *Diversity Statement*), the perception of an unwelcoming environment was greater (13-22% depending on the group). The Faculty will respond to this information through the leadership of the Associate Dean Equity & Professionalism and the Faculty's Director of Human Resources, who will conduct focus groups with these minority groups in the spring of 2012 to identify their specific challenges and seek remedies to ensure a welcoming environment for all.

### *Demographics*

Approximately 43% of MD students, 20% of faculty, and 31% of administrative staff self-identify as belonging to a visible minority population (including belonging to an Indigenous group). Although the priority minority groups (African ancestry, Indigenous and economically disadvantaged) identified in the Faculty *Diversity Statement* remain under-represented, the UME program is encouraged by the recent increase in Indigenous students and applicants, described under MS Question 3. This trend correlates with the efforts of UME, in particular those of the Associate Dean Undergraduate Medicine Admissions & Student Finances, to engage with the Indigenous community in making the U of T UME program a realistic and appealing choice for Indigenous students. The new Indigenous Student Application Program, described in greater detail in the MS section of the report and in the database (MS-3), has a stated goal of doubling the number of Indigenous students who apply, are offered admission, and accept their offer to our UME program, within the next five years.

Representation of African-ancestry students in the UME program is lower than expected based on the GTA population proportion. The key community outreach/pipeline program operated by OHPSA, the Summer Mentorship Program (SMP), is specifically designed to attract disadvantaged adolescents of African (and Indigenous) ancestry. The self-study recommends expanded efforts to attract and admit more students of African ancestry, and the OHPSA is developing strategies for a long-term approach to pipeline pathways (see the MS Question 3 for details).

According to the faculty diversity survey, the number of faculty members from the Indigenous population is very low and does not show a statistically significant improvement over time (as determined by each respondent's reported number of years at the U of T). On the other hand, while figures for faculty of African ancestry are also well below the population at large, they do show a marked increase in the last 15 years. A comprehensive proactive outreach and recruitment plan is in place across the University (described in detail in the database), and the expectation is that over time, the demographics of faculty members will diversify as a result.

The first year medical students have been surveyed shortly after entering medical school in both 2010 and 2011 in the Diversity Survey of Entering Medical Students. The same tool was also used in 2012 for Year 3 and 4 students to obtain a complete profile of the student body. Across all four years, 7.3% of respondents self-identified as LGBTQ, which is likely close to the proportion in the general population. Among faculty, the reported rate of 5.2% will serve as a baseline for future comparison. The rate of disability among students was reported as 3.6%, while among faculty it is 3.5%. Again, these figures will serve as baselines for annual monitoring.

Our students report minimal concern about the ethnic diversity of their peers on the ISA, but only 40.5% consider the socioeconomic diversity to be appropriate. An increasing number of economically disadvantaged students are now entering the UME program. In 2007-08, 14.3% of students reported "low parental income" (below \$50,000 per year), while 47.8% reported over \$100,000. By 2011, 20.2% of students were from low parental income families and 24.0% from the over \$100,000 category. This correlates with the increase in funding and financial-aid related recruitment introduced by the UME Office of Student Financial Services over the past few years. For the details, please see the response to MS Question 7.

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## EDUCATIONAL PROGRAM

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### A. Educational objectives

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#### 1. Describe the level of understanding of the school-wide objectives for the educational program among administrators, faculty members, students, and others in the medical education community. Do these objectives serve as effective guides for educational program planning and for student and program evaluation?

The overall objectives of the UME program and those of every course are organized according to the CanMEDS roles set out by the Royal College of Physicians and Surgeons of Canada. The Chairs of Clinical Departments, clinical faculty and residents, and our medical students are very familiar with the CanMEDS roles. The Chairs and faculty of the Basic Science Departments are less regularly exposed to the CanMEDS roles, but have been oriented to them by communication from UME course directors and by the publicizing of the *UME Teacher Handbook*, in which the objectives feature prominently. The Vice-Dean UME explicitly highlighted the CanMEDS framework during Basic Science Chairs' meetings in 2011-12. A significant effort was mounted in 2011-12 to remind all students and faculty of the objectives, including prominently posting them on the UME website, incorporating them as a centrepiece in the new *Teacher and Student Handbooks* and capturing each individual program objective in a one-line summary (Appendix ED-1/1-A.a). The Faculty of Medicine's online newsletter, *MedEmail* has featured the new *UME Teacher Handbook* and included mention of the program objectives. In response to the recent UME survey of teaching faculty, 82% reported being aware that the CanMEDS roles underpin the UME program objectives. We are aiming for 100%.

The CanMEDS framework is a consistent and effective guide for curriculum planning across all competency domains (see ED-1). Following the introduction of the objectives in 2003, gaps were noted in the Manager role objectives, and therefore, an integrated, four-year Manager curriculum was introduced and two faculty members were recruited as co-leads for this role (see Appendix ED-1/1-A.e.4 and response to ED-33.g(iv)). The Collaborator role was bolstered by the creation of an interprofessional education program under the direction of a faculty lead. The progressive enhancement of teaching in ethics and professionalism over the years has successfully realized the Professional role objectives (see ED-23).

The CanMEDS roles serve as the explicit framework for clinical assessment during Clerkship. Eighteen uniform competencies mapped to the CanMEDS roles (except Professional) are used to assess students' performance in every rotation (see Appendices in section ED-26/29.d). The ratings on each of these competencies are translated directly onto students' Medical Student Performance Record (MSPR or "Dean's Letter," see MS-19), and are also used to calculate a numeric clinical performance mark. Professionalism is evaluated via a detailed form listing competencies relevant to all courses in Preclerkship and Clerkship (for details, see MS-31-A question (c) in the database). In the Preclerkship, the CanMEDS roles are assessed as follows: *Professional* - on a separate form in each small-group teaching experience; *Manager* and *Collaborator* - through assignments and examination questions related to designated sessions on these competencies; *Communicator* - by many clinical skills assessments in both Art & Science of Clinical Medicine courses (including oral and written reports, OSCEs); *Medical Expert* - by all written examinations and skills-based assessments; *Scholar* - by the DOCH-2 research project; and, *Advocate* - in assessments related to performance in the DOCH-1 and DOCH-2 coursework.

The UME program objectives also serve as effective guides for program evaluation, as described in Question 18 below and in the database (ED-46, question (c)).

#### 2. Comment on the extent to which school-wide educational objectives are linked to physician competencies expected by the medical profession and the public. Summarize results from any associated

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**outcome measures that demonstrate how well students are being prepared for the next stage of their training.**

The UME program objectives are based on the CanMEDS roles now adopted worldwide as one of the clearest statements of physician competencies expected by the profession and the public. This is the framework used by the RCPSC, and the College of Family Physicians of Canada.

Since 2004, U of T MD students have achieved a passing rate of 96 to 99% on part I and 95 to 97% on Part II of the Medical Council of Canada Qualifying Examinations. In 2011, Toronto graduates averaged fourth in Canada on Part I, and ranked first on Part II in 2010 (most recent available year). In 2011, on the CaRMS match 93.4% received their first choice discipline (compared to the national average of 91.7%) and 66.8% matched to their first choice program *and* discipline (national average of 63.1%). On the 2011 CGQ, 88.2% of graduates agreed or strongly agreed they had acquired the clinical skills required to begin a residency program, in line with the national average. The Faculty also conducted a survey of first- and second-year residents (PGY1s and PGY2s) in Canada who graduated from U of T in 2011 and 2010 respectively. Over 91% of these residents were satisfied or very satisfied that our UME program prepared them well overall to be a capable physician.

**3. Comment on the effectiveness of the system in place to ensure that all students encounter the specified types of patients/clinical conditions needed for the clinical objectives to be met.**

Since 2004, paper-based methods including log-books and encounter cards to monitor attainment of clinical objectives have been replaced with IT applications. After experimentation with custom-built, in-house solutions, the commercial software known as T-Res was chosen in 2010 for logging encounters and procedures in all core clerkship rotations. In 2010-11, a pilot with T-Res was conducted, allowing UME to clarify program and student needs, to iteratively refine the software into a more robust system for our purposes, and to familiarize faculty and students with the new program's capabilities. Through extensive dialogue across all the Clinical Departments and with detailed student user feedback, a system was designed with all the key features to enable students to efficiently and comprehensively document and report on the core clinical experiences needed to meet the requirements in every course. A policy that formalizes the logging and monitoring procedure was adopted by the UME Curriculum Committee in September 2011 (see Appendix ED-2.a.2). The refined system was fully launched at the start of 2011-12 and is described at length in the database answers to ED-2. As of February 2012, an average of 90% of students on every rotation have completed all of their required encounters and procedures (with the remainder able to do so until six weeks after the conclusion of the third year core clerkship rotations). Each course has instituted measures to address any gaps that remain for individual students by the conclusion of the rotation or shortly after. Very active, ongoing monitoring of student completion is occurring in all courses to ensure that the positive results observed to date will continue.

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***B. Structure of the educational program***

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**4. Delineate the mechanisms in place to ensure that the educational program provides a general professional education that prepares students for all career options in medicine. Cite relevant outcomes indicating success in that preparation.**

The UME objectives successfully support the acquisition of competencies relevant to a general professional medical education. All of the objectives of the Preclerkship must be achieved before students can proceed to the Clerkship, including, for example, the Scholar competencies addressed by the DOCH-2 research project and clinical competencies assessed during the ASCM-2 final OSCE. By the conclusion of the program, every student must achieve a suitable level of competency in each of the CanMEDS roles as measured by clerkship rotation clinical and professional evaluations and by the integrated OSCE examination.

To facilitate students' achievement of these objectives, the program is carefully designed using a "spiral" curricular model. Students receive a solid grounding in basic science and population health in the first year,

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framed in a clinical context and accompanied by clinical skills teaching. In second year, clinical aspects of the full spectrum of common and/or life-threatening conditions are presented. In Clerkship, students experience the full spectrum of opportunities to apply fundamental knowledge acquired in Preclerkship, beginning with the required third-year core clerkship rotations in both primary care and multiple specialty settings. In the fourth year, they pursue areas of interest during electives (subject to the AFMC “three disciplines rules” to ensure a sufficient breadth of exposure) and selectives, at least one of which must be in the community. Throughout, they experience clinical care settings ranging from community-based health units to quaternary acute care hospitals. The T-Res logging procedures ensure that all students experience clinical encounters and procedures required to fulfill the UME objectives.

The outcome measures that substantiate the program’s success in preparing students for all career options are summarized in the response to Question 2 above. They include the very high proportion of U of T graduates who pass both parts of the licensing examination and the excellent record of success in the CaRMS matching process. U of T graduates enter the widest possible array of postgraduate training programs. Approximately 30% each year for the last several years have pursued family medicine training, with the remainder divided among specialty training programs.

**5. Evaluate the adequacy of instructional opportunities for students to engage in active learning and independent study. Assess the effectiveness of the program’s efforts to prepare students to engage in self-assessment of their learning needs and to develop other skills to support habits of lifelong learning.**

Students continually engage in active learning and independent study, identifying their own learning needs and articulating answerable questions, by analyzing and synthesizing information, assessing the credibility of information, and sharing information with their peers. Students emerge with well-developed abilities in each of these domains. For example, in the Structure & Function course in first year students share the gross anatomy dissection tasks and teach each other. In Preclerkship, they take part in over 70 problem-based learning sessions during three of the block courses, during which they identify their learning needs in relation to the case at hand in a first session, then search for answers and review their findings at a second session. Examination questions in all of these courses address students’ ability to carry out these tasks. Also in Preclerkship, in DOCH-1, students present their findings from various community-based experiences to each other in small group tutorials, and produce essays that integrate their findings from the whole course. The following year, in DOCH-2, every student designs, implements, analyzes, and presents an independent research project supervised by faculty in a community agency. An informatics curriculum consisting of ten hours of instruction spread over the Preclerkship and Clerkship enhances students’ skills at finding and appraising information.

During the Transition to Clerkship at the start of Year 3, students take part in multiple activities which support acquisition of competency in active learning and independent study, including an innovative simulation activity that develops team-building skills; and, extensive instruction on evidence-based practice, managing information, the use of clinical practice guidelines, and shared decision-making. The students complete three assignments on evidence-based medicine. During the Clerkship rotations that follow, students complete two additional evidence-based medicine assignments, one during Medicine and the other on the Family & Community Medicine rotation. The Transition to Residency (TTR) assessments in the latter half of Year 4 include independent study assignments on the health care system and health equity. During the Portfolio courses students discuss and then write reflections on six different clinical experiences that enhanced their understanding of the CanMEDS roles. The students are assessed during each clerkship rotation on their self-directed learning skills, and the average score in 2010-11 for all students across all rotations was 4.2 where 4 is “exceeds expectations” and 5 is “outstanding.” On the 2011 CGQ, 96% of graduates agreed or strongly agreed that the need to engage in lifelong learning to stay abreast of relevant scientific advances was emphasized in UME.

**6. Evaluate the adequacy of the system for ensuring consistency of educational quality and of student evaluation when students learn at alternative sites and within a course or clerkship.**

Preclerkship course directors compare student ratings of teachers and course quality as well as student grades

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across Academies every year with no evidence of significant differences. In the Clerkship, teaching effectiveness scores, overall student satisfaction across sites, and results on ward evaluations and examinations were compared by all rotations across teaching sites prior to 2011-12, with the exception of Ophthalmology and Surgery (and Surgery did compare data across Academies). As of 2011-12 these two rotations have adopted the same procedures as the others. This is consistent with the *Standards for ensuring the comparability of students' educational experience across sites* (adopted in August 2011 by UMECC, see Appendix ED-8.d). Monitoring of these parameters in all courses is mainly conducted at the conclusion of the academic year, when a sufficiently large sample of observations is available to permit meaningful comparisons across sites, and to identify any significant deviations. Minor differences among sites used in a given course have been detected from time to time, and have been promptly corrected. Close scrutiny of site comparison data will continue in all courses, with particular attention paid to any differences in the results for MAM. The self-study concluded that these practices are sufficient to ensure comparability in these various domains across instructional sites.

## **7. Comments on how well all content areas required for accreditation are addressed in the curriculum. How confident is the educational program leadership that these topics are appropriately addressed?**

The self-study has carefully reviewed the UME curriculum content areas required for accreditation; relevant standards are indicated in parentheses, and details for each are available in the database.

### *Medical content areas and underlying scientific concepts in the curriculum*

The self-study found that the fundamental principles of medicine and its underlying scientific concepts are addressed comprehensively (ED-6/7). Students learn clinically-relevant basic biomedical science content in first year, including gross anatomy, histology, physiology, embryology, and biochemistry; and in both the first and second years, pharmacology, microbiology, immunology, genetics, and pathology are well covered (ED-11). Students have several opportunities to make biomedical observations and interpretations, in the first year (ED-12). The curriculum includes the study of normal organ function in first year and clinical disorders mainly in second year, followed by the application of this knowledge during the discipline-based Clerkship (ED-13). Students acquire skills in differential diagnosis, problem-solving, critical judgment, and formulation of treatment plans as described in the database (ED-6/7 and ED-15). Students have abundant opportunities to learn about all phases of clinical care in both the Preclerkship and Clerkship (ED-13). The multidisciplinary content (diagnostic imaging, emergency medicine, geriatrics, clinical pathology) receive substantial attention in the Preclerkship and the Clerkship (ED-17). Students learn about research via both the DOCH-2 research project and exposure to research findings in other Preclerkship contexts (ED-17A).

### *Behavioural, socioeconomic, and societal content in the curriculum*

The UME curriculum ensures comprehensive exposure to the psychosocial determinants of health, medical consequences of common societal problems, and health promotion, as addressed especially in the DOCH-1 and -2 courses as well as elsewhere (ED-15 and ED-20). All of the major behavioural and socioeconomic subjects in ED-10 receive attention in the Preclerkship and Clerkship. Several specific areas (end-of-life/palliative care, global health, human sexuality, medical humanities, medical jurisprudence and nutrition), in light of results on the CGQ and other feedback from students, are under active review by curricular leads in the program to ensure that these topics are adequately covered. A new undergraduate curricular lead position for global health was created in the fall of 2011, responsible for the expansion of teaching in this subject. Medical humanities teaching is being expanded in various ways as described in the database (ED-10). Human sexuality teaching has been strengthened in 2011-12 with two new sessions in the second year curriculum. End-of-life/palliative care continues to receive extensive coverage throughout the program, and has been strengthened with a session in the new Transition to Residency course in fourth year. The Clerkship Committee will explore further exposure to this topic in the clinical domain. Nutritional teaching in the Preclerkship has been substantially augmented in the last several years; enhancing exposure in the clerkship is being actively reviewed by the Clerkship Committee and a session has been added to the MCC review lectures at the end of Year 4 in April 2012. Medical jurisprudence content is under detailed review by the faculty lead for Ethics & Professionalism with a view to enhancing quality and scope, with two new sessions already added in 2011-12.

*Professionalism, self-awareness, and cultural competence in the curriculum*

Ethics, professionalism, and communication skills development are emphasized in multiple ways throughout the curriculum (ED-23 and ED-19). Student learning and self-awareness about gender and cultural biases, including self-awareness of bias and the development of cultural competence, are addressed in both the Preclerkship and Clerkship (ED-21 and ED-22).

The self-study concluded that the curriculum content in all areas described by accreditation standards is at least satisfactory, and this view is strengthened by our graduates' overall excellent performance on licensing examinations (see response to ED Question 1 above). In addition, graduates' ratings of the quality of instruction in a very wide variety of topics, the adequacy of their exposure, and their clinical skills are generally comparable to the national averages (see the database and the CGQ for details).

*Areas of concern about content noted in the 2004 survey*

Four areas (pharmacology, genetic counselling, nutrition, and palliative care) were noted in the 2004 accreditation survey to require attention. Ratings on the CGQ indicate that teaching is adequate with room for improvement. The percentage who agreed or strongly agreed that genetics teaching in preparation for the Clerkship was helpful stood at 60.6% in 2011 (national average 62%), the helpfulness of pharmacology preparation garnered 68.5% agreement (national average 75%), and the agreement rate for nutrition was 60.3% (national average 54.3%). Education in palliative care was appropriate according to 85% of respondents (national average 76%). Qualitative feedback on the CGQ indicated a widespread desire for more instruction in pharmacology but the students who completed the 2011 CGQ did not experience the first-year Clinical Pharmacology & Therapeutics block launched in 2009-10.

Another recent source of information about program performance in these areas is the survey of current PGY1s and PGY2s who graduated from the UME program at U of T in 2011 and 2010 respectively, conducted in November 2011 with results analyzed in December. According to this survey, preparation for prescribing of medications appears to be fairly satisfactory (62% satisfaction rate). The UME program is improving the pharmacology curriculum by restoring pharmacology teaching in the Transition to Clerkship to eight hours to address practical aspects of the key medication classes students will use in the Clerkship. The Pharmacology thematic lead will create a set of online summaries and pocket cards that cover key aspects of the medications used in each clerkship rotation, and the materials used in all of the pharmacology instruction in the program will be available at a single site on the Portal. According to the survey of recent graduates, only 17% were satisfied with their preparation to prescribe nutritional management and 42% to take part in palliative care management. As these results became available only at the end of 2011, the program's response is still evolving, with some measures described above and also in the response to question 17.

*Response to student concerns*

In the ISA students highlighted concerns about DOCH-1, DOCH-2, and the Surgery clerkship, and a detailed response to these concerns has been shared with students in the Faculty Response to the ISA. Concerns about these courses related largely to their *delivery* rather than the material they cover. In fact, the self-study found that the content addressed by these courses is appropriate, and is associated with very strong results on outcome measures including the MCCQE Part I sub-scores for both surgery and population health.

**8. Assess the balance between inpatient and ambulatory clinical experience and the appropriateness of the teaching sites used for required clinical experiences.**

Ambulatory and inpatient clinical experience during the Clerkship are very well balanced and ensure an adequate exposure to a full spectrum of patients and their illnesses to support the UME program objectives. The Medicine and Surgery rotations are primarily inpatient-based, but have significant ambulatory components. Obstetrics & Gynaecology, Paediatrics, and Psychiatry provide mixed ambulatory and inpatient experiences. Anesthesia is solely inpatient. Several rotations are exclusively or almost exclusively ambulatory: Family & Community Medicine, Emergency Medicine, Otolaryngology, Dermatology, and Ophthalmology. During Preclerkship, all students have a mandatory second-year ambulatory "Family Medicine Longitudinal

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Experience,” consisting of six half-days with a community-based family physician. The CGQ ratings of the balance between inpatient and outpatient experiences for emergency medicine, medicine, obstetrics & gynaecology, and paediatrics were comparable to the national average, and slightly lower for family medicine, psychiatry, and surgery, but in all cases at least 67% of students agreed the balance was appropriate. Furthermore, in the 2011 CGQ, 92.8%, of U of T graduates agreed or strongly agreed that they felt comfortable in caring for patients in an ambulatory setting, with a national average of 92.3%.

Students attend a wide variety of clinical care sites, ranging from community clinics to quaternary-care hospitals and may also choose to participate in rural placements (inpatient and ambulatory) through the provincially-run Rural Ontario Medical Program (ROMP). As of 2010-11, all students are required to complete at least one community placement during Clerkship. Through this multiplicity of placement types, the UME program has demonstrated its strong support for Recommendation VI of the Future of Medical Education in Canada MD project, to “diversify learning contexts.”

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### ***C. Teaching and assessment***

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#### **9. Comment on the adequacy of the supervision of medical students during required clinical experiences. Discuss the effectiveness of efforts to ensure that all individuals who participate in teaching, including resident physicians, graduate students, and volunteer faculty members, are prepared for their responsibilities in medical student teaching and assessment.**

The self-study concluded that student supervision is appropriate. In all Clerkship courses, the ultimate responsibility for student supervision rests with faculty members. Residents are also involved in direct supervision in many cases. Supervision in all the major clerkship rotations is reported by at least 77% of students to be adequate/appropriate on the CGQ and by at least 70% on the ISA, with most courses achieving rates above 80%; the CGQ results are comparable in all cases to the national averages. Questions on adequacy of supervision have been added to the course evaluation forms for all rotations as of 2011-12, to supplement the CGQ data.

The efforts made by the medical school to prepare all types of teacher for their role are robust. Course directors and site directors communicate on a regular basis with teachers in their courses, offering support particularly at the start of the academic year. Teachers also engage in faculty development to upgrade their teaching skills as described in the database under FA-4/11, and both course-specific and more generic teacher training is available. The 2011 UME teaching faculty survey, revealed over 60% participated in formal faculty development in the last five years, including over 80% of those who taught medical students for 20 hours or more per year. The success of faculty development for new courses is evident: 88% of the Portfolio academy scholars and 85% of FMLE preceptors who responded to the survey had attended faculty development. As a mandatory component of their postgraduate program, every resident must complete the PGCORed™ modules, a series of online interactive exercises including “Resident as Learner and Teacher,” which addresses teaching in large and small groups and in clinical settings, as well as effective assessment and feedback. All of the Departments with clerkship rotations of six weeks or more require residents to participate in in-person teacher training beyond their PGCORed experience. Residents who conduct *didactic* teaching are evaluated by students in the same manner as any faculty teachers (i.e. primarily through the online MedSIS system). Beginning in January 2012, clinical clerks are also asked to evaluate the quality of resident teaching in the clinical clerkship rotations via MedSIS as the result of a collaboration between UME and PGME leadership to benefit both set of trainees.

The *UME Teacher Handbook*, produced in October 2011, was distributed to all teachers including residents and other non-faculty instructors, and includes all program and course objectives, assessment procedures, and policies related to all aspects of teaching and supervision. The adequacy of teacher preparation is reflected by the high teaching effectiveness scores of teachers throughout the program as shown on the course forms, and by the high ratings of the quality of faculty teaching on both the CGQ and on the ISA. The one notable exception is Surgery; while ratings of individual teachers are quite high, the ratings of the overall quantity and quality of teaching have been more mixed, and the Department of Surgery is vigorously revitalizing all aspects of its

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Clerkship education program under the stewardship of a new Department Chair and new undergraduate program director/clerkship director.

**10. Evaluate the adequacy of the methods used to assess student attainment of the objectives of the educational program. Comment on the appropriateness of the mix of testing and evaluation methods. Describe the frequency with which students receive formative assessment in addition to summative evaluations. Discuss the timeliness of performance evaluations to students in the preclinical and clinical years.**

The methods used to assess individual student attainment of the educational program objectives are summarized in the database in the table in the answer to ED-1-A. Every learning objective is mapped to at least one outcome measure and most have two or more metrics that are used to monitor student achievement. Assessments related to many of the objectives rely on multiple independent evaluations using the ward/clinical clerkship rotation evaluation form that is completed for all 11 clerkship rotations and electives, as well as the similar Transition to Residency Clinical Performance evaluation form (completed for all three selectives). At the time of the 2010 follow-up report to CACMS, evaluation measures for four objectives (all in the Scholar role) were incomplete. Since then, adequate measures for these have been introduced so that now student achievement of all 49 objectives (including sub-sections) has been confirmed.

Throughout the program, a deliberate mix of testing and evaluation methods is used for the summative assessment of specific competencies. Clinical skills are assessed by OSCE examinations: one in each of Years 1 and 2, and four in Year 3, including two integrated OSCEs. Specific clinical skills assessments are used in both ASCM-1 and ASCM-2, and an in-course clinical skills examination in each of the clerkship rotations of six weeks' duration or longer. Knowledge is assessed through a number of written examinations that incorporate a mixture of multiple-choice, key-feature, and short-answer formats that test both knowledge and application. Attitudes and professional behaviours are assessed using standard forms in both the Preclerkship and Clerkship that draw upon the observations of the student's supervisors or small-group tutors. Communication, reflection, and analytical skills are assessed through written and oral assignments in a number of courses in the Preclerkship and Clerkship, particularly in the Portfolio course. The reliability and validity of each course's evaluation methods are rigorously reviewed approximately every five to seven years by the Examination & Student Assessment Committee (ESAC), which verifies the use of sound methodologies and the consistency of student results across different sites. The self-study recommends that ESAC now assess each course every three years to more closely monitor outcomes.

As detailed in the database (ED-31), students have abundant opportunities for formative assessment. In Preclerkship, all courses with written examinations provide sample question sets from previous examinations. The Art & Science of Clinical Medicine core tutors give informal assessments of clinical skills and narrative feedback on assignments, and students are assisted in their preparations for the final OSCE through sample stations and a formative (practice) OSCE close to the end of the year. In Clerkship, every rotation of two weeks' duration or longer now provides formal feedback at approximately the mid-point. If deficiencies in clinical competence are present, the student and preceptor institute a plan to remedy the deficits before the end of the rotation. Each course director monitors the completion of mid-rotation feedback, and in 2010-11 all courses achieved a greater than 95% adherence. On the 2011 CGQ, student agreement with the adequacy of feedback was 77% or higher – and close to or above the national average – for all rotations except Surgery (agreement of 57%), with a similar pattern on the Independent Student Analysis (ISA). As a priority in 2011-12, Surgery has implemented clinical clerk feedback and the success of this intervention is tracked continuously by the Clerkship Director.

The timeliness of providing students with feedback about their performance in both Preclerkship and Clerkship is identified as an area for improvement by the self-study, which concurs with the recommendation of the ISA “that clinical evaluations... be reported in a timely fashion” (Item H). Accordingly, the Undergraduate Medical Education Curriculum Committee (UMECC) in April 2011 adopted the *Standards for timely completion of student assessments and release of marks*. This requires that assessment “components” (e.g., examination scores,



evaluation forms, etc.) must be reported to students within four weeks of the completion of the assessment and final grades within six weeks of the conclusion of the course. A new feature has been instituted in the online MedSIS system to generate automated e-mails to course directors one week prior to the six-week deadline if they have not yet released course grades. Teachers also receive periodic reminders through the same system to complete their student assessments in a timely manner. The Dean has directly instructed all Clinical Department Chairs that the timely reporting of grades to students is an absolute requirement. Since adoption of the policy and reinforcement with the course directors and Department Chairs, compliance with the six-week requirement at the time of writing (February 2012) in 2011-12 has been 100%.

**11. Describe the system for ensuring that students have acquired the core clinical skills specified in the school's educational program objectives. Evaluate the frequency with which students are observed and receive feedback on their clinical skills. Are there any limitations in the school's ability to ensure that the clinical skills of all students are appropriately assessed?**

Clinical skills teaching receives the highest priority throughout the UME program. Students have 65 half-day ASCM sessions devoted to this topic over the two years of Preclerkship, including multiple assessment modalities to ensure students' clinical skills are adequate prior to entry into Clerkship. Students are observed performing clinical skills in a mid-year examination in both years, they complete written and oral case reports, and in second year keep a log of all core physical examination manoeuvres verified by the students' preceptors. The OSCE examinations at the end of both first year and second year must be successfully completed to pass each course and move to the next year of the program. Students who fail either of these OSCEs are required to complete a program of supervised review by the course director during the summer between the second and third year followed by a satisfactory formal assessment in order to achieve credit in the course and advance to the next level of the program. UME operates an auxiliary program called SCORE (Clinical Skill Competency Observation, Reflection, and Evaluation), which provides formal assessment, extra help, and customized remediation to students whose clinical skills are below expectations. Students are referred to the program by either an ASCM course director or the Board of Examiners, depending on the severity of their weakness. The SCORE program also provides a refresher course to students re-entering the program after a leave (including all MD/PhD students).

All Clerkship rotations of six weeks' duration or more include an assessment of clinical skills as a major assessment tool, for instance an OSCE (Psychiatry), an oral examination (Medicine, Surgery, Obstetrics & Gynaecology), a series of clinical evaluation exercises or "mini-CEX" (Family & Community Medicine), or an Observed History & Physical Exam (Paediatrics). In Family & Community Medicine, Obstetrics & Gynaecology, Paediatrics and Psychiatry, students must pass these assessments to receive credit in the course; in Medicine and Surgery, they must pass the combined average of the oral and written examinations. As a major feature of the new Clerkship structure introduced in 2010-11, two integrated OSCEs (iOSCEs) are now conducted at the mid-point and end of third year, covering history-taking, physical examination, and communication skills such as counselling, and addressing both rotation-specific competencies and the integration of skills from multiple rotations. The integrated OSCEs must be passed to graduate from the program. A remedial iOSCE is conducted in February of Year 4 for students who have performed unsatisfactorily on the first two.

Students' clinical skills are also assessed in each of the core clerkship rotations, electives, and Transition to Residency selectives using a clinical skills performance evaluation form. This enables consistent evaluation of history-taking, physical examination, diagnostic test interpretation, problem formulation, communication, and the quality of written and oral reports, among other skills, using precise rotation-specific descriptors.

On the CGQ, over 75% of students – and a greater percentage than the national average – report having been observed taking a history and performing a physical/mental status examination in Family & Community Medicine, Medicine, Paediatrics, and Psychiatry. The other rotations captured on the CGQ (Emergency Medicine, Obstetrics & Gynaecology, and Surgery) have lower frequencies. In response, in 2011-12, these three

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rotations are instituting observation of each student performing clinical skills at least once. Evidence that this is occurring is being monitored through specific questions on the course evaluation form.

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#### ***D. Curriculum management***

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**12. Assess the adequacy of the system for managing the curriculum and ensuring that it is coherent and coordinated. Do the curriculum as a whole and its component parts undergo regular, systematic review? Describe the procedures in place to identify and rectify any problems in the curriculum as a whole and individual courses and clerkships. Evaluate the effectiveness of these procedures, and provide specific illustrative examples. Provide evidence that the school monitors the content covered in the curriculum to ensure that all desired content is covered, that gaps or unwanted redundancies do not occur, and that there is appropriate horizontal and vertical integration among content areas.**

##### *System for managing the curriculum*

The system of committees that manages the curriculum (described in the response to Question 14 below) was assessed by the self-study to be adequate for the management of the curriculum, particularly given the central role now played by the UME Curriculum Evaluation Committee (UMECEC).

##### *System for ensuring curricular coherence and integration*

The curriculum has been designed on the platform of CanMEDS objectives in a “spiral” model that is well-understood by the program leaders and articulated to students throughout their program. This model informs decision-making about changes in the curriculum on both large and small scales. Preclerkship prepares students for Clerkship with a blend of clinically relevant basic science and clinical content from the beginning of first year. The “spiral” approach involves revisiting topics with increasing sophistication from first to second year and then again as students move into the Clerkship. The “continuity courses” in Preclerkship (DOCH and ASCM) provide a half-day every week of consistent learning about population health and clinical skills. This continuity curriculum complements didactic learning about health and disease in the “block” courses. In first year, the three block courses address body structure (gross and microscopic), and then sequentially cover the physiology, biochemistry and pharmacology of each body system. In second year, one integrated block course covers the mechanisms, manifestations, and management of essentially all common and life-threatening disorders in preparation for Clerkship.

The Clerkship is framed by the Transition to Clerkship and Transition to Residency courses, designed to consolidate students’ competencies for their next phase of learning. In 2010-11, the third-year Clerkship was converted to 11 core clinical rotations as part of the major restructuring of the Clerkship. These rotations provide a comprehensive foundation for students to engage in more self-directed, career-focused training in fourth year, during which students complete 12 weeks of electives and ten weeks of selectives. Classroom learning concludes in Year 4 with higher level analytical assignments drawing on students’ clinical experiences, advanced topics to prepare them for more independent patient care, and a student-driven overview of the entire curriculum in the lead up to the MCCQE-I licensing examination. Across the entire curriculum, coherence is reinforced through the formal curricular integration themes that appear repeatedly during Preclerkship and Clerkship, and include: the Manager role; ethics and professionalism; interprofessional education/Collaborator role; pharmacology; and medical imaging. These will be joined in 2012-13 by a new overarching global health theme.

##### *Regular and systematic review of the curriculum and its component parts*

The self-study identified the role of the UME Curriculum Evaluation Committee (UMECEC) as critical to all aspects of curriculum review, and judged that its responsibilities ensure rigorous, regular quality assurance assessment of every element of the curriculum. (Details on UMECEC are in the database under ED-33, -35 and -37, and its terms of reference are found in Appendix ED-33.f.1.)

##### *Procedures to identify and rectify any problems in the curriculum*

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Curricular leaders pay particular attention to the feedback from students obtained through various channels as described in response to Question 18 below. In addition, teachers in each course offer feedback to their course director, site directors, and other members of the course committee. Collaborative problem-solving of curriculum issues is expected to occur between course directors and Preclerkship/Clerkship Directors. While most issues reside in a single course, the involvement of the Preclerkship or Clerkship Director ensures that best practices will be shared with relevant input (e.g. from Academy Directors) and that central monitoring is instituted as necessary.

#### *Effectiveness of these procedures, with specific illustrative examples*

The self-study concluded that current procedures to identify curriculum problems are effective. Students and others have multiple avenues to report concerns with prompt response from UME administration in proportion to the scope and complexity of the issue. One example was the launch of central core seminars in Psychiatry in 2010-11 to address concerns students had expressed about variable seminar quality at multiple teaching sites. In Clerkship, key-feature questions were introduced in the written examinations in multiple rotations in part to address program concerns with student performance on the problem-solving portion of the MCCQE-I. Across the entire curriculum, a decrease in graduates choosing and matching to family medicine residencies in the early-to-mid 2000s prompted the creation of a Generalism Task Force. Multiple outcomes of the Task Force recommendations have translated into a substantially higher profile for family medicine throughout the program, including a six-week clerkship rotation (previously four weeks), the FMLE course in Year 2, and increased teaching by family doctors throughout the Preclerkship.

#### *Monitoring content for gaps and redundancies*

The procedures for monitoring the content are detailed in the database, under ED-37, question (b). As one of its first projects, the UMECEC established standards for minimal levels of coverage for each of the UME program objectives, CLEO objectives, LCME “hot topics” (many of the content areas identified under ED-10 in the database), and Medical Council of Canada clinical presentations. UMECEC then performed a review based on these criteria using the custom-built Curriculum Map (CMAP – <http://cmap.med.utoronto.ca>), together with a review of the required encounters and procedures in the Clerkship and of mandatory Clerkship readings and other self-study materials provided to students. UMECEC found that all 120 areas met the minimum standards that had been established with the exception of four clinical presentations, i.e., burns, hirsutism/virilisation, impotence/erectile dysfunction, and movement disorders. Detailed review of these resulted in the conclusion that the latter three were in fact very well addressed in Preclerkship, and their coverage in Clerkship is now being reviewed, while the topic of burns needed more coverage in Preclerkship and this has been arranged. (See ED- in the Database for details.)

UMECEC will operate on a multi-year cycle of continuous quality improvement to examine student exposure to a broad spectrum of content along both traditional lines (such as cancer, child health, and cardiovascular disorders) and cross-cutting issues (such as cultural competence and Indigenous health). It also monitors for potential inappropriate redundancy by noting any MCC clinical presentation that has more than ten sessions. In 2011, the committee identified several topics that reached this level of coverage and carefully reviewed each of them. In all of these cases, UMECEC concluded that there was no need for modification, because these are common disorders presented with a spiral trajectory evolving appropriately from introductory exposure in Preclerkship to a more applied perspective in Clerkship.

#### *Horizontal and vertical integration*

The UMECEC and the Preclerkship and Clerkship Committees monitor the content of the program for appropriate degrees of horizontal and vertical integration. For instance, the teaching in ASCM-1 of the physical examination of the cardiovascular, respiratory, neurologic and eye examinations is aligned with the teaching about the physiology of these systems during STF and then BRB. Each session of bioethics in second year is likewise coordinated with relevant clinical content presented in the units on obstetrics, paediatrics, surgery (informed consent), and end-of-life care (euthanasia and assisted suicide). The instruction on critical appraisal of the biomedical literature in DOCH-2 is carefully integrated with the introduction to evidence-based medicine in MMMD. The creation of the MMMD course from two former Year 2 block courses was an exercise of explicit

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horizontal and vertical integration. The horizontal integration of several topics previously distributed over the second-year program eliminated unnecessary redundancies, freeing up time to increase the vertical integration of the program through the introduction of teaching on dermatological, ophthalmological, and otolaryngological topics. This change reduced the number of didactic teaching hours in these short clerkship rotations, enabling more clinical exposure.

In the Clerkship, careful monitoring of content produced several instances of horizontal integration. In support of clinical logging requirements, all of the clerkship course directors worked together with the Deputy Clerkship Director to create a comprehensive set of mandatory core encounters and procedures that students must experience during the clerkship rotations with special attention paid to commonalities between courses. The iOSCEs in Clerkship serve as a “horizontal integrating” function, as they evaluate competencies combined from different rotations. The Paediatrics and Family & Community Medicine (FCM) course directors worked together to create child-health-focused seminars in the first week of the FCM rotation, including discussion of when referral to a paediatrician is appropriate. Further similar initiatives are being planned by the Clerkship course directors.

Vertical integration is evident in multiple contexts, and is a consequence of the close collaboration between course directors across the program. As an example, clinical skills are taught during the closely integrated ASCM courses in first and second year, and are further elaborated in the Clerkship (e.g., advanced communication skills during Psychiatry, pelvic examination instruction in Family & Community Medicine). In 2011, a new faculty lead position for clinical skills development was created to oversee and further refine integration in this area. Another example of vertical integration is community health teaching in which basic concepts are learned in first-year DOCH-1, applied in the DOCH-2 research project (on the impact of a determinant of health in chosen context), further advanced during the Transition to Clerkship sessions on outbreak control and poverty, and then concluded with advanced instruction on the health care system and health equity during Transition to Residency.

### **13. Does the chief academic officer have sufficient resources and authority to ensure that the educational program can achieve institutional goals and learning objectives?**

The chief academic officer is the Vice-Dean UME reporting directly to the Dean, and his portfolio holds full authority, responsibility and sufficient resources for the MD program, within the governance framework described in IS Question 2. Management authority of the UME portfolios of Curriculum, Health Professions Student Affairs, Admissions & Awards, Student Financial Services, and Faculty Registrar rests with the Vice-Dean UME. Clear reporting structures support the Vice-Dean’s authority. For example in the Curriculum portfolio the course directors and thematic leads report to the Preclerkship or Clerkship Directors who report to the Vice Dean UME (see the UME organization chart). The Vice-Dean UME has full authority and fiduciary responsibility for a dedicated budget that adequately resources all program needs. (See the ER section of this report for further details.) The excellent central administrative staff has grown by approximately two-thirds since 2004, to support enrolment expansion, distribution to MAM and other new initiatives. Many more administrative staff are located in individual University Departments, Academies, and hospitals, who support dispersed program delivery. Many of these positions are wholly or partially funded by UME, while others represent commitment made by the program’s partners to the education mission. Financial and administrative resources to meet the requirements of the UME program have always been sufficient.

The Preclerkship and Clerkship Directors, Academy Directors, course directors, theme coordinators, faculty leads, and other directors and faculty in leadership positions have protected time funded in each case by the UME budget and/or by their Department’s budget, to ensure that they can properly fulfill their roles in curriculum management. The new Office of Evaluations comprises three PhD professional educators, a Director of UME Evaluations, an Evaluations Project Coordinator/Data Analyst, and a programmer all directly involved in their various capacities in program, course, and teacher review.

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Sufficient numbers of teaching faculty are readily recruited for appropriate delivery of all aspects of the curriculum, including at the community-affiliated sites. The Vice-Dean UME works collaboratively with the Department Chairs to ensure an appropriate faculty complement for all of the program's activities. Adequate compensation plans are in place to fund teaching activities for clinical faculty at both the fully-affiliated and community-affiliated sites. (See the IS and FA sections of this report for details.) The UME portfolio supports faculty development, most notably a comprehensive program in Mississauga led by a UME-funded faculty member (see database, answer to FA-4/11).

The physical infrastructure and technological resources for the UME program are described in the ER sections of the database and this report, and include many recent enhancements. The program's current needs are fully supported by the existing infrastructure, and in the past, emerging needs have always been satisfactorily addressed, most recently with the creation of dedicated medical student space close to the Medical Sciences Building. Hospitals also provide substantial resources for teaching as stipulated in the affiliation agreements, and the new affiliation template explicitly cites the requirements of accreditation standard ER-7, including the statement that the hospital recognizes the University's primacy with regard to decisions made about its teaching programs (see Appendix ER-9/10.a.11).

**14. Assess the effectiveness of curriculum planning in the medical education program. Describe efforts to ensure that there is adequate participation in planning and that resources needed to implement the plans will be available.**

The UMECC meets monthly to oversee the design and management of the curriculum; for membership see the database, ED-33, question (c). Examples of major issues deliberated in the last three years by UMECC include the introduction of a two-week dedicated pharmacology block into first year, the conversion of the second-year block courses into a single integrated course (Mechanisms, Manifestations & Management of Disease or MMMD), the restructuring of the Clerkship into a 48-week core clinical period in third year followed by a more student-determined elective-selective-consolidation structure in fourth year, the creation of the Portfolio courses in third and fourth year, and the adoption of new policies specifying maximum course hours in the Preclerkship. The UMECC delegates the detailed planning and implementation of the program to the Preclerkship and Clerkship Committees (chaired by the Preclerkship and Clerkship Directors, respectively). Membership includes respective course directors and student representatives, and the Vice-Dean sits *ex officio*. The Preclerkship and Clerkship Directors sit on each other's committees, facilitating vertical integration. Theme coordinators, the Director of UME Evaluations, the Faculty Registrar, and the Academy Directors sit on these two committees. Most of the curriculum change examples identified above originated at the level of the Preclerkship or Clerkship Committee.

Each course is planned and implemented by a course committee, chaired by the course director, with membership comprising one or two student representatives, administrative staff, and the faculty members with primary responsibility for delivering the course. Three policies adopted in the spring and summer of 2011 formally codify the roles of course directors and the various committees in integrated curriculum management. The *Statement on curricular cooperation, coordination, and integration*, the *Guidelines and protocol for making curricular change*, and the *Statement on course committees in UME* define the involvement of course committees, the Preclerkship and Clerkship Committees, and the UMECC in deliberating on and approving changes in all aspects of the curriculum, and underscore the importance of consultation and collaboration in the management of the program (See Appendices ED-1/1-A.e.2, ED-34, ED-33.f).

The self-study concluded that this committee structure enables valuable discussion among stakeholders. Curriculum planning can begin at any level from senior leaders to students. An example was the student advocacy for greater coverage of LGBTQ health care issues. This was discussed at the Preclerkship Committee and at course committees, and then additional sessions were added and some existing content modified. When *major* curriculum changes are considered and endorsed by the UMECC, the Vice-Dean will bring the issue to the Faculty Council Education Committee (FCEC) and then to Faculty Council as necessary for discussion and approval. Recent examples include the adoption of the new Credit/No Credit grade transcription practice (2009),

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the consolidation of the second-year block courses into MMMD (2010), and the reorganization of the Clerkship (2010).

The resources required to implement curricular plans are summarized in the response to Question 13. As noted, the Vice-Dean and UMECC are able to access all necessary resources, including financial, required for curricular change. UMECC and the other relevant committees carefully monitor the delivery of the curriculum to ensure that no constraints related to resources (such as IT support) arise.

**15. How does the curriculum committee ensure that students have sufficient time for learning? Evaluate the educational workload and the balance between education and service in the clinical years. Assess the effectiveness of the mechanisms used to monitor student duty hours. Do students receive sufficient formal teaching during their clinical clerkships?**

The ISA identified workload issues as a key area for improvement and recommended “That the total number of hours of instruction be formally limited or capped at both Preclerkship and Clerkship levels.” This feedback coincided with a clear recognition by the UME leadership that such limits were needed to enable greater flexibility and innovation in the curriculum. In response, the UMECC and the UME Executive Committee developed the *Standards for course hours and student self-study time in the Preclerkship* and the *Standards for call duty and student workload in the Clerkship* respectively (see Appendix ED-38.b and ED-38.c). These standards set out in detail the Preclerkship limits, and in Clerkship, the standards set maximum permitted call frequency, consecutive hours on call, and hours of required activities when students are not on call. Adherence to the standards in the Preclerkship is monitored by the Preclerkship Director, and in 2011-12, every day and every week is compliant with the stated limits. Considerable unscheduled time is available to students. As an example, over the 36 weeks of Year 1 in 2011-12, students have an average of 24 scheduled hours per week between 9:00 a.m. and 5:00 p.m. and 10.5 explicitly unscheduled hours per week, plus 1 hour for lunch each day. This represents an increase in free time of two hours per week compared to 2006-07. There are 43 unscheduled half-days available to students for whatever activities they wish to pursue, including self-study or clinical shadowing. All lectures are video- and audio-captured enabling students to view them later at their convenience, if they wish to attend other activities such as clinical shadowing. During 2011-12, reports at the Preclerkship Committee from student representatives have elaborated on where precisely they perceive the deficit in free time in the Preclerkship and this has been localized to the Structure and Function block in first year. Accordingly, the Preclerkship Director is coordinating an effort to further reduce the amount of scheduled time in this period for 2012-13.

In Clerkship, the new *Standards for call duty and student workload in the Clerkship* (Appendix ED-38.c) limit the maximum scheduled call frequency over each rotation to one night in four, and the consecutive hours on call to 26, identical to the Ontario resident agreement. In all courses, students are not required to be in the hospital for more than ten hours on average on days when they are neither on call nor post-call. Violations of these workload limits are reported rarely by student representatives at either the Clerkship Committee or individual course committees. However the program remains vigilant about any identified student concerns related to workload, and when such concerns are noted, the appropriate Clinical Department chair(s) and clerkship directors are promptly notified to review the concern and correct the problem. For more precise monitoring, as of 2011-12, questions about adherence to workload limits have been added to the Clerkship course evaluation forms. On the CGQ, at least 74% of graduates agreed or strongly agreed that “The stated number of hours per week and frequency of on-call was not exceeded” for every rotation, in each case comparable to the national average. The ISA reported that “Clerkship students were very satisfied with the call requirements and faculty/resident support during all rotations. Over 80% of students in each rotation agreed or strongly agreed that the call requirements were reasonable, and over 80% agreed or strongly agreed that they felt adequately supported... Students in most rotations reported spending an average of 8 or fewer hours per day in hospital. At the clerkship stage, the focus should be on learning rather than service, and these numbers are in line with an appropriate breakdown of learning hours.” Also on the ISA, student agreement with the statement “There was an appropriate distribution of time allocated for academic teaching, clinical workload and time to study” was at least 70% in all rotations except for Obstetrics & Gynaecology and Surgery. The self-study recommends close

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monitoring of workload issues by the course committees of these two rotations using the course evaluation forms and feedback from student representatives at their meetings, and prompt intervention if students continue to report an excessive workload.

In Clerkship, formal teaching in every rotation amounts to an average of at least four hours per week, equivalent to a half-day, in the form of central lectures, local (site-based) seminars, and/or teaching rounds. This figure represents 10% of the five-day week, an amount that the self-study judges to be sufficient and appropriate; it is comparable to the “half-day back” model often used in postgraduate training. The adequacy of this quantity of didactic teaching is supported by the excellent performance of clinical clerks on in-course examinations and ultimately on the licensing exams.

**16. For schools that operate geographically separate campuses, evaluate the effectiveness of mechanisms to ensure that educational quality, curricular content, and student services are consistent across sites. In order to determine the comparability of teaching and student assessment across campuses, review patterns of grades and indicators of student performance and satisfaction.**

The only geographically separate campus of the UME program is the Mississauga Academy of Medicine (MAM), which opened in August 2011 and is located in the city of Mississauga, 30 kilometres from the downtown Toronto (St. George) campus. The LCME and CACMS have been kept informed of the plans for MAM throughout the six-year planning period through all requested reports, and in the spring of 2010, the LCME and CACMS conducted an on-site consultation visit. MAM is a joint project of the Faculty of Medicine, UTM, and the newly-merged community-affiliate, The Credit Valley Hospital & Trillium Health Centre. The entry class at MAM consists of 54 students (out of 259), and the program will be rolled out sequentially over the next three years so that, beginning in 2014, there will be a full complement of 216 students enrolled in four years of classes there. The admissions process is described in the database under MS-3.

An important element of the preparation for the opening of the MAM was the gradual increase in teaching activities over the last four years, during which existing St. George campus students completed portions of their MD studies at the Mississauga hospitals in increasing numbers, beginning with a single group in ASCM-1 in 2007-08, and growing over the years to include multiple ASCM-1 and -2 groups, some Preclerkship seminars, and several clerkship rotations. By 2010-11, the year prior to opening, 42 students were placed at ASCM-1 in Mississauga, representing close to a full complement. This approach enabled a slow growth in the recruitment and faculty development of teachers and the development of administrative support structures, under the supervision of a Mississauga-based Academy Director, so that the opening of the full Academy in August 2011 did not ultimately represent such a sudden change as might have been the case. The MAM Academy Director is a full member of all the senior UME committees (the UMECC, UME Executive Committee, Preclerkship and Clerkship Committees, and Academy Directors’ Committee), and the operations manager for MAM is also a member of the UME Executive Committee. There is a complete roster of administrative support staff. MAM faculty leads are in place to provide local coordination for ASCM-1, ASCM-2, BRB, and all clerkship courses, and recruitment efforts are underway to hire similar leads for MNU, MMD, and DOCH.

The consistent operating principle for the Medical Academies is that students must experience the same curriculum regardless of site; the same objectives, the same session outlines, the same assessment procedures, and the same level of teacher preparation. State-of-the art, large-scale videoconferencing installations at both MAM and the MSB on the St. George campus enable full student participation at both sites. Free shuttle buses carry the first-year MAM students to and from the St. George campus during the 10-week gross anatomy portion of Structure & Function, to ensure that they are able to attend all their sessions comfortably and on time.

The experiences and outcomes of the students based in Mississauga for select courses over the past four years were carefully scrutinized to ensure equal education quality with other sites. Since 2007-08, four cohorts of students have completed a year of ASCM-1 in Mississauga, and three cohorts for ASCM-2. Compared to students from other Academies, no statistically significant differences in student grades between students completing the courses in Mississauga compared to the rest of the class were found. Likewise, teaching effectiveness scores for Mississauga-based teachers were similar to other teachers. Ratings on average of

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clerkship rotations in Emergency Medicine, Family & Community Medicine and Paediatrics have been either higher than the average ratings elsewhere or within 0.1 on a 5-point scale. In the first 2 years that ASCM-1 was offered in Mississauga, only one student per year asked not to return for ASCM-2, and all first-year students who took ASCM-1 in Mississauga in 2010-11 elected to stay there for ASCM-2 in 2011-12.

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### ***E. Evaluation of program effectiveness***

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#### **17. Describe the evidence indicating that institutional objectives are being achieved by enrolled students. Discuss how information about enrolled students and graduates is used to evaluate and improve the medical education program.**

##### *Evidence indicating that institutional objectives are being achieved*

The 49 UME program objectives based on CanMEDS roles are mapped to specific outcomes from various assessments during medical school and on licensing examinations. Students are deemed to achieve these objectives if they perform satisfactorily on each of these measures. The program's effectiveness with regard to each objective is evaluated according to whether (a) the vast majority of students perform satisfactorily on those *internal* assessments and (b) the mean score of U of T graduates exceeds the national average on relevant aspects of the MCC Qualifying Examinations Parts I and II, that are also mapped to the objectives as an external measure of quality.

In April 2010, the UME program reported to LCME/CACMS on the results of a detailed appraisal of U of T student performance in relation to these performance measures for each objective. Four broad categories of results were identified: (i) the objectives were being satisfactorily achieved, which was the status of 41 objectives; (ii) the results were mixed or "indeterminate" (i.e. some measures were satisfactory, and others not), which was noted for four objectives; (iii) evaluation measures were not yet in place; (iv) follow-up by UMECC was required due to a concern. UMECEC has determined now, based on the evidence of the most recent iterations of the MCCQE Part I (in 2011) and Part II (in 2010), that the performance targets for the four "indeterminate" objectives are being met, and all of the measures for the other 41 objectives with previously identified performance measures remain satisfactory. For the remaining four objectives, adequate performance measures have been identified, and students have demonstrated satisfactory performance on three of them. The final one, which relates to understanding the importance of being a mentor to less experienced members of the health care team, already has several supporting measures in place and awaits complete assessment via the Year 4 Portfolio course launched in 2011-12. Together with other measures listed in the table in the database (see ED-1/1-A and Appendix ED-46.c), sufficient evidence of satisfactory competency in this role is expected to be available by the end of Year 4 in April, 2012. Therefore, there is (or for one objective, expected to be) good evidence of achievement of all program objectives by the time of graduation.

Students' self-assessment at the time of graduation provides insight about achievement of program objectives. On the CGQ, the rate of agreement with the statement "I am confident that I have developed the clinical skills required to begin a residency program" over the last 5 years has ranged from 86.3 to 95.8%. Their confidence in performing 29 different clinical tasks (see CGQ 2011 questions 11, 12, and 16), address 23 of the 49 UME program objectives. The rates of agreement of graduates were in general very high, with average ratings comparable (within 0.2) to the national average; furthermore, the rates of agreement for almost all of the tasks were above 80% and all stood at 69% or higher, with the exception of those related to using telemedicine and requesting an autopsy. The self-study recommends the school improve instruction in how to request an autopsy, and curriculum will be added on this topic in the Transition to Clerkship Course. Telemedicine is not a required major learning objective in UME.

##### *How information about enrolled students and graduates is used to evaluate and improve the medical education program*

Student performance at all stages in the program is carefully scrutinized by course directors and the Preclerkship and Clerkship Directors, using multiple assessment modalities as described in the course forms and database.

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When deficits are identified, feedback to the appropriate committees elicits change. For instance, in recent years it was noted by UMECC that students in the Clerkship were arriving with insufficient preparation in ophthalmology, otolaryngology, and dermatology. When the Year 2 block-course teaching was revised, the opportunity was taken to introduce structured content in these three disciplines into the new Preclerkship course MMMD resulting also in more clinical time in these short rotations. Further, when Clerkship site directors reported a deficit in students' abilities to generate problem lists and management plans, explicit instruction and examination questions on these topics were added to the second-year curriculum.

Data from the CGQ is analyzed annually and the results are provided to the Vice-Dean UME, the UME Curriculum Committee, the Preclerkship and Clerkship Committees, the course directors and thematic leads to inform them of areas requiring improvement, as perceived by the graduating class. For example, in past years, feedback from graduates about their lack of satisfaction with their pharmacology instruction led to considerable expansion and improvement of Preclerkship teaching in this area. More recently, feedback indicating insufficient observation by faculty while taking a history and performing a physical examination in certain clinical clerkships led the Clerkship Director to instruct those course directors to implement required observations of students performing these clinical skills. (See ED Question 11) Consistently high ratings about gross anatomy teaching and its relevance have supported the preservation of its current time allotment and methods of instruction.

In addition to the general scrutiny of licensing examination performance described above, the performance of graduates in specific areas of concern is also monitored by the UMECEC. For example, over the last several years, less than satisfactory scores on the paediatric subset of the MCCQE Part I prompted the Paediatrics course director and course committee to enhance the program by instituting the mandatory use of CLIPP (Computer-assisted Learning in Pediatrics Program) cases and expanding the course syllabus to include a series of core review articles and review notes. The results on the paediatrics sub-score have subsequently improved. In addition, data supplied in 2011 for the first time by the MCC indicate how U of T graduates performed on multiple content areas compared to the national average. This permits identification of content areas that may require increased attention, particularly if the observed patterns of concern persist for more than 1 year.

Recommended by the self-study, UME has launched an annual initiative to survey our recent graduates about their self-assessment of their preparation for residency. This project is supported by the new *Strategic Academic Plan* to monitor our graduates more comprehensively and use the resulting data for program improvement. In late 2011, the first such survey was launched for current PGY1s and PGY2s (i.e., the classes of 2010 and 2011), and achieved a response rate of 36% from both classes. These graduates were surveyed about 38 clinical competencies divided among the CanMEDS roles and aligned with the specific program objectives. As reported in Question 2 above, over 91% of these residents were satisfied or very satisfied that our UME program prepared them well to be a capable physician. There were 10 areas where the satisfaction rate was below 70% (see database for details) and three areas below 50%: prescribing nutritional management (17%); taking part in palliative care management (40%); and, performing technical procedures (38%). The UMECC and its sub-committees are now studying the detailed results to address these areas.

### **18. Discuss how student evaluations of their courses, clerkship rotations and teachers, are used to improve the medical education program.**

The custom-designed online application of the Medical Student Information System (MedSIS) allows the UME program to gather evaluation data on all didactic and practical activities (lectures, seminars, PBL cases, clinical experiences, agency visits) in all courses and clerkship rotations, and on the courses and clerkship rotations and for individual teachers. These evaluations are carefully scrutinized by course directors and serves as one of the primary inputs into each course's annual report (see ED-35 in the database). These reports are reviewed by the Preclerkship or Clerkship Director, and subsequently by the UMECEC, the Vice-Dean and the UMECC, thereby forming the basis for constructive change. In addition, low teaching effectiveness ratings from students prompt a range of interventions by course directors, from faculty development to replacement of the teacher, depending on the severity and intractability of the deficits. Student feedback on individual teaching events is reviewed on an

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ongoing basis to ensure that topics appear to be receiving appropriate coverage and to determine if adjustments are required (e.g., updating of a PBL case, addition of a lecture to provide background information, or deletion of a lecture if redundant).

Summary judgments by students about courses are used to make important improvements. In 2011, in response to student feedback regarding the Structure & Function course, some elements in the course were consolidated to a more modular structure so that students could focus on anatomy first and subsequently on physiology. In ASCM-2, students indicated a desire for more observation of their clinical skills, which resulted in a requirement that core tutors regularly observe students performing skills, followed by documentation and feedback to students. In 2008, in response to second-year students' concern about the amount of time they were spending in transit to Sunnybrook Health Sciences Centre up to four times per week, a change in the scheduling of PBL tutorials was instituted, along with the relocation of seminars for Sunnybrook-based students to the MSB. These two measures in combination reduced the number of travel days by over 50%. As another example, when students reported that the initial nine weeks of the MMMD course in 2010-11 lacked a logical flow in content, the course directors reordered the sequence of topics into a coherent theme structure organized by weeks. The restructuring of the Clerkship schedule first implemented in 2010-11 responded to student feedback that recommended all entry-level specialties occur prior to the CARMS interview period, and also permitted greater equity of exposure to electives as students had requested. The ongoing evolution of the procedure for logging required encounters and procedures (described in detail above) was facilitated by iterative student feedback. Also based on student feedback, the Emergency Medicine course committee instituted a policy enabling adequate pre-examination study time (no emergency shifts the day before the examination) and adequate time to transition to the next rotation (by keeping the last weekend of the rotation free). In Paediatrics, in response to requests from students for a ready reference to assist them with patient care, the course committee created a very well-received "Peds On The Go" handbook.

For the last three years, a survey of third-year students was initiated to seek their opinions about how well the Preclerkship prepared them for the Clerkship (see Appendices ED-46.b.1-2). The results have shown that students generally viewed their Preclerkship preparation positively, but identified certain deficits. As a result, the Preclerkship Committee acted upon several areas, including medical imaging (addressed partly through the introduction of medical imaging residents teaching in gross anatomy laboratories) and procedural skills (bolstered through an increased teacher to student ratio in the practical session on airway management in second year and more technical skills teaching in the Transition to Clerkship).

Evaluative information is also obtained from elected student representatives on the UMECC, Preclerkship and Clerkship Committees, and course committees, as well as during monthly "class presidents' lunch" meetings attended by the Dean, Vice-Dean UME, and the Associate Deans. The students are encouraged to bring forward any concerns and suggestions, often derived from surveys of their classmates. Their ideas are carefully considered and regularly elicit an active response. Aside from elected representatives, all students are encouraged to share their feedback. All program leaders maintain an open-door policy, and as a proactive means of obtaining input, each month the Dean, Vice-Dean, and other senior faculty hold an evening "fireside" chat with a selection of students chosen at random. These fora all provide opportunities for students to voice their opinions on all UME issues.

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## II. MEDICAL STUDENTS

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### A. Admissions and selection

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**1. Critically review the process of recruitment and selection of medical students, and evaluate the results of that process. Is the size of the applicant pool appropriate for the established class size, both in terms of**

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**number and quality? How are the medical education program's selection criteria validated in the context of its mission and other mandates?**

The UME program operationalizes the *mission* of the Faculty of Medicine beginning with its admissions process, which prioritizes demonstrated, and potential for, leadership; community engagement and service; and academic achievement, including research. Students are recruited into the UME program through an application and selection process that takes into consideration both academic and non-academic attributes. The program does not favour one educational background over another, and therefore the course prerequisites are minimal (two full credit equivalents in the life sciences and one full credit equivalent in the humanities, social sciences, or languages). Approximately one-third of applicants enter the program with a graduate degree, but there is no quota for graduate status. Strong academic credentials are required, including good MCAT scores and a high GPA, and the average for accepted applicants is well above the minimum standards set by the Admissions Committee. There are over 11 applicants for every seat in the first-year class, and the acceptance-of-offer rate of 80% is the highest in Ontario and one of the highest in Canada. For the five admissions positions in the MD/PhD program each year (discussed in the database under IS-14, question (b)), there have been typically 40 to 50 applications a year, growing to 60 in 2011. To merit an offer of admission, applicants to the MD/PhD program must be accepted by both the MD and special MD/PhD admissions committees. Given these results, the self-study determined that the applicant pool is both amply large and of sufficient quality for the regular MD and the MD/PhD programs.

The emphasis on strong academic ability is balanced by careful consideration of applicants' non-academic characteristics, as described in the database under MS-3. Academic and non-academic "scores" from the file review are weighted at 60% academic and 40% non-academic, and the file review as a whole is weighted at 80% versus 20% for the interview. The Associate Dean Undergraduate Admissions & Student Finances has launched a critical examination of current admissions practices, with several research studies in 2011-12 aimed at better understanding and improving the process, as detailed in the database. The self-study was very supportive of this process, and recommended enhancements to the terms of reference of the Admissions Committee to clarify their responsibilities for regular reviews. These new terms of reference were adopted in January 2012.

Since 2004, over 99.5% of admitted students have graduated from the program, and almost 97% have done so within the regular four-year period. In the most recent CaRMS match, two-thirds of our students matched to their first choice of discipline and program, the fourth-highest rate in the country, and second-highest among English-speaking schools. Students display an interest in a wide variety of specialties at the time of graduation, including family medicine, to which 30% or more have matched in recent years. Research is another important focus for our graduates, with 50% expressing an intention to participate in research during their career on the 2011 CGQ, compared to 42% nationally. Among our MD/PhD graduates, approximately two thirds have gone on to work as physician-scientists since the program began, on par with major programs in the United States.

**2. Evaluate the number of students of all types (medical students, residents, visiting medical students, graduate students in basic sciences, etc.) in relation to the constellation of resources available for teaching (e.g., number of faculty members, space, clinical facilities, patients, educational resources, student services, etc.).**

The number of medical students admitted each year has grown from 198 in 2004 to 259 in 2011. Postgraduate numbers increased at a greater pace than undergraduate, posting a 46% growth since 2004. As noted in the IS Question 6 above, the ratio of incoming PGY-1s to graduating MD students in Toronto is now 1.5:1, well above the provincial average. Graduate student numbers have increased by over 26% since 2004, including a 43% increase in professional master's degree students. Visiting medical students are not accepted at the U of T, except for elective experiences of no more than four weeks for international students and eight weeks for Canadian medical students. International visiting students were significantly reduced from between 550 and 700 per year between 2007 and 2009 to just over 300 per year to ensure adequate elective training opportunities for U of T medical students and students from other Canadian schools.

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Resources for education have also expanded. The large network of community affiliates is increasingly used for core undergraduate teaching, which protects against overcrowding at the full affiliates and offers greater exposure to primary and generalist care teaching and learning. The 14 affiliates responsible for clinical clerk training have a combined annual admissions total of over 317,000, an annual outpatient visit total of over 6.87 million, and an annual emergency department visit total of over 983,000. These represent abundant clinical resources for undergraduate medical training.

Faculty numbers have also increased substantially, especially in the community. Full-time clinical faculty numbers increased by 29% since 2004, while all other categories (clinical part-time and adjunct, and non-clinical part-time, adjunct, and status-only) have grown by 60%, including 589 new community-based clinical faculty appointed in 2011. Despite the significant clinical and faculty resources, Clerkship course directors have identified learner competition and overcrowding in a few specific settings; specifically Obstetrics & Gynaecology and Surgery at specific sites and/or on particular services. This finding is echoed by the ISA, where both Surgery and Obstetrics & Gynaecology were rated somewhat lower on meaningful involvement of students in patient care (rate of agreement of 42-57% for Surgery, and 64-75% for Obstetrics & Gynaecology, while all other courses had a rating of 80% or higher). The CGQ results highlight the same shortcomings in Surgery, but not for Obstetrics & Gynaecology. The narrative results of the last two years of the CGQ corroborate the findings pertaining to the size of the clinical teams and possible competition among learners for clinical exposure. As of 2011-12, new sites have been added in Obstetrics & Gynaecology to add capacity, and the volume of medical students on Surgery at any given time is now lower than it was in 2010-11 since in the new Clerkship curriculum Surgery has gone from two core clerkships of a total of 11 weeks in the old structure to one core clerkship of eight weeks. All Clerkship course directors are now actively monitoring the impact of learner volume on the student experience through the new learning environment survey and via student representatives on their course committees; shortcomings in any particular site will be identified and student experience adjusted to ensure adequate exposure.

Administrative and infrastructure resources have expanded to meet the needs of the growing student and faculty populations. As noted in ED Question 13, since 2004 UME central staffing increased by approximately two-thirds, including a full staff complement located at the UTM campus in support of MAM. This increase does not include the additional growth in staff numbers at hospital sites (including the Academies) and within the University Departments that contribute to the clinical clerkships. In particular, a substantial investment in professional counselling staffing in the Office of Health Professions Student Affairs has greatly increased UME's capacity to meet students' needs and support their well-being; from no professional counsellors in 2004, two career counsellors (1.6 FTE), three personal counsellors (2.0 FTE), and one learning skills counsellor (1.0 FTE) are now in place. The Office of Financial Services has two staff dedicated to financial services counselling.

Major new capital projects that directly support medical education were completed at St. Michael's Hospital and Mount Sinai Hospital. The \$37-million Terrence Donnelly Health Sciences Complex opened in 2011 to house MAM. Smaller projects were completed to increase the amount and quality of educational space at a number of the other affiliated hospitals (including Sunnybrook Health Sciences Centre) and in the MSB and in a nearby building housing the new dedicated medical student study space that opened in January 2012.

The self-study found that while the learner population increased significantly in the past eight years, concomitant growth in teaching sites, faculty, administrative staff, and learning space continues to satisfy the requirements of the educational programs. When an inadequacy is detected, steps are taken to remedy the situation as quickly as possible.

### **3. Describe the school's successes in broadening diversity among medical school applicants. How well are the school's programs to enhance the diversity of the medical school applicant pool functioning? How effective are the school's efforts to track program graduates?**

By law, the University of Toronto cannot request diversity data as part of the recruitment process, with the exception of members of Indigenous groups. Consequently, it is challenging to measure the diversity of the

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applicant pool itself. Voluntary surveys of admitted students indicate that the UME program has a broadly diverse class, with approximately 55-60% being Caucasian/white, significantly lower than the national average of 72%. In the ISA, students of all years report a high level of agreement (76% or higher) that their class is suitably diverse in terms of ethnicity, and likewise for gender (90% or higher) and religious background (79% or higher).

However, there are recognized gaps with regard to particular priority groups (Indigenous students, students of African ancestry, and those from economically disadvantaged backgrounds). UME is taking steps to increase the likelihood that applicants from these populations will apply to the program and, if offered a seat, will accept it. The number of Indigenous applicants to U of T Medicine (as self-identified on OMSAS) has ranged over the years from approximately four to eight, but increased to a high of 11 in 2011. In the 2011-12 entering class, two self-identified Indigenous students were offered and accepted admission. On the first-year student diversity survey conducted in October 2011, a total of five students indicated they were of indigenous backgrounds (2.5%). The percentage of students of African ancestry in UME has varied considerably over the past six years according to the CGQ, ranging between zero and 4.6%, the latter being on par with the national (2006 census) average of 4.1%, but lower than the Toronto proportion of 8.4%. (For further details, see IS-16 in the database.)

In 2011, a new Indigenous Student Application Program (ISAP) was approved by Faculty Council, and was launched immediately to be available to applicants seeking entry in the fall of 2012 (See database under MS-3). The ISAP will underscore the culturally safe and welcoming atmosphere of the UME program, and its stated goal is to double the number of Indigenous applicants, the number of offers made to Indigenous applicants, and the number of acceptances from Indigenous applicants within five years (by entering class 2017-18). ISAP is the centrepiece of a broader recent initiative in UME led by the Associate Dean Undergraduate Medicine Admissions & Student Finances, to engage with the Indigenous community. Other elements of this initiative include the Summer Mentorship pipeline programs (described below), the development of a new UME Faculty Lead position for Indigenous Peoples' Health Education, support and mentorship for Indigenous students provided by upper-year Indigenous students and faculty associated with the Faculty of Medicine and/or the U of T First Nations House and Aboriginal Studies Program, institutional support for medical student participation in the Indigenous Physicians Association of Canada, and ongoing consultation with the Indigenous community at the U of T and across the city. The collaboration undertaken by the Associate Dean has already led to improvements, judging from the increase in self-declared Indigenous applicants in 2011 and the number of admitted students.

The growing prioritization of Indigenous students concords well with the Summer Mentorship Program (SMP), a pipeline program of the Office of Health Professions Student Affairs (OHPSA) that began in 1994. The SMP brings together local high school students of African and Indigenous ancestry to take part in a four-week experience on the U of T campus where they learn about health science professions and research. This program was originally conceived in a community outreach framework rather than specifically as a pipeline program, and hence the participants were not formally tracked. A survey of all 395 SMP graduates conducted in 2010-11 (response rate of 16%) and through other contacts, the OHPSA has determined at least 20 graduates have gone on to medical school, and a further at least 27 others have gone on to professional training in other health professions (see database for details). Measures were instituted in 2010-11 to ensure regular tracking and communication with SMP graduates to better inform decision-making around this important pipeline program in future. The Office of Health Professions Student Affairs is now embarking on a more longitudinal approach to pipeline strategies, so that interested participants in SMP will continue to have contact and opportunities with UME through the remainder of their high school studies and into post-secondary education. For example, one of the three faculty leads for the pipeline programs is starting an "Evening" version of morning report, with interested graduates of the SMP, offering a case-based discussion approximately every two months. In addition, a SMP Facebook page was created and a SMP alumni group is underway. The self-study strongly endorsed all these strategic directions.

UME is also concerned about under-representation of students from economically-disadvantaged backgrounds. This concern is shared by the student body, of whom only a minority in each year agreed that their class is

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suitably diverse in this regard, according to the ISA. Agreement as to whether the class reflects suitable economic diversity increases steadily from fourth year to first year, suggesting that the level of socioeconomic diversity has been improving. This perception is supported by various data, including reported parental income, as described in IS Question 10 above.

Socioeconomic diversity across ethnic lines is the focus of three other community outreach/pipeline programs: the needs-based scholarship program of the Medicine Youth Summer Program, a science immersion experience for high school students; Kids Science, an initiative of The Hospital for Sick Children (HSC); and the mentoring/tutoring branch of the Community Affairs programs of the Medical Society in partnership with the OHPSA. These programs have not previously focused on tracking participants, but the directors of all of them are working together in collaboration with the Associate Dean Undergraduate Medicine Admissions & Student Finances to strengthen each initiative and its long-term impact.

The self-study also noted heavy concentration on programs targeting high school students, and recommended engaging more with students from disadvantaged populations who have managed to enter University but whose backgrounds make it less likely that they will pursue postgraduate training in medicine without support programs aimed at outreach and recruitment.

**4. Evaluate whether the acceptance of transfer students or visiting students in the school's affiliated teaching hospitals affects the educational program of regular students (i.e., in the context of competition with the school's own medical students for available resources, patients, educational venues, etc.).**

The U of T UME program does not accept any transfer students, nor does it accept visiting students for core rotations. Only visiting students participating in appropriately registered Clerkship electives are accepted. Visiting students from schools outside Canada are only able to register for electives taking place between January to June of each year, and since 2009-10, their numbers have been capped at approximately 300 per year, for a maximum of four weeks per elective. Visiting students from Canadian schools are growing, and reached over 1,600 in 2010-11. The resources described under MS Question 2 above are judged to be adequate to accommodate this additional volume.

Measures are in place to ensure that the acceptance of visiting elective students does not interfere with the educational program of our own students, as described in the database (MS-12). The Self-Study Task Force did note the existence of student concerns about their ability to secure elective positions due to perceived competition from visiting students. The Director of Undergraduate Electives, the Electives Office, and the Electives Committee (which includes student representation) are carefully monitoring this situation, and the Director personally and promptly investigates any individual student's report of such a situation. At this time, the self-study is confident that suitable measures and appropriate support are in place to ensure that U of T UME students have adequate and timely access to electives in Toronto.

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***B. Student services***

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**5. Comment on the levels of student attrition and academic difficulty in relation to the medical education program's admission requirements, academic counselling efforts, and remediation programs. Evaluate the efficacy of the program's system for early identification and remediation of students in academic difficulty. Describe the counselling and remediation systems that are in place, and assess their effectiveness.**

Student attrition is low in the UME program, as indicated in the database under MS-18. On the very rare occasion that a student withdraws or is dismissed, no particular predictive attribute at admission has been recognized. The two students who in the last eight years were ultimately dismissed on academic or professional grounds received educational and personal support on multiple occasions to address their performance weaknesses, prior to the Faculty taking this decision.

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Approximately 2% of the total student population undergoes formal remediation annually in clinical skills, multiple choice examinations/foundational science knowledge, professionalism, or other areas. When individual students demonstrate significant weakness, the Associate Dean HPSA and/or the Vice-Dean UME may review their application file on a case-by-case basis to help inform their handling of the situation. From several such informal reviews over the last few years, no consistent predictors of subsequent difficulty were found. The Associate Dean, Undergraduate Medicine Admissions & Student Finance is embarking on a more formal process of regular analysis of admissions variables and subsequent performance in the program.

Early identification of students in academic difficulty occurs through ongoing monitoring of student performance, based primarily on assessments during each Preclerkship course and mid-rotation feedback in the Clerkship (for ongoing clinical performance). All students who experience academic difficulty meet with the course director, and are offered academic and personal support through the OHPSA. All students at risk of failing a course also meet with the Preclerkship or Clerkship Director. Academic counselling is provided, both content-specific (generally by the course director or other teacher) and learning skills advice (generally by the professional learning skills counsellor in the OHPSA). Assessment for learning disabilities or other neuropsychological conditions (through central University services on the St. George and U of T Mississauga campuses) is arranged as needed. The CGQ results indicate that students are content with the academic counselling available to them. In 2011, less than 10% were dissatisfied or very dissatisfied with this service, (24.3% of students had no opinion), equal to the national average.

Specific remediation practices vary from course to course depending on the particular area of weakness. They may include, for example, extra study, tutoring sessions, written work, and/or clinical time, always concluded with some form of assessment. Remediation is mandated by the Board of Examiners (BOE, the “promotions committee” of Faculty Council that has responsibility for determining the standing of every MD student) after hearing advice from the course director and/or from the Preclerkship or Clerkship Director. Remedial programs are typically supervised by the course director. In most cases, remediation is accomplished in either the summertime (for students with difficulty in the Preclerkship), or during elective time (for students with difficulty in Clerkship). In more extreme cases, the BOE may require a student to repeat the entire course in a subsequent year or to repeat the entire year.

In addition to formal remediation, UME also follows a practice of “extra work” whereby a student who is judged to be in a borderline range in a course may be assigned additional work to boost their skills or knowledge to ensure that they have satisfied the requirements of the course. Extra work is assigned at the discretion of a course director and with input from the Preclerkship/Clerkship Committee and/or the course committee, and may include reassessment. If performance remains unsatisfactory, remediation may be recommended to the Board of Examiners. Although remediation is a serious course of action, it is ultimately a learning experience for a student in academic difficulty serving as a form of early intervention before more critical steps (such as a repeated year) must be taken.

The Faculty Registrar reviewed all students in academic difficulty who were presented to the Board of Examiners (BOE) in the ten-year period from 2001-02 to 2010-11. There were 103 students who were required to do remediation. As noted above, two of them were dismissed on academic or professional grounds. There were 75 who after completing remediation had no further significant academic difficulty. The remaining 26 had one or two additional instances of difficulty, but they either completed the program or are still in the program and expected to do so. (For details, see the MS-18(e) in the database). The self-study concluded that these observations constitute evidence of a successful program of identification of students in difficulty and provision of appropriate assistance.

**6. In the context of data from the student independent analysis and data from the most recent AAMC Canadian Graduation Questionnaire, evaluate the effectiveness of the systems in place for career counselling, residency preparation, and the selection of elective courses.**

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Student feedback on career counselling and residency preparation is mixed. The ISA reports *disagreement* rates with the adequacy and accessibility of career counselling of 22.7% in Year 2; 20.0% in Year 3; and 21.7% in Year 4, which were considered by the self-study to be higher than desirable. On the CGQ in 2011, the *dissatisfaction* rate with career preference assessment activities was 18%. On the 2011 CaRMS post-match survey, 18% of U of T respondents indicated that they wanted more career counselling (lower than the national average of 25%), but 48% preferred better access to information about job opportunities, a figure somewhat higher than the national average of 35%. On the same survey, approximately 85% of U of T graduating students reported feeling very well or well prepared to select their first choice discipline by the rank order deadline. No U of T respondents indicated that they were not at all prepared, and fewer than 5% felt inadequately prepared. On the survey of recent (PGY-1 and PGY-2) graduates described in the ED section of the report, only 8% of respondents were *dissatisfied* with how the program prepared them to choose a career, and only 15% were *dissatisfied* with how it prepared them to apply for residency.

The Associate Dean Health Professions Student Affairs has taken several steps to address continuing student concern around career preparation (also see Question 2 above). Since the last accreditation, efforts to support career exploration, career counselling, and residency preparation have expanded significantly as described in the database (MS-19). In 2010-11, 27% of students had one or more career counselling appointments (for a total of 425 appointments). Beginning in 2011-12, the OHPSA is phasing in a program of annual career counselling appointments for all students, starting with third and fourth year students, all of whom are being assigned an appointment this academic year. These appointments are not strictly mandatory, but students are strongly encouraged to attend. Follow-up is made with Year 4 students who decline an offer to attend a mock CaRMS interview. OHPSA programs are supplemented by Academy-based support such as additional one-on-one career-focused appointments and mock CaRMS interviews.

Outside of individual appointments, a number of group sessions are offered every year (see table under MS-19 in the database). On the strength of recommendations from the ISA and the self-study process, the OHPSA has worked with course leads to integrate career information and exploration into the curriculum, including discipline-specific lunch-time sessions during the second-year MMMD course that coincide with the topics of study for that week. The OHPSA now participates in all career-related Manager Role sessions throughout the program. In addition, as recommended by the self-study, the Associate Dean is developing means to provide students with reliable career information directly from faculty mentors. Furthermore, many Clinical Departments have identified dedicated faculty to provide individualized career mentorship and also support for related student interest groups in their discipline. The Vice-Dean UME has met individually with each Clinical Department Chair to assist with and give suggestions for new organizational frameworks for career mentoring where it is not already in place. It is expected that these new initiatives will help address the gaps in preparedness identified by the sources noted at the beginning of this response.

The self-study additionally recommended that the UME program explore a greater role for postgraduate programs in informing students about their options, now introduced increasingly into regular career presentations organized by the OHPSA. One best practice model is provided by the Department of Paediatrics, which organizes informal lunch-hour sessions throughout the year conducted by the Chief Paediatrics Resident for any interested clerks rotating through the hospital at the time (including electives students). This model is also supported by the CaRMS post-match survey, which found that 40% of students preferred information from residents as preparation for choosing a discipline and career path.

Selection of electives is supported by the Electives Office. The Director, who is a faculty member, conducts two large-group sessions, and both she and the Electives Officer are also available to meet one-on-one with all third-year students during the autumn and early winter, to provide them with an opportunity to discuss their Clerkship and academic experiences to date, in order to inform their electives and career plans. On the 2011 CGQ, 32.3% of students reported being dissatisfied or very dissatisfied with guidance when choosing electives, a figure that was of concern to the self-study, although it noted that this is similar to the national average of 30.9%. The recent graduate (PGY-1 and PGY-2) survey found that 20% of respondents were dissatisfied with how well prepared they were to choose electives. In response, the Office of Electives is being reorganized to provide

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augmented administrative support and to increase capacity for individual counselling meetings to be held with all students prior to the elective selection deadline.

In addition to formal electives, the Director of Undergraduate Medical Electives has spearheaded a program of Enriching Educational Experiences (EEE) to connect students (primarily in the Preclerkship) with faculty who are available for informal clinical preceptorships. Students are expected to log EEE activities and are also encouraged to record reflections about each experience to serve as a personal, private reference to inform their career decision-making process. The CaRMS post-match survey reveals that 58% of graduating students from the U of T felt they would have benefited from more electives (60.5% nationally). The EEE program helps address this gap by providing a means for students to undertake a similar form of career exploration essentially from the beginning of medical school.

**7. Evaluate the level of tuition and fees in relation to the amount of graduates' accumulated debt and to the level of financial aid needed and available. Describe the efforts in place to minimize medical student indebtedness and comment on the effectiveness of these efforts. Describe the adequacy and availability of financial education and debt counselling programs.**

Tuition for 2011-12 is \$18,977, and the total payable is \$20,413 with mandatory incidental fees. These figures are on par with the other Ontario medical schools (see Appendix MS-24.a). As noted in the introduction, on the recommendation of the Dean, the University has limited tuition increases to between 2 and 4% per year since 2006-07, below the permitted maximum of 5%. The increases themselves do directly benefit financial aid programs for medical students: 30% of the first 2% increase each year and 100% of the amount in excess of 2% is flowed to the Faculty of Medicine to be disbursed as financial aid to UME students. These monies in combination with funds generated to date by the highly successful, \$15-million *Access to Excellence* advancement campaign have enabled UME to establish the most generous financial aid program in Ontario. Over 70% of students receive financial aid, and all students eligible for government loans also receive funds from the Faculty.

The sources of assistance available to students are numerous, and consist of a blend of Faculty, government, and external (Ontario Medical Association) funds, the majority of which are non-repayable grants and stipends. (For details, please see MS-24 in the database.) They include: the provincial financial assistance plan (Ontario Student Assistance Program valued at up to \$360 per week of school, with the repayable portion capped at \$32,850); the Ontario Student Opportunity Grant Program (which converts approximately another third of the student's loan to a non-repayable grant); a \$9,000 fourth-year clinical clerk stipend funded by the province and administered by the Ontario Medical Association; additional government grants created in 2009-10 providing up to \$2500 per year to low- and middle-income students; the Faculty of Medicine Grants Program (which provide funding equivalent to 45% of a student's unmet financial need, after OSAP); the innovative Faculty of Medicine Enhanced Bursary Program for high-needs students (the majority of whom receive assistance equal to or greater than tuition, amounting to over \$500,000 in aid each year); and, new Faculty of Medicine MD Program Admissions Bursaries of \$50,000 for six incoming students per year, instituted in 2010-11. In total, non-repayable financial assistance from the Faculty of Medicine alone has increased by more than 50% in the last 8 years, and now amounts to \$6,288 per student receiving aid, on top of aid funded by the government and other sources. Close to 57% of students in 2010-11 (over 80% of those who receive assistance) received funding equal to or in excess of 50% of tuition, including 17% (25% of those receiving assistance) whose funding was at least equal to the full cost of tuition. Overall, the program maintains a grant funding benchmark of 45% of each student's unmet financial need. The average debt load at graduation has fluctuated somewhat, but has decreased in terms of both absolute and inflation-adjusted dollars since the highest level posted in 2004-05, according to data compiled by the Office of Student Financial Services (which benefits from a higher sample size than the CGQ results from most years – see Key Quantitative Indicators in the MS section of the database). This improvement would appear to be associated with the extensive financial aid programs described above that were instituted or expanded in the last seven years.

The ISA described the cost of medical education as “unaffordable” and funding for students in the form of scholarships and bursaries as “inadequate,” with 20-25% of students in each year agreeing that concerns about covering the costs of education have had a negative impact on their health and well-being. While the self-study recognized student concerns about their financial situation and the need for continued fundraising, it concluded that the efforts made to date to advocate for students and limit student debt as much as possible were effective. Although students report very low rates of *dissatisfaction* with financial aid services and debt management counselling on the CGQ, their incidence of anxiety is of concern to the program; furthermore, the adequacy of these services is also rated much lower on the ISA. It was therefore recommended by the self-study that better communication to students and applicants about the financial assistance provided to them be instituted, that pre-scheduled appointments for all students in first year be arranged, and that there be more education about financial management. Also, in view of students’ limited awareness of repayment trends, post-graduate income levels, and other related areas, the self-study recommended that residents be enlisted to participate in informational sessions on financial management in order to provide a near-peer perspective. To date, the Office of Financial Services has taken on an expanded role in the recruitment aspect of the interview weekends for applicants, created new educational sessions (live and online) for enrolled students, and scheduled appointments with all students in Year 1. A new session at the end of Year 4 has been scheduled featuring residents, as well. The various activities of the Office are described in detail in the database (MS-23).

In conclusion, the program’s initiatives to advocate for students and to mitigate the costs they incur by providing enhanced funding are useful. Education of students about managing their personal financial situation appears to require ongoing development, and the Office of Financial Services is moving forward in this regard. The Dean has also indicated that significant further fundraising for medical student financial aid is her top priority in the new campaign recently launched by the University.

**8. Evaluate the adequacy and availability of student support in the following areas: Personal counselling and mental health services, including their confidentiality and accessibility. Preventive and therapeutic health services, including immunizations and health and disability insurance. Education of students about bodily fluid exposure, needlestick policies and procedures, and other infectious and environmental hazards associated with learning in a patient care setting.**

*Personal counselling*

Since the last accreditation, the OHPSA introduced personal counselling to supplement University-wide services. Three counsellors (2.0 FTE) are located in a separate location from the bulk of the UME program’s operations in the MSB, and a similar physical arrangement for counselling is established at MAM. These discreet locations help to preserve the privacy of students accessing this service. The counselling staff are bound to patient confidentiality except as required by law (e.g., if there is a concern about imminent harm to the student or another individual), and in no way participate in student assessment. In addition to private appointments, the personal counsellors offer group wellness activities to support the mental and emotional health of the student body. On both the CGQ and the ISA, *dissatisfaction* with personal counselling is around 10% or lower. While this is a highly satisfactory outcome, improvements are in development; in particular, like the other elements of counselling instituted in UME, the personal counselling service is engaging in more outreach to students with a “Check Your Pulse” program of scheduled introductory appointments offered to all first-year students.

*General health services*

General health services are available to all U of T students on both the St. George campus through the University Health Service and the UTM campus through the Health & Counselling Centre. In addition, the Associate Dean Health Professions Student Affairs has established agreements with four downtown Toronto family practice units and one unit in Mississauga to enable students to register easily as patients at any one of these practices; this can be a highly beneficial arrangement for students, since finding a family doctor in downtown Toronto who is accepting new patients can be challenging. Aside from these options, students may also access health care at walk-in clinics or, for emergency situations, at the nearest hospital; the program has provided information to students in the form of a new policy and flowchart on how to locate these services (see Appendices MS-27.a-b).

### *Immunization*

The immunization policy in the UME program conforms to the standards established by the Council of Faculties of Medicine (COFM, see Appendix MS-29.a.1), and student compliance with the established requirements is monitored by the Office of the Faculty Registrar. Students rely on their primary care provider for standard booster immunizations.

### *Health and disability insurance*

Students are covered for the cost of all essential health services under the Ontario Health Insurance Plan, another provincial plan (for students from outside Ontario), or the private insurance that all international students are required to purchase. As members of the U of T Students' Union, medical students also participate in a mandatory extended health insurance plan beyond provincial coverage. Disability insurance is required of all students receiving financial aid from the UME program. Education and options about insurance are covered during Orientation Week in Year 1. Disability insurance is not currently required for the approximately 30% of students not receiving financial assistance, but they are strongly encouraged to acquire this through a variety of readily available and low-cost options.

### *Education of students about infectious and environmental hazards*

Students receive formal education about safety in the use of sharps and exposure to bodily fluids and other infectious and environmental hazards at multiple points in the curriculum, in both Preclerkship and Clerkship, as described under MS-30 in the database. In 2011-12, further enhancements to student education were introduced by the Clerkship Director (an infectious disease specialist) in the form of factsheets available online for student use and also course-specific instructions relevant to their clinical settings and typical patient profile. On the CGQ in 2011, 84.4% reported appropriate instruction on infectious disease prevention, and 97.1% answered yes to a question on knowing what to do in the event of exposure to infectious or environmental hazards, compared to an all schools average of 90.6%. On the ISA, only 4.2% of clerks disagreed that they had been sufficiently prepared to protect their health.

In 2010-11, the program identified a policy gap about specific handling of incidents of student injury, and also became aware of anecdotal evidence suggesting that when faced with an actual incident, both students and faculty did not always follow the appropriate steps. A new protocol was therefore established and heavily promoted to students and faculty by means of the new UME handbooks, the "Red Button" emergency resource feature on the UME website (<http://www.md.utoronto.ca/redbutton.htm>), and listserv messages. The protocol is supported by an addition to the affiliation agreements that has been signed off by every affiliated health care institution (see Appendices ER-9/10.a.1-15). The locus of reporting around student workplace injury now formally resides with the Academy Directors, who are responsible for producing an annual incident report submitted to the Vice-Dean UME and the UME Executive Committee for their consideration.

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## ***C. The learning environment***

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### **9. How effective are the medical education program and its clinical partners in ensuring an appropriate learning environment for medical students? Summarize successes and challenges in evaluating the learning environment to support positive and mitigate negative influences on students' acquisition of defined professional attributes.**

*Note: The efforts of the UME program to provide a positive learning environment in relation to diversity are described under Institutional Setting, question 6, and Medical Students, question 3.*

A joint commitment to ensuring the appropriateness of the learning environment is explicitly identified in the affiliation agreements between the University of Toronto and the 27 affiliated health care institutions, as quoted in MS-31-A question (e) in the database. As itemized in the database under MS-32, a number of policy documents at the level of UME, the Faculty of Medicine, the U of T, the College of Physicians & Surgeons of Ontario, and the Province of Ontario serve to elaborate the concept of appropriate professional attributes for both teachers and learners, and to identify proscribed behaviour that will be subject to sanctions. All of the policies

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are available online but have historically been found among a large number of different websites. To better serve students and teachers, in 2011, the UME program consolidated all policy information on its website (where they are included in thematic lists and the alphabetical policy list) and also in the *Student* and *Teacher Handbooks*, which have been heavily promoted to their respective audiences via multiple channels. Awareness-building responsibilities also rest with the Vice-Presidents Education (or equivalent) of each hospital affiliate, who work together through the Hospital University Education Committee (HUEC).

Foremost among the policies is the *Standards of Professional Behaviour for Medical Clinical Faculty* (Appendix MS-32.a.2), which states, “*Clinical faculty should demonstrate and effectively model high standards of professionalism, including a commitment to excellence and fair and ethical dealings with others in carrying out their professional duties..... Clinical faculty members will not engage in actions inconsistent with the appropriate standards of professional behaviour and ethical performance.*” Twelve categories of inappropriate behaviour are identified. The policy describes a process for concerns about observed behaviour to be brought forward, and the reporting mechanisms available have been significantly strengthened in 2011-12 with the launch of a new UME protocol and online reporting tool. These measures, which also apply to incidents of mistreatment, are described in Question 10 below. This policy is strongly enforced by the Dean, the Associate Dean Equity & Professionalism, and the Vice-Dean UME.

#### *Evaluation of the learning environment*

The program’s most extensive formal learning environment study to date occurred under the auspices of the Generalism Task Force (2006), which conducted a series of focus groups to examine the attitudes about generalist disciplines, and family medicine in particular. Evidence was reported leading to actions that have raised the profile and importance of generalist teaching and learning. These included the expansion of the Family & Community Medicine clerkship and the introduction of the second-year Family Medicine Longitudinal Experience (FMLE) course, a six half-day observership. More recently, U of T enrolled in the AAMC Learning Environment Study, which involves periodic surveys of the 2011 entering class about the learning environment throughout the duration of the program.

Other approaches to evaluation of the learning environment constitute more regular processes. Students are educated about professionalism and assessed on their conduct throughout the program; likewise, supervising teachers are evaluated by students for their professionalism, an activity made more explicit as of 2011-12 through the introduction of standardized professionalism questions in all evaluations of teachers. This parallelism serves to emphasize to students that the program has high expectations for all members of the UME community and for their responsibility to contribute positively to the learning environment. To complement the enhancements to the teacher evaluations, new “learning environment surveys” have been added to the end-of-course evaluation forms in every clerkship rotation (see MS-31-A in the database). Prior to this year, evaluation of both teacher professionalism and the learning environment primarily occurred via course-specific forms that varied in format and therefore limited system-wide analysis. The feedback on the previous evaluations did suggest that overall the University and its affiliated hospitals have a very positive atmosphere for students with good role modelling by faculty.

The new reporting and tracking protocol for incidents of both mistreatment and general unprofessionalism noted above will assist the program in monitoring and intervention. As of 2011-12, the Associate Dean Equity & Professionalism is responsible for an annual summary report that analyzes the nature and frequency of the incidents reported each year and highlights approaches taken to resolve and prevent breaches of professionalism. This report will be widely disseminated by the decanal team to the Faculty leadership.

#### *Effectiveness*

On the UME teaching faculty survey, 86% of respondents agreed or strongly agreed that the learning environment in the Faculty’s clinical settings promotes professional attitudes and behaviours, a figure that the self-study judged to be satisfactory. In contrast to the global impression that faculty were asked to provide, on the ISA students were asked about specific incidents they had observed. They reported witnessing faculty or staff contributing to an intolerant or disrespectful learning environment at rates of up to 30% in Year 4,

approximately 25% in each of Years 2 and 3, and 8.6% in Year 1. These rates among upper-year students are in the same range as the 34.1% rate of witnessed mistreatment reported on the CGQ in 2011 (37.9% national average); in the 2010 CGQ, 15.6% of U of T graduates reported witnessing mistreatment, compared to 31.9% nationally. While we are lower than the national average, the self-study considered these rates to be higher than acceptable, and that further efforts are warranted to determine more precisely the nature and frequency of these harmful learning environment episodes, in order to permit meaningful intervention. One means of accomplishing this goal will be the program-wide analysis enabled by the standardized learning environment and teacher evaluation described above, as will the new reporting and tracking protocol for serious incidents.

**10. Citing data from the independent student analysis and the AAMC Canadian Graduation Questionnaire, comment on the effectiveness of school policies for addressing allegations of student mistreatment and for educating the academic community about acceptable standards of conduct in the teacher-learner relationship.**

*Student mistreatment: Data and analysis*

On the ISA, respondents were asked a series of questions related to discrimination. The results show that 13.4-25.7% personally witnessed or experienced discrimination of some kind from fellow students (with higher rates in the Clerkship), while 8.4-29.7% witnessed faculty or staff contributing to an intolerant or disrespectful learning environment (with higher rates after Year 1). A minority of clerks felt that they would be encouraged to report an incident of discrimination in the educational environment that they had experienced or witnessed, with higher rates in the Preclerkship, and only 35% of all students said they knew to whom to report such an incident. On the CGQ, 63.6% of students reported awareness of the existence of a mistreatment policy (compared to a national average of 74.9%). On the other hand, the levels of experienced mistreatment have been consistently lower than the national average every year since 2004. In 2011, 19.3% of U of T respondents reported having been mistreated compared to 24.2% nationally; in 2010, the U of T rate was 14.4%, and the national average was 23.6%. Notwithstanding these favourable results in comparison to the national average, UME considers the reported rates of mistreatment of our students to be too high.

The program recognizes that communication channels to report concerning incidents required improvement. While students shared their experiences with a variety of UME leaders, who addressed the issues depending on their position, there was no explicit expectation that this information be fed forward to the central UME leadership. The absence of a clear communication strategy to report mistreatment was noted in the ISA, and prompted one of the major student recommendations: “*That the Faculty promote awareness of and access to all channels of communication for students regarding issues of discrimination, safety, and scheduling in any academic setting.*”

In response to the student concerns and the program’s own recognition of this important gap, in the fall of 2011 a new *Protocol for UME students to report mistreatment and other kinds of unprofessional behaviour* was implemented, describing how breaches of standards of conduct should be reported and how these reports are handled (in keeping with existing policies), monitored, and summarized annually. Accompanying the new *Protocol* is a flowchart to guide students through the process, an entry point on the “Red Button” online crisis information tool (viewed over 2500 times by 816 unique visitors in the first three and a half months that it has been available), and also a confidential online reporting form that can be submitted anonymously if the student desires. The *Protocol* specifies the steps to be taken when reports are made, and requires recipients of these reports to forward a summary to the Associate Dean Equity & Professionalism, who prepares an annual incident report. The *Protocol* explicitly identifies the joint responsibility of both this Associate Dean and the Vice-Dean UME to actively address any concerning rates or trends of harmful incidents with collaboration from leaders inside and outside UME as necessary.

*Educating the academic community about acceptable standards of conduct*

The *Protocol* has been publicized to students via listserv and the Faculty Response to the ISA, and has also been included in the *UME Teacher* and *Student Handbooks*, which have been broadly and repeatedly communicated to their respective audiences. In addition, all teachers have been notified of the introduction of the teacher

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professionalism questions on the evaluation forms (see Question 9 above), in anticipation that this proactive monitoring of professional attributes will itself have a favourable impact on teacher behaviour and the environment. The impact of these measures will be monitored closely via future CGQ surveys, and via surveys with students.

Concurrent with dissemination of the *UME Teacher Handbook*, an accreditation-related faculty survey was conducted. The results indicate that 74.4% of respondents reported being familiar with the University's expectations regarding their conduct, and approximately 60% know whom to contact if a student informs them of an incident of mistreatment or unprofessionalism by a faculty member or student. It is evident that additional efforts are needed to improve communication and education of faculty about what to do when they receive such information from a student, and the *Handbook* is expected to have an important impact in this regard. Further efforts via departmental messaging are also being launched in 2012. As an initial step towards addressing the rate of mistreatment, the more systematic monitoring of teacher professionalism and of the learning environment is anticipated to provide information about any specific sites or learning settings where there is an unusual level of problematic issues, as will the annual reports of the Associate Dean Equity & Professionalism. These results will guide further interventions.

**11. Evaluate the familiarity of students and course and clerkship directors with the school's standards and policies for student advancement, graduation, disciplinary action, appeal, and dismissal. Review the adequacy of systems for providing students with access to their records and ensuring the confidentiality of student records.**

All course directors understand and apply as required the major standards and policies that govern student advancement, graduation, and disciplinary action in the UME program. These include the *Standards for grading and promotion of undergraduate medical students*, the *Guidelines for Assessment of Medical Trainees in Academic Difficulty*, the terms of reference of the BOE, the professionalism expectations both in terms of the professionalism evaluation forms and policies defining appropriate and inappropriate conduct (such as the *Guidelines for Ethics & Professionalism in Healthcare Professional Clinical Training and Teaching*), and the key elements of the *University Grading Practices Policy*. New course directors are oriented to these policies by the Preclerkship/Clerkship Director. Effective communication among course directors, the Preclerkship/Clerkship Director, and the Faculty Registrar serves to ensure quick resolution of any questions about process. While course directors are aware that appeals and dismissal are possible, they may be less familiar with the procedures and policies governing these sanctions, since these are rare events and outside of their direct purview. The Chair and members of the BOE, the Faculty Registrar, the Preclerkship and Clerkship Director, the Associate Dean Health Professions Student Affairs, and the Vice-Dean UME are all very familiar with these procedures and regulations.

Access to all policies related to advancement, graduation, disciplinary action, appeal, and dismissal are available on the website of the UME program and in the *Student Handbook*, and these are the principal means by which students become familiar with the standards and procedures employed in UME. In recognition that several key concepts were articulated in multiple documents or existed as uncodified practice, in 2012, the program formally adopted the *Standards for grading and promotion of undergraduate students*, which define the concepts of passing, failure, and borderline performance, and clearly articulate the recommendations that will be made to the BOE in each circumstance. All course directors provide students with detailed information about assessment components in their course and any special requirements to obtain credit beyond a numerical pass; as of 2011-12, courses must also provide a description of typical remediation and extra work. When a student's completion of a course, advancement, graduation, or conduct is in question, the relevant course director and Preclerkship/Clerkship Director are responsible for reviewing the pertinent policies with the student, and informing them of their rights with regard to representation at meetings, academic or personal support, and appeal in the event of an adverse decision.

The system to provide students with access to their record is appropriate and largely automatic as all elements of the student record, with the exception of the admissions file, are available upon request from the Faculty

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Registrar. Such requests are made via the Associate Dean Health Professions Student Affairs. Students routinely receive all of their evaluation forms automatically through MedSIS. They may request to review (in order to challenge) any form, examination, or assignment, but must do so within one week of the release of the assessment results to them. Policies are also in place for more formal reviews through the Office of the Registrar after the one-week deadline. (See MS-35 and -36 in the database for details.)

The paper portions of the student record are maintained by the Office of the Registrar according to University requirements. The documents are secured in locked filing cabinets that reside in a locked room. The electronic portions of the record are found in the Repository of Student Information (ROSI), a student registration information system employed by the entire University, and MedSIS, a custom-developed product for UME at the U of T. ROSI is inaccessible to staff and faculty outside of the Office of the Faculty Registrar. MedSIS features over a hundred administrative-level users whose functions in the system range from relatively non-confidential tasks such as course scheduling to the handling of marks and other assessment information, including professionalism details. The user accounts in MedSIS are customized to provide each person access to only those features relevant to their role (with the appropriate read/write/no access levels and filtering by site, course, etc.). A privacy statement on the login screen reminds users that the data in MedSIS are confidential and must not be shared. The self-study considered these security measures and systems to provide access to students to be appropriate.

## **12. Assess the adequacy and quality of student study space, lounge and relaxation areas, and personal storage facilities. Do available resources for study contribute to an environment conducive to learning?**

Student study, lounge, and relaxation spaces and personal storage facilities are described in the database under MS-37. The ISA conducted in March 2011, reported a deficiency in student study areas in the vicinity of the MSB. The MSB offers no dedicated study space and the nearby Gerstein Science Information Centre is increasingly overcrowded. Preclerkship students in particular advocated for study space that would be reserved for medical students only and accessible 24 hours a day. The self-study recommended immediate action, and in response, the UME program worked with the Dean and the Director of the Facilities Management & Space Planning to identify a suitable location, and capitalized on a recent vacancy to acquire substantial new space in a building across the street from the MSB. The resulting newly-renovated, 24-hour dedicated study space opened in January 2012. Other improvements include expanded hours at Gerstein and 24-hour access to a 20-seat computer lab in the Discovery Commons. At UTM, ample study space is available among the small-group rooms in the MAM space in the Terrence Donnelly Health Sciences Complex (TDHSC); these rooms are restricted only to MAM and are available 24 hours a day when not booked for classes. A number of 24-hour computer labs are located in adjacent buildings as well. Students have well-equipped private lounges and full-size lockers in both the MSB and the TDHSC.

All of the affiliated hospitals offer students 24-hour access to their onsite library, which can be used as study space, and most hospitals also offer other quiet spaces for study. In the case of the Academy “base” hospitals (the core academic health science hospitals), classrooms are generally available as study space whenever they are not in use for classes. Medical student or shared trainee lounges are also provided in every Academy “base” hospital, as are lockers for the Preclerkship students assigned to that site. Clerks receive access to lockers or other secure facilities wherever they are on rotation, with very occasional exceptions noted on certain rotations at certain sites from student feedback being obtained more systematically in 2011-12, and these are being addressed by the appropriate course directors and hospital medical education leaders.

With the addition of the new study space on the St. George campus, the self-study concluded that the Faculty of Medicine and its affiliated hospitals provide appropriate support spaces that contribute to an environment that is conducive to learning. The CGQ 2011 reports that 15.5% of graduating students were dissatisfied with the study space available to them (national average 14.8%), and it is expected that this opinion will now improve.

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### III. FACULTY

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#### A. Number, qualifications, and functions

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##### 1. Assess the appropriateness of the current size and mix of faculty for the attainment of the medical education program's goals.

The Faculty of Medicine at U of T benefits from the expertise and commitment of approximately 6800 faculty members, including 589 community-based physicians appointed during 2011. This represents a 35% increase in all faculty numbers since 2004. The vast majority are academic physicians in the Clinical Departments, and approximately 20% are appointed in the Basic Science, Community Health, and Rehabilitation Science Departments, representing the full spectrum of disciplines relevant to the UME curriculum.

In order to achieve the goals of the UME program (see above, under Background of the School), a diversity of teachers is critical to the success of the program, and UME is fortunate in being able to draw upon faculty from each of the four sectors in the Faculty of Medicine. Many basic scientists contribute to the Preclerkship program. Almost all of the Clinical Departments contribute large numbers of teachers in both the Preclerkship and also in the Clerkship, where most rotations are organized along departmental lines. Faculty members from the Community Health Sector (public health and health administration) teach in a number of courses and are chiefly responsible for the DOCH courses. Rehabilitation Sector faculty members teach in the IPE curriculum and co-lead DOCH-1 tutorials with physician faculty.

The UME program has no difficulty in recruiting teachers for the delivery of its core curriculum, and the Department Chairs and education leads are very receptive to new teaching requirements stemming from modifications to the program. For example, to support the FMLE (launched in 2010-11) required 144 supervisors, who were readily recruited through the Department of Family & Community Medicine. Other enhancements to the curriculum, such as the introduction of integrated OSCEs, the Portfolio courses in Years 3 and 4, and selectives in Year 4, necessitated recruitment across all Clinical Departments and all readily met recruitment needs. In the IPE curriculum, an Interfaculty Pain Curriculum recruits 100 small-group tutors from the spectrum of health professions each year to deliver this teaching to over 900 learners, including the 250 Year 2 medical students. Furthermore, every year, many research faculty supervise medical students through the CREMS programs or other research opportunities. UME strives to emphasize integrated, interdisciplinary perspectives in student education, particularly in the Preclerkship. For example, in the Brain & Behaviour first-year block course addressing the basic and clinical aspects of neurosciences, the teaching is delivered by basic scientists drawn from the Departments of Surgery (Anatomy Division), Physiology, and Pharmacology; clinicians such as neurologists, neurosurgeons, psychiatrists, radiologists, family practitioners, paediatricians, ophthalmologists, and anaesthetists; and, an allied health professional in speech-language pathology.

##### 2. Describe and evaluate the availability of opportunities for both new and experienced faculty members (full-time, part-time, and volunteer) to improve their skills in teaching and evaluation. Is institutional or departmental-level assistance, such as training sessions from education specialists, readily available? Comment on the level of faculty participation in such programs.

The UME program is strongly supportive of faculty development, a position made explicit through the adoption of a *Statement on the Importance of Faculty Development for UME Teachers* in 2010-11 (see Appendix FA-4/11.d.1). Faculty development opportunities are described in the *Teacher Handbook* and there is a link from the UME website to the Centre for Faculty Development's site (described below). The many opportunities for faculty development are detailed in the database (FA-4/-11), therefore the following description consists of the highlights only. In total, in 2010-11, approximately 1400 faculty members attended faculty development activities based on reported attendance at the following activities. The Faculty of Medicine, in partnership with St. Michael's Hospital, operates the Centre for Faculty Development (CFD), which offers a variety of workshops

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each year, as well as two levels of two-year certificate program for faculty seeking significant immersion in education; the CFD mainly supports clinical teachers. In all, 248 attendees participated in CFD sessions in 2010-11. U of T also operates a faculty development unit, the Centre for Teaching Support & Innovation (CTSI); in 2010-11, it attracted 41 faculty attendees from the Faculty of Medicine to various education-related sessions. The major Clinical Departments conduct their own faculty development initiatives, with approximately 800 participants in 2010-11 at events such as Education Days for all Department members, teaching orientation for new faculty, optional workshops on particular topics and more intense programs, such as the Department of Medicine's Master Teacher Program, a two-year certificate program requiring a time-commitment of one half-day per week. Within UME, several courses also provide faculty development, particularly when their learning modalities fall outside the more traditional types (e.g., the two ASCM courses and the block courses with a PBL component) or when a new instructional method is adopted in the course (e.g., research methodology tutorials in DOCH-2, faculty supervisors for the new Portfolio course or community family doctors for the new Family Medicine Longitudinal Experience course.

The opening of the MAM in August 2011 and anticipation of the roll out of the entire curriculum over the next four years has prompted UME to launch a two-pronged approach to faculty development. A faculty member was recruited to serve as Director of Faculty Development at MAM, and she has instituted a major program of activities for Preclerkship and Clerkship courses, the program as a whole, and general teaching topics through "Teaching Rounds," attracting over 600 participants to date. In addition, UME has partnered with the Discovery Commons information technology unit of the Faculty to provide in-depth videoconferencing training for lecturers in the program to prepare them for changes in the way they now teach. Forty-six lecturers have been trained thus far, representing a significant majority of those who have lectured in the first year program.

On the UME survey of teaching faculty conducted in November 2011, 44% of respondents reported participating in faculty development delivered by the University (including the Faculty of Medicine, individual Departments, or UME) in the last five years, and 16% had participated in sessions provided elsewhere (double-counting possible). Of note, among teachers who provide more than 20 hours of classroom teaching per year, 80% had attended faculty development. The rate of participation was also very high for teachers in new courses such as Portfolio and FMLE (88% and 85% respectively). These participation levels do not include the many private meetings arranged between course directors and faculty members to help prepare teachers or provide assistance to those who are struggling. The UME program carefully monitors the teaching effectiveness of all teachers via student ratings, and if suboptimal scores and/or significant concerns about teacher professionalism are reported, then intervention on a case-by-case basis by the UME course director or Department Chair is triggered.

The self-study concluded that the availability of faculty development opportunities and the level of participation as reported on the recent survey are largely satisfactory, but recommended greater consistency in the level of offerings across Departments.

### **3. Do faculty receive appropriate support related to effective teaching and scholarship? Are formal institutional programs available to support faculty research?**

The Faculty of Medicine highly values the commitment of its faculty members in their pursuit of teaching, scholarship, and research excellence. These academic career endeavours are recognized through financial support, awards, academic promotion, and the academic environment infrastructure.

#### *Financial support*

The alternate funding plan (AFP) for Ontario full-time academic physicians was instituted in 2006-07 and is described in IS Question 3, above. All full-time clinical faculty are members of academic practice plans, which share income to support the academic activities of the medical school. The University Clinical Departments financially support academic administrative positions and some, such as Anesthesia, have established a financial academic merit system for clinical faculty. Educational leadership positions in UME are funded in whole or in part by the program. To support community-based faculty not in practice plans, in 2010-11 the Ministry of Health and Long-Term Care committed to providing \$1,000 per four-week block of clinical supervision in both

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Clerkship and postgraduate teaching. Community preceptors are also paid \$100 per hour by UME for face-to-face Preclerkship didactic teaching. Most educational faculty development expenses are borne by the faculty member's Department or hospital, and/or the UME program. The affiliated hospitals support remuneration for academic clinical heads of divisions who hold executive academic roles in the Clinical Departments with oversight of physician performance including teaching and research.

#### *Awards and promotion*

Both U of T and the Faculty of Medicine have established high profile annual awards for teaching, and each Department has internal teaching awards. At the University level, the President's teaching awards are the highest award available, and have been presented to five Faculty of Medicine members in the last six years. All of these awards are celebrated at the Faculty of Medicine Annual Education Achievement Day. Furthermore, the Education Deans in collaboration with Department Chairs nominate as many faculty members as possible for national and international teaching awards. The affiliated hospitals and the UME Medical Academies also recognize excellence in teaching and in student mentoring excellence with annual awards. Promotion through the ranks is strongly supported in each Department by the Chair and Promotions Committee (or tenure committees as applicable), which mentor candidates and advise them about the preparation of necessary materials. The vast majority of faculty put forward for promotion are promoted successfully each year through this rigorous and fair process, which speaks to the importance that Chairs place on preparing their faculty for promotional review. Excellence in teaching is a well-recognized basis for academic promotion in the Faculty of Medicine, with many faculty members being promoted to the rank of full professor on the strength of teaching excellence alone. To be promoted to Associate or full Professor, a faculty member must demonstrate sustained effectiveness in teaching, even where their research performance is the primary basis for their promotion.

#### *Education scholarly environment infrastructure*

Educational scholarship is strongly supported by the Departments and extra-departmental units (EDUs) in various ways. In particular, the Wilson Centre for Research in Education (U of T EDU at the University Health Network) is a world-class health professions education research facility. Other examples include the Department of Medicine's CREST program (Collaboration of Researchers, Educators, Scholars and Teachers) to foster educational scholarship, the Department of Paediatrics' monthly academic education rounds, and the Department of Family & Community Medicine's support for the Master of Science in Community Health program in the Dalla Lana School of Public Health. The CFD has also created the Core Foundations in Educational Research (CoFER) program to assist faculty members in conducting educational research. Each year, the Education Development Fund of the Vice-Deans of Education awards a total of \$100,000 on a competitive basis for education development projects, with matching funds from the faculty member's Department. Faculty members with scholarly interest in any aspect of medical education may also pursue a Master's or PhD in education at the Ontario Institute of Studies in Education (OISE) at U of T.

#### *Research environment infrastructure*

The Faculty of Medicine Research Office (FMRO) offers large and small-group workshops, as detailed in the database (FA-4/-11, question (e) and FA-8, question (b)). Topics covered include research services, procedures for grant applications and management, research health and safety issues, research ethics and conflict-of-interest policies, supervision of research trainees, grant writing strategies, research funding opportunities, funding agency interactions, and information focused on grant-writing for specific fields of research. These activities are complemented by sessions conducted for health science researchers by the central University Research Ethics Office. The FMRO has also established a grant development process to work directly with investigators tailoring applications to funding agency requirements. The affiliated hospital research institutes also offer assistance in grant preparation ranging from an intensive internal review process (e.g., at The Hospital for Sick Children's Research Institute) to informal scientific review. Most Departments have established additional support for internal grant review, research mentorship, and additional workshop activities (see FA-4/-11, question (e)). To enhance intellectual property development for research faculty, U of T has partnered with the nine fully-affiliated hospitals in establishing *MaRS Innovation*, a not-for-profit corporation and federal Centre of Excellence for Commercialization and Research that is focused on increasing the scale, scope, and viability of

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intellectual property offerings from partners (see [www.marsinnovation.com](http://www.marsinnovation.com)). This strategy includes bundling researcher-generated intellectual property in areas of strength and market relevance.

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## **B. Personnel policies**

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### **4. Evaluate the system for the appointment, renewal of appointment, promotion, granting of tenure and dismissal of faculty members. Are the policies clear, widely understood, and followed?**

The Faculty of Medicine follows U of T policies and procedures for appointment, renewal of appointment, promotion, granting of tenure, and dismissal for all types of faculty; in some cases, the Faculty has instituted supplementary guidelines as permitted by the University to better inform certain processes. These policies are consistently applied by academic and administrative leaders in all Departments, and the self-study praised the clear framework that they provide. All policies are publicly available on University and/or Faculty of Medicine websites. The system is described in detail in the database under FA-3/-7, and only key highlights are noted below.

The most critical aspect of faculty policies in the Faculty of Medicine is the distinction between clinical (MD) faculty and other faculty. This distinction is realized through two U of T Governing Council policies: (1) the *Policy for Clinical Faculty*, which applies to physicians appointed in Clinical Departments as clinical full-time, clinical part-time, or clinical adjunct; and (2) the *University of Toronto Faculty Association (UTFA) Memorandum of Agreement*, which applies both to physicians appointed outside the Clinical Departments (predominantly those in public health) and to all non-physician faculty. In this second group, faculty will fall into one of the following categories of appointment: tenured, tenure stream, teaching stream, part-time, contractually-limited term appointment (CLTA), status-only, or adjunct.

This distinct division between clinical (MD) faculty and other faculty was instituted in 2005, with the adoption of the *Policy for Clinical Faculty*. Prior to that time, physicians were appointed under the *UTFA Memorandum of Agreement* as “status-only,” which limited their rights and benefits and the stability of their position at the University. The *Policy for Clinical Faculty* and its accompanying *Procedures Manual for the Policy for Clinical Faculty* define a level of “clinical full-time” faculty appointment (primarily those in fully-affiliated hospitals) as a continuing university appointment, with access to consistent approaches enabling timely resolution of issues, protection of academic freedom, and recognition and support for teaching and research activities. The Vice-Dean Clinical Affairs assists both the Department Chairs and the Office of Human Resources in managing the *Procedures* related to the *Policy for Clinical Faculty*. A Clinical Faculty Advocate, defined by the *Policy* and *Procedures Manual*, and established by the Medical Staff Associations of the fully-affiliated hospitals, offers advice and assistance to academic physicians at arms’ length from university and hospital administration. The self-study considered the introduction of the *Policy for Clinical Faculty* to be an important strength of the Faculty of Medicine.

The Faculty of Medicine has uniform standards governing promotion to Associate Professor and to Full Professor, independent of appointment under the *Policy for Clinical Faculty* or the *UTFA Memorandum of Agreement*. As noted in FA Question 3 above, candidates for promotion are carefully mentored by their Department Chairs to ensure preparedness for review first at the departmental level and then by the Decanal Promotions Committee. Promotion may be primarily on the basis of teaching excellence, research excellence, excellence in creative professional activity, or a combination thereof, but in all cases, evidence of teaching effectiveness is required. All promotions to Associate and Full Professor require the approval of the Dean and Provost. Separate promotion policies are in place for promotion from Lecturer to Senior Lecturer (for teaching stream faculty) and promotion from Lecturer to the professorial ranks (for clinical (MD) faculty). Formal mechanisms are in place for faculty members to appeal a negative recommendation at the Departmental, Faculty, and University levels. No faculty appeals of promotion decisions have arisen during the current Dean’s tenure.

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The policies for promotion are clear and widely understood by the Department Chairs. Faculty members generally may not have extensive familiarity with these policies until they need to act on them; at such times, they have ready access to documentation and advice about the policies from their Chair. Both the Faculty of Medicine and the University of Toronto have implemented measures to ensure that academic administrators (i.e., Chairs and Directors) are familiar with the policies on appointments, promotions, tenure, and dismissal. Detailed information is available on the Provost's website and the Faculty of Medicine website. The Provost organizes sessions throughout the year for academic administrators (i.e. Chairs, Directors, and decanal team members) on appointments and promotion topics, and Faculty of Medicine Chairs are strongly encouraged to attend.

Within the Faculty of Medicine, the Vice-Dean Clinical Affairs and the Chair of the Senior Promotions Committee attend departmental meetings and are in regular communication with Department Chairs regarding promotions. The Faculty of Medicine Human Resources office makes available detailed information through a confidential portal and has dedicated staff who provide support to Departments.

##### **5. Assess the adequacy of institutional and departmental conflict of interest policies relating to faculty members' performance of their academic responsibilities.**

The U of T Governing Council and Provost and the Faculty of Medicine have several policies and procedures that enable the effective identification and management of potential and actual conflicts of interest, and these are complemented by guidelines instituted by the UME program. Foremost among all these policies is the University's *Policy on Conflict of Interest – Academic Staff*. The various policies cover all types of conflict of interest: professional/commercial/financial, research-related, and personal/familial. All are noted under FA-8 in the database.

These policies enable academic freedom of faculty members and recognize responsibility for ethical behaviour, transparency, and responsible conduct. They describe the oversight and reporting mechanisms for questions or allegations of a conflict. Salaried faculty members sign and submit annual Paid Activities Reports and Annual Accountability Reports to their Chair, who in turn must sign off on the ethical practices of their entire Department for the Dean. The Dean then provides an accountability report to the President following her review of the submissions of every Chair and all other individuals reporting to her, including the decanal team.

In 2011, the Task Force on Relationships with Industry and the Private Sector (TRIPS), which had been struck by the Faculty of Medicine, produced its final report, incorporating several recommendations to limit the likelihood of a conflict of interest arising. (For details, see FA-8 and Appendix FA-8.a.12.) The recommendations include defining situations that require disclosure to the Department Chair and then to the Dean and the establishment of a Standing Committee on Conflicts of Interest. Formal *Guidelines on Relations with Industry* based on these recommendations are now under review by all Departments in the Faculty, and the final draft is expected to be reviewed and approved by Faculty Council in 2012.

Of note, the UME program implemented several new policies in 2011 including: the *Procedure for the Disclosure of Potential Commercial or Professional Conflicts of Interest* that describes the expectations for teachers to inform students about any professional or commercial interest relevant to the topic of instruction; the *Principles Governing the Use of Personal Information in Undergraduate Medical Education* that requires UME leaders to declare to the Vice-Dean UME any other positions held that may place them in conflict because of privileged information they possess about individual medical students or faculty members who teach in UME; and, the *Procedure for conflicts of clinical and educational roles* that describes the responsibility of a teacher to report situations in which the teacher is a current, former, or proposed health care provider for a student, and the action to be taken by the program.

##### **6. Describe the extent of feedback provided to faculty members about their academic performance and progress toward promotion and/or retention. Are faculty members regularly informed about their job responsibilities and the expectations that they must meet for promotion and/or retention?**

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Faculty members are informed explicitly about their job responsibilities at the time of their appointment via detailed, standardized letters of offer. This includes clear identification of the University policies and procedures that apply to their specific type of appointment, for example the *Policy for Clinical Faculty* and the associated *Procedures Manual*, in the case of clinical (MD) faculty. All full-time faculty appointed under the *UTFA Memorandum of Agreement* must undergo an annual performance review that includes formal written feedback on their academic performance by the Department Chair. Academic responsibilities for the upcoming year, including specific teaching duties, are communicated to each faculty member by the Chair in writing. Faculty members who are not fulfilling expectations meet with their Chair, and a plan is developed to assist the faculty member. Clinical Departments conduct regular reviews of their full-time clinical faculty members' academic contributions and provide them with feedback about their performance in a variety of ways, but in all cases they do so annually (or every 18 months in the case of the Department of Anesthesia). The reviews are conducted either by the Department Chair but more commonly they are delegated to the hospital-based clinical department head (e.g. Physician-in-Chief). In the 2011 survey of UME teaching faculty, 68% of respondents agreed or strongly agreed that the Faculty of Medicine valued their teaching contributions, while 24% disagreed or strongly disagreed. Notably, faculty members who reported meeting regularly with their heads to discuss teaching effectiveness scores felt that their teaching contributions were valued significantly more than those who had never or rarely had such a meeting. The self-study considers these results to convey an important message for senior leaders across all disciplines to engage more effectively in discussion of teaching effectiveness with their faculty members. The Dean has directed Department Chairs to ensure that this occurs.

Faculty who are eligible for promotion (in any stream or appointment category) typically undergo a more intensive formal three-year review, although this may be extended to five years in certain categories. This review builds on the annual performance reviews conducted up to that point, and involves a meeting with the Chair to review in detail the academic performance of the faculty member.

### **7. Discuss the extent to which education is valued in the institution. How are the degree and quality of participation in medical school education factored into decisions about faculty retention and promotion?**

Achieving excellence in education is highly valued and celebrated by the Faculty and affiliated hospitals. Every Department in the Faculty of Medicine is fully engaged in teaching and contributing to the *vision* of "...improving health through innovation in education..." which is actualized in several ways. Faculty members' teaching excellence is recognized with a number of awards, and extensive faculty development activities support continuous improvement in teaching (see FA Questions 2 and 3 above). Medical education leaders such as course directors are all provided with protected professional time and stipendiary support, which is generally shared between UME and their Department. Clinical (MD) faculty receive financial support for teaching through multiple channels, as described in Question 3. In the annual review of tenured, tenure-stream, and contractually-limited term appointed faculty to assess their "Progress Through the Ranks" and determine their merit stipend, the guidelines provide for teaching to be given a weight of 40% (with research also at 40% and service at 20%). The degree and quality of participation in teaching are critical for faculty promotion and retention in all Departments of the Faculty of Medicine, and therefore a faculty member's teaching performance is a major factor in their three-year review and at the time of promotion (see Questions 3 and 4). In 2011, of the 142 faculty members who were promoted, 78 specifically demonstrated excellence in teaching as a principal factor in their promotion (either alone or in combination with excellence in research and/or creative professional activity).

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## **C. Governance**

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### **8. Evaluate the effectiveness of mechanisms for decision-making related to the educational program. Are necessary decisions made in a timely and efficient manner with appropriate input from faculty and other concerned parties? Describe and assess the relative roles of committees of the faculty, department heads, and medical school administrators in decision-making related to the educational program.**

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The major bodies involved in decision-making related to the UME program are Faculty Council and its standing committees, the management committees of the Dean (including four Department Chairs' committees), the committees reporting to the Vice-Dean UME, and a number of bodies in which the Faculty participates at the University level or externally. Please see IS Question 4 above for details on the system for governance and management. The self-study noted that while the complexities of U of T and Faculty governance are well known to Department and decanal leadership, faculty at large are unlikely to have detailed knowledge of the regulations and processes unless directly engaged on a governance committee. Complete information is readily available on the Faculty of Medicine and Governing Council websites.

#### *Effectiveness of Faculty and University-level decision-making*

For changes of great significance requiring multiple stages of input and review, the process of consultation and approval typically takes a number of months. The meetings of both Faculty Council and Governing Council and their standing committees are deliberately scheduled in close sequence to minimize the lag between meetings of progressively more senior bodies. Faculty leaders strive to time the finalization of their proposals in alignment with the "approval cycles". The Agenda Committee of Faculty Council screens all items and if an item is insufficiently prepared it is returned to the relevant Committee.

All major financial and operational matters are discussed and/or approved in a timely manner by the Dean's Executive before proceeding to the most appropriate committee of Departmental Chairs for consultation and approval, as necessary. Faculty members have input into decision-making through their Department Chairs. On key academic issues, faculty-wide consultation is undertaken through various mechanisms, including dissemination via committee, Departments, and e-mail communication for direct feedback to the decanal team prior to approval. (Recent examples include the Faculty Academic Strategic Plan 2011-16, the report of the Task Force on Relations with Industry and the Private Sector (TRIPS), and *Standards of Professional Behaviour for Medical Clinical Faculty*.) Academic policy or governance items are referred by the Dean's Executive to one or more of the standing committees of Faculty Council and thereafter to Faculty Council. It is the responsibility of the representatives of standing Committees of Faculty Council to inform and seek advice from their faculty member colleagues. The Department Chairs keep their Executives and faculty members informed of all major Faculty-wide academic and management issues and ensure the decanal team is kept up to date on faculty member opinion and advice.

In response to a 2008 Task Force on Revitalization of Faculty Council (prompted by Governing Council to review all By-laws of Councils across U of T), the Faculty Council Revitalization Committee was struck in June 2010 to review a draft Revitalization Plan. Its objective was to strengthen the role of Faculty Council in academic governance and to enhance communication between Faculty Council and the Office of the Dean. The ten recommendations produced in June 2011 are now being implemented.

The self-study found that the network of governance and management bodies works effectively and collaboratively, according to a well-established structure and well-defined terms of reference that complement one another. Decisions are thereby made in an effective and collaborative manner that appropriately supports the operations of the Faculty.

#### *Decision-making within UME*

In UME, the hierarchy of academic oversight related to the implementation of the educational program can readily be traced from the Vice-Dean UME to the UME Curriculum Committee, then to the Preclerkship/Clerkship Committees, then to the course committees, then to hospital or academic site-coordinators, and finally to teachers at large. When decisions with an impact on teaching at the individual level are being discussed, leaders at each level of the hierarchy seek input from those lower in the hierarchy and feed this information forward. The operational committees of UME (e.g. course committees) are almost entirely composed of faculty members and students. In all but one of the Clinical Departments with associated core clerkships, the Undergraduate Program Director (or equivalent) is also the discipline-specific clerkship course director. This model requires that they report to both the Vice-Dean UME and their Department Chair, thus emphasizing their joint responsibility to the UME program and their Department. (The exception is the

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Department of Family & Community Medicine, which has instituted a separate Undergraduate Program Director to provide oversight to both the clerkship course director and the FMLE course director.)

**9. Assess the effectiveness of the methods used to communicate with and among the faculty. Do faculty perceive themselves to be well-informed about important issues related to the educational program? Do faculty believe that they have sufficient opportunities to make themselves heard?**

The Faculty has made a concerted effort to ensure timely and comprehensive communication to all faculty members from the Office of the Dean, the decanal portfolios, the Office of Advancement (Strategic Communications), and departmental and EDU leadership. At the Faculty level, the methods used include the biweekly *MedEmail* newsletter, sent over e-mail to nearly 17,000 faculty, students, and staff. It includes a personal message from the Dean or one of the Vice-Deans; national and international awards received by faculty members and students; the agenda for Faculty Council and link to meeting minutes; announcements of searches for and appointments of new academic leaders (e.g., Chairs); announcements of Faculty news and events, such as Education Achievement Day; links to updates on successful research grant recipients and new opportunities for research applications. Another method of communication is the *Dean's Report*, published biannually over the past four years, which features the education and research achievements across the faculty. Furthermore, the Strategic Communications portfolio in the Faculty of Medicine Office of Advancement publishes *UTMedicine* magazine at least twice per year for almost a decade and featuring profiles of faculty members, students and staff who contribute meaningfully to the *vision* and *mission*. Finally, the Faculty of Medicine website (<http://www.facmed.utoronto.ca>) is regularly updated to share in a timely fashion all major developments and reports in the Faculty on the homepage; recent examples include the launch of MAM and the *Strategic Plan 2011-2016*. The Departments and EDUs maintain their own websites with items of interest to their faculty and communicate through regular newsletters circulated in print and/or electronically. All the Clinical Departments also publish annual reports, as do the Offices of Postgraduate Medical Education and Continuing Education and Professional Development.

The 2011 survey of UME teaching faculty indicated that 53% of respondents agreed or strongly agreed that they are well informed about issues addressed by their University Department (31% neither agreed nor disagreed). Meanwhile, 62% agreed or strongly agreed that the Faculty of Medicine communicates effectively about important news and other information (29% neither agreed nor disagreed). The self-study judged these results to be encouraging, but considered there to be room for improvement. To this end, the Dean has established a new Office of Strategic Communications and External Relations (OSCER, replacing the previous Strategic Communications portfolio in the Office of Advancement). In 2012, this expanded portfolio, led by a new Executive Director, will launch improved approaches to communication via electronic (including social) media across the entire Faculty of Medicine working closely with all senior leadership. One major priority of OSCER is communication with members of the Faculty of Medicine community (including faculty at large) and with external stakeholders and potential partners about important developments in the Faculty, key performance indicators, and the outstanding achievements of our faculty, students, and staff. In addition, OSCER will solicit meaningful feedback and advice from all constituents and partners.

Within UME, new means of improving communication with faculty have been launched in the past year, including a revamped website and the *UME Teacher Handbook*, which provide clear contacts for various issues and information on responsibilities, avenues for feedback, organizational structures, protocols for key situations related to teaching, and other topics of potential interest. In addition, the Vice-Dean UME is engaging with each Department Chair to underscore issues of particular importance to the program so that they can be conveyed to faculty through multiple channels.

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#### **IV. EDUCATIONAL RESOURCES**

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## A. Finances

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**1. Discuss the stability of and the balance among the various sources of financial support for the medical education program and school (i.e., state and local appropriations, income from patient care, endowments, tuition income, research income, hospital revenues). Discuss the implications of any downward trends in specific revenue sources. Describe the financial prospects for the medical school over the next five years. Are there any departments in financial difficulty? Are there systems/policies in place to address departmental financial difficulties?**

### *Sources of financial support*

The Faculty of Medicine, including UME, has an appropriate and stable balance of financial support from the following sources:

- (a) The Ontario *Ministry of Training Colleges and Universities (MTCU)* provides an annual grant to the University of Toronto in the form of Basic Income Units (BIUs) proportional to the number of students enrolled in each degree program. The Faculty of Medicine receives its portion of BIU revenue for its programs including UME. This is not expected to change in the foreseeable future.
  - (b) The Ontario *Ministry of Health and Long-Term Care (MOHLTC)* provides specific funding to the Faculty of Medicine for priority health professional programs, e.g. the one-time capital grant provided to support the physical infrastructure required for the creation of the Mississauga Academy of Medicine. Part-time physician faculty preceptors in community sites now receive \$1000 per four weeks of supervision through ongoing funding that flows through the University in a transfer payment agreement that commenced in 2010. This is not expected to change in the foreseeable future.
  - (c) *U of T revenue/expense budgeting* provides revenues to the Faculty of Medicine from tuition and also from periodic special funding from the Ontario Government that aligns with either education or research priorities. This is not expected to change in the foreseeable future. Note that in 2007-08, U of T entered a new budget model in which the Faculties receive all of their designated revenues. In turn, all academic, administrative, and infrastructure (building) operating costs, including annual faculty and staff salary increases, are managed directly by the Faculty. The Faculty shares central University expenses based on a formula that includes student, faculty, and staff numbers, as well as external revenues. This revenue/expense model has enabled the Faculty to work with all of its budget units (Departments, programs, and administrative and self-funding units) to establish continual five-year budget projections that are balanced and, ideally, include a 10-15% positive contingency in the base budget in carry-forward funds for strategic planning. During the economic downturn in 2008, this contingency in the budget of the Faculty was critical in enabling stability when the University lost capital in its endowments (approximately 29%) and as a result no endowment income flowed to the Faculties at the end of fiscal year 2008-09. The Faculty reserves are spread across all Departments and education programs, and will continue to act as a buffer for variance in revenues over the next several years.
  - (d) The *Alternate Funding Plan (AFP)* is an agreement between the MOHLTC and the Ontario Medical Association (OMA, the organization which represents the interests of Ontario physicians) to flow remuneration to Ontario university full-time academic physicians in practice plans in lieu of partial fee-for-service income. Since 2006, the U of T AFP physician groups have received \$90 million of the \$225 million-per-annum allocation across Ontario. Over the past six years, this funding has stabilized the recruitment and retention of full-time academic physicians. In 2012, the AFP agreement will be renegotiated and it is anticipated that at least the same amount of funding will continue to flow. The Ontario Medical School Deans are working with the AFP leaders, the MOHTLC, and the OMA to establish more robust accountability and tracking of these funds, in alignment with academic activity including teaching in the undergraduate and postgraduate medical education programs.
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- (e) *Endowed and expendable donation funding* held by the Faculty supports both research and education including student bursaries and awards as well as remuneration for faculty. For example, donations for the Terrence Donnelly Health Sciences Complex (home of MAM on the U of T Mississauga campus) enabled the Faculty to open and operate the building free of long-term mortgage expense. The Faculty of Medicine has raised \$115M in total in the last five years, including \$14.7 million in the UME Access to Excellence campaign to fund student aid and special programs, and continues to invest in expert professional support and infrastructure for successful fundraising. The Faculty now targets fundraising at \$30-40 million per year with medical student bursaries as top priority.
- (f) *Contributions from the nine fully-affiliated hospitals* constitute a considerable directed investment in the UME Academies and UofT extra-departmental units located in their institutions. While some funding flows to the hospitals from the UME budget (e.g., for program leaders and staff), the hospitals support UME through their global budgets. The MOHLTC recognizes this shared academic mission by providing revenue directly to all university-affiliated hospitals in proportion to calculated medical training days. The full affiliates are members of the Council of Academic Hospitals of Ontario and to date have received annual operating revenue from the MOHLTC based on a higher value per weighted case than non-academic hospitals. This formula is expected to change to a health-based activity system in 2012-14 that may alter patient care toward more ambulatory and outpatient services. This will align well with the UME teaching and learning mission of our Faculty.
- (g) *External research revenues* entering the Faculty of Medicine from federal and provincial Agencies and Ministries, not-for-profit foundations, and industry have increased continually over the last decade. Indirect costs on federal grants and contracts flow directly to the Faculty to support on-campus research infrastructure, including building operating expenses. The Faculty is implementing plans to increase all sources of research revenues by enhancing our competitiveness for federal and provincial grants as well as international funding.

In 2011-12, a new threat to university financial stability arose because of a significant shortfall in the University Pension Plan. U of T has divided the cost of the shortfall among its divisions; the Faculty of Medicine has been assigned a minimum annual expense of \$6-7 million for ten years. This unanticipated structural deficit for the Faculty will be managed through cost-containment within each budget unit and increasing revenues from all sources. Over the next five years, anticipated new revenues will align with postgraduate medical education and graduate (professional Masters, MSc and PhD) program expansion.

#### *Financial status of Departments*

The financial position of Departments is examined regularly through the annual review of five-year departmental financial projections, semi-annual forecasts, the annual budgeting process, and “carry forward” reporting. Departments also communicate informally with the Dean and the Comptroller’s Office. If financial concerns are raised and confirmed, the Chair is typically charged with seeking additional revenue sources or cost-containment strategies under the Dean’s oversight; it is generally expected that the issue be mitigated without recourse to financial support from the Faculty. At present, the financial situation of a small number of Departments is being monitored, but none is carrying a deficit. The exception was the Dalla Lana School of Public Health, but in 2011-12 the Faculty eliminated the structural operating deficit of the School and the Provost committed to a significant flow of new funding, coinciding with the recruitment of a new Director of the School whose term will commence on July 1, 2012.

#### *Budget for Undergraduate Medical Education*

The Dean and Vice-Dean UME annually negotiate the UME budget. The Dean has demonstrated a strong commitment to UME, and the Vice-Dean has had no concerns during his tenure about allocation of sufficient resources to support the MD program and develop new initiatives. Since 2004, the UME operating budget has increased five-fold from \$1.6 million to \$8.1 million through increased commitment from the Faculty of Medicine, including MTCU revenues from enrolment expansion and an increased BIU value per medical student. The Vice-Dean UME has full authority over and responsibility for this operating budget, and has

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exhibited sound financial management, demonstrated by a strategic “carry-forward” from each previous year’s budget. Projections for the next four years show a further increase in the budget from \$8.1 million to \$13.5 million coincident with the completion of enrolment expansion. Given the UME budget’s reliance on U of T budgeting and the Pension Plan deficit, the self-study strongly recommends continued and explicit Faculty commitment to UME through efforts to sustain revenues from U of T and increase revenues through fundraising.

**2. Comment on the degree to which pressures to generate revenue (from tuition, patient care, or research funding) affect the desired balance of activities of faculty members. What mechanisms are in place to support the accomplishment of the educational mission?**

While pressures to generate income may affect individual faculty members' activities to varying degrees depending on their specialty and/or clinical care sites, the self-study found no evidence that these pressures have compromised the teaching, clinical care, or research activities of the institution or of faculty members to any significant degree. Major sources of funding for clinical faculty have evolved since 2004: Ontario Medical Association-negotiated fee-for-service increases; provincial AFP supporting the vast majority of physicians at the University of Toronto’s fully-affiliated hospitals; and new provincial funding for community teachers to support teaching at distributed medical education sites (the latter two sources are described in more detail in ER Question 1 and FA Question 3, above). As noted earlier, the Vice-Dean Clinical Affairs represents the University on the eight fully-affiliated hospital AFP Governance committees that determine the allocation of AFP funds to academic practice plans for distribution to full-time clinical (MD) faculty.

Increases in tuition are not a strategy used by the Faculty of Medicine to address financial challenges. Indeed, through the advocacy of the Dean and Vice-Dean, increases in tuition for the UME program have averaged just 2.6% per year (compared to an annual inflation rate of 1.9%), which is well below the provincially legislated limit of 5% that is permitted across each institution, and far lower than the 8% annual increase posted by some professional programs at U of T.

The various and well-balanced sources of funding described in the response to Question 1 above are sufficient mechanisms to support the educational mission of the Faculty of Medicine and the UME program in particular.

**3. Describe how the school has positioned its clinical enterprise (faculty practice plan/organization and structure of healthcare system) for achieving the best results in the local health care environment. Is planning related to the clinical enterprise occurring? Are medical school leaders involved in such planning? How effective is this planning in meeting institutional goals?**

Although U of T does not own or operate hospitals or other health care agencies, all staff physicians at the fully-affiliated hospitals are U of T faculty members, as are a rapidly growing number of staff physicians at community-affiliated hospitals across the GTA. There is a concurrent appointment process for the Chiefs of all clinical hospital departments in the fully-affiliated institutions such that either the Dean or a delegate from the University and the Chair of the appropriate University Department serve as members of the search committee. Furthermore, either the Dean or one of the Vice-Deans represents the University on the Boards of seven of the fully-affiliated hospitals and two of the community-affiliated hospitals (North York General Hospital and St. Joseph's Health Centre). Directors on the Boards of the other two fully-affiliated sites (The Hospital for Sick Children and Holland-Bloorview Kids Rehab) include former and current U of T senior leaders (Deans and Department Chairs and a former university president). Hence, the Faculty of Medicine is well placed to participate in planning and decision-making in the local health care environment through the network of affiliated hospitals.

The Toronto Academic Health Science Network (TAHSN), described in IS Question 3 above, also contributes to clinical enterprise planning via its committees comprised of both U of T and hospital leaders. These committees have been involved in projects including integrated information technology, safety and quality programs, and new initiatives in clinical care such as the recently launched “BRIDGES” program. The latter project, which is led by the U of T Departments of Medicine and Family & Community Medicine and funded by the MOHLTC,

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aims to integrate hospital, primary, and home care to reduce avoidable hospitalizations and emergency Department visits via new models of care with community partners. In 2008, the Faculty of Medicine and its TAHSN partners established the Centre for Patient Safety, an EDU jointly housed at The Hospital for Sick Children and Sunnybrook Health Sciences Centre. Strategic and collaborative interactions among the affiliated hospital and Faculty leadership on TAHSN, the TAHSN Education Committee, and the Hospital-University Education Committee of the Faculty of Medicine (also described under IS Question 3) ensure that innovation in clinical care also serves the shared academic mission of the Faculty, including UME.

The quality of care provided by the fully-affiliated and community-affiliated hospitals is exemplified by the high standards achieved by all of these hospitals, which place in the ninetieth percentile in Canadian accreditation rankings. Each hospital Board monitors their “clinical care report card” to enable their hospital to strive for improvement. The launch of electronic medical records and medication order-entry and delivery systems in the affiliated hospitals have reduced medical errors and set new standards for Canadian health care institutions. The standardized mortality rates among the affiliates are some of the lowest in the province, despite the acuity of quaternary services in the acute care academic hospitals.

**4. Describe how present and future capital needs are being addressed. Is the financial condition of the school such that these needs are being and will continue to be met?**

The physical infrastructure is managed on campus by the Faculty of Medicine's Facilities Management & Space Planning (FMSP) unit, created as part of the Dean's Office in 2006 to better coordinate space planning and building maintenance. The FMSP works with Departments and units to develop plans in response to changing requirements (e.g., increased enrollment, new technology and equipment, or new occupational health and safety requirements), and conducts regular site surveys and analysis according to the guidelines of the Council of Ontario Universities. Deferred maintenance is addressed as needed by U of T Central Facilities and Services, together with more immediate repairs as identified by FMSP. A Faculty-wide assessment is currently underway to prepare a Master Plan that will guide the next three-year and ten-year goals for Medicine's space and facilities on the University campus.

Education-related hospital capital planning is addressed through HUEC and directly between the Dean and the CEOs of the affiliated hospitals. Since 2004, new education space has been built at multiple hospital sites where the UME program is delivered, on the UTM campus for the MAM, and in the MSB, as described in Question 5 below. The affiliated hospitals and Faculty have successfully financed these projects without deficit. The 2010 Task Force on Medical Academies recommended clear articulation of the minimum infrastructure standards required for clinical sites to host medical students, and the self-study echoed this recommendation. In response, the Clerkship Committee is now collaborating to articulate the requirements for each course. The revised affiliation agreement template (see Appendix ER-9/10.a.1) now contains specific reference to the ER-7 facility standards. All base hospitals for the Medical Academies have in the last ten years either constructed state-of-the-art facilities in support of medical student teaching or have firm plans to do so in the near future.

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***B. General facilities***

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**5. Evaluate the adequacy of the general facilities for teaching, research, and service activities of the medical school. Are the opportunities for educational excellence or educational change (e.g., introduction of small group teaching, opportunities for active learning) or for the attainment of other medical school missions constrained by space concerns? Describe the likelihood that needed space or space upgrading will be available in the near future. Have enrollment increases led to space constraints? If so, describe how these constraints are currently being addressed.**

The space and facilities on campus and at the affiliated hospitals are appropriate for the teaching, research, and service activities of the UME program. The MSB constructed in 1968 was significantly renovated subsequently. It provides teaching space and laboratory facilities for on-campus tenured faculty members. New research space

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created in the last decade includes the construction of the on campus Terence Donnelly Centre for Cellular and Biomolecular Research and the renovation of 155 College St Health Sciences Building that houses the Institute for Health Policy Management & Evaluation and the Dalla Lana School of Public Health. Renovated or new research space is also in place at the fully-affiliated University Health Network, Holland-Bloorview, Sunnybrook Health Sciences Centre, and St. Michael's Hospital. Major research institute capital projects are underway at The Hospital for Sick Children, Centre for Addiction and Mental Health, and UHN – Toronto Western.

The MSB and the Academy sites provide appropriate teaching space for medical students. When concerns about physical conditions are raised by students, faculty, or staff, the Faculty of Medicine senior leadership responds effectively. Since 2004, the MSB has been upgraded to address advances in technology, the 31% UME enrolment expansion, and the need for maintenance. The major lecture theatres in the MSB underwent a thorough renovation in 2007 to permit videoconferencing to MAM. In 2010, high definition computer video screens were installed in the gross anatomy laboratories to enhance students' learning of anatomy. New office spaces for the Office of the Registrar and the counselling staff of the OHPSA were assigned. The Discovery Commons was constructed in 2007, and features multiple computer labs, modular classrooms, a videoconferencing studio, meeting rooms, and expanded space for technical staff and equipment.

Facilities at the Academies that support UME teaching have likewise been upgraded at each site and continue to be improved. State-of-the-art teaching facilities have been established at the Li Ka Shing Knowledge Institute at St. Michael's Hospital (2011) and in the Sydney and Florence Cooper Family Centre at Mount Sinai Hospital (2009). Excellent Medical Academy space exists at UHN including the Paul Helliwell Centre for Education at the Toronto General Hospital and in the MedWest Building at the Toronto Western Hospital. The Task force on Medical Academies and subsequently the ISA raised concern by the students about the Peters-Boyd Academy facilities at the Sunnybrook Health Science Centre. This led to immediate improvements in the technology and furnishings of teaching and lounge space. Since the summer of 2011, the Vice-President Education at Sunnybrook has spearheaded a visioning process to develop a medical education centre, and a consultant architect was engaged in January 2012 to further refine these plans. Construction of improved teaching space is also at planned at Women's College Hospital, the other base site of the Peters-Boyd Academy. MAM is housed in the most significant addition to medical education space constructed since the last accreditation, the state-of-the-art Terence Donnelly Health Sciences Complex, and also in newly constructed medical education spaces at both the Credit Valley Hospital and Trillium Health Centre sites. These two sites of the newly merged hospital both have capital projects under development for medical education centres in the next few years. Improvements have also been made at some of the community hospitals associated with the Academies. Besides the general Academy spaces, high-fidelity simulation facilities are now available at multiple sites including the Surgical Skills Centre (Mount Sinai Hospital), the Waters Family Simulation Centre (St. Michael's Hospital), the Canadian Simulation Centre for Human Performance and Crisis Management Training (Sunnybrook Health Sciences Centre), and The Hospital for Sick Children.

The concerns expressed in the ISA with regard to appropriate study space, library availability, printing and photocopying, and wireless internet services were all noted by the self-study, which recommended immediate action. As described in MS-12, the study space deficiency has been addressed through the creation of a dedicated 24-hour study centre close to the MSB and available exclusively to medical students, featuring study carrels, group study rooms, and rooms equipped with basic clinical skills resources; this space, which can accommodate 150 students, opened in January 2012 after a significant renovation to convert it from its previous office-space configuration. More study space has been made available since the fall of 2011 in the MSB, through an arrangement with the Discovery Commons to allow medical students after-hours access to a 20-station computer lab. To address library availability, UME negotiated with the Gerstein Science & Information Centre to provide longer library hours throughout the school year on Sunday mornings, and also on Friday evenings the week before Preclerkship exams. The printing and photocopying issue has been resolved through the installation of a new network multi-function machine. Wireless access at MSB has been boosted with the creation of a new campus-wide network; similar concerns about internet access at the hospitals are being addressed.

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## **6. Discuss the adequacy of security systems on each campus and at affiliated sites.**

Security systems are considered by the self-study to be adequate at all sites. On the St. George campus, a single security system is managed by the central Campus Police for all buildings, including the MSB. The system includes perimeter access control using card-keys after hours, weekday evening and weekend daytime patrols, and video surveillance in high traffic and high profile areas. The Alumni Lounge (student relaxation space) in the MSB and the new study centre are on restricted card-key access for exclusive use by medical students. The Health Sciences Complex in Mississauga also utilizes a card-key access system to secure the building and specific rooms off hours. Campus Police on both campuses provide walk-safe programs and other security measures for all U of T students.

The hospital sites have a range of systems, including card-key security for call rooms and other rooms, use of photo identification badges, hospital security staff, and walk-safe programs to escort students and staff to and from transit stops during off hours.

Students have not identified any significant safety concerns either on campus or at the affiliated clinical sites, and on the ISA 90% or more of the students in each year agreed or strongly agreed that they feel safe in academic settings they attend for medical education (e.g. hospitals, on campus, in the community).

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### ***C. Clinical teaching facilities***

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## **7. Analyze the resources for clinical teaching available to the medical education program. For the size of the student body, are there adequate numbers of patients and supervisors available at all sites? Has the school needed to expand its clinical teaching network to address either expanded enrollment or decreased patient volume? Is the patient mix appropriate? Are clinical facilities, equipment, and support services appropriate for exemplary patient care? Discuss the availability, quality, and sufficiency of ambulatory care facilities for teaching.**

U of T accesses extensive clinical teaching at 9 fully-affiliated including four acute care hospitals (St. Michael's Hospital, Sunnybrook Health Science Centre, Mount Sinai Hospital and the University Health Network [4 units – the Toronto General Hospital, Toronto Western Hospital, Princess Margaret Hospital and Toronto Rehabilitation Institute]); a paediatric acute care hospital (The Hospital for Sick Children); a paediatric rehabilitation hospital (Holland-Bloorview Kids Rehab); a geriatric care hospital (Baycrest); a psychiatric hospital (Centre for Addiction and Mental Health); and a women's health and ambulatory care facility (Women's College Hospital). The 18 community affiliates include four acute care hospitals formally associated with an Academy and providing a substantial clinical education: St. Joseph's Health Centre, North York General Hospital, Toronto East General Hospital, and the newly-merged Credit Valley Hospital & Trillium Health Centre. Over the past five years, U of T has entered into new affiliations with six community-based acute care hospitals, two psychiatric specialty hospitals, one independent health facility (Kensington Eye Institute), Toronto Public Health, and Ontario Public Health Agency of the MOHLTC). Together, these institutions provide more than adequate learning opportunities for undergraduate and post-graduate learners, particularly in the community. Both the full and community affiliates have numerous ambulatory clinics that host clinical clerk rotations, and the Faculty of Medicine supports the U of T Centre for Ambulatory Care Education an EDU at Women's College Hospital. The breadth of general and specialized ambulatory clinics ensures exposure to a full spectrum of patients and their illnesses to support UME program objectives, as demonstrated by CGQ 2011 results in which 92.8% of U of T grads have comfort in caring for patients in an ambulatory setting (92.3% nationally). The self study concluded that the UME program is provided with the full spectrum of inpatient and ambulatory care delivered through up-to-date facilities, equipment, and support services,.

As described in the FA and MS sections of this report, the physician faculty volume is impressive and the UME program has experienced no difficulty in recruiting teachers. Student feedback on the supervision they receive is addressed in ED Question 9, and for all courses the numerical results are satisfactory. Concern was raised,

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including in the CGQ comments, about the large size of certain patient care teams leading to reduced opportunity for students to participate. In response, the Clerkship Committee is examining this explicitly in 2011-12 on the clerkship rotation evaluation forms asking students about their access to a sufficient variety of patients and technical procedures to meet their learning objectives. Furthermore, analysis of clinical experience logging data will provide insight into this issue (see ED Question 3). The resulting improved understanding of the adequacy of resources on specific rotations and at particular sites will direct effective intervention by the Clerkship course directors.

**8. Describe and evaluate the interaction between the administrators of clinical affiliates used for teaching and the administrators of the medical school. Does the level of cooperation between these groups result in a smoothly operating and effective clinical education program?**

Academic administrators of the affiliated hospitals, other clinical sites and the Faculty of Medicine interact collegially and effectively to ensure that the joint academic mission and shared responsibility for teaching and learning identified in the affiliation agreements is fulfilled. Senior academic administrators from the hospitals and the Faculty work together at regular meetings of HUEC, the TAHSN Education Committee, which facilitate planning of joint ventures in multiple critical areas (see IS Question 3).

The four Academy Directors provide a further administrative link between the clinical sites of training and the UME administration, as they report jointly to the Vice-Dean UME and the Vice-Presidents Education (or equivalent senior leader) of the Academy base hospitals. Academy Directors coordinate the education of medical students that takes place in the academy-based clinical sites, particularly for the Preclerkship (for which they participate extensively in teacher recruitment), and also ensure the smooth operation of the Academy-based medical education offices. They are members of all of the major UME committees and also run a monthly Academy Directors' meeting attended by the Preclerkship and Clerkship Directors and the Vice-Dean UME, thereby ensuring that there is effective bidirectional communication and management of issues between the clinical sites and the medical school at the operational level.

**9. Describe and evaluate the level of interaction and cooperation that exists between the staff members of the clinical affiliates used for teaching and medical school faculty members and department heads, related especially to the education of medical students.**

The physicians of the clinical affiliates interact regularly and very effectively with the leadership of the Clinical Departments and of the UME program. In their clinical role, they report to their hospital's clinical department head (e.g. physician-in-chief); for general academic activities, they report to their U of T Department Chair; and for their medical student teaching duties, they relate to the appropriate UME course director(s) and/or the Academy Director or site director at their hospital. Joint recruitment of teachers by Academy Directors and site directors facilitates optimal matching between local academic expertise of faculty members and program learning objectives. Teachers are oriented to their duties by the individual who recruits them, together with the course director and/or delegate. This orientation includes specific teaching tasks and responsibilities, the objectives of the course, and those of the UME program as a whole. All supervisors and scheduled teachers receive reports on the teaching evaluations completed by students that include overall scores and anonymous comments. These scores are also shared with Department Chairs to inform the annual review process.

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***D. Information resources and library services***

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**10. Evaluate the quantity and quality of the print and non-print holdings of the library as a resource for medical students, graduate students, and faculty members.**

The print and non-print holdings of the U of T Libraries, including the Gerstein Science Information Centre (GSIC), rank fourth among all North American universities according to the Association of Research Libraries. These holdings include the largest academic health sciences collection in Canada. All U of T students and

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faculty (including status-only and clinical (MD) faculty) have full access to the University library system's extensive electronic resources from any internet-connected location. Graduating student feedback from the CGQ in 2011 indicated that 94.3%, U of T graduates were satisfied or very satisfied with library resources, compared to the national average of 89.1%. Students also have access to good resources at each of the libraries of the hospitals associated with their Academy and at any other hospital at which they do a clinical placement, as indicated in the database. The hospital libraries are accessible 24 hours a day to students through security, with presentation of their badge. All sites provide access to their own electronic resources from internal hospital computers, as well as to those of the U of T Libraries. Gerstein and 36 other institutions, including all fully-affiliated and community-affiliated hospitals, constitute the Health Sciences Information Consortium of Toronto, which enables the sharing of resources, information, and expertise.

**11. Comment on the adequacy of information technology resources and services, particularly as they relate to medical student education. Are resources adequate to support the needs of the educational program? Are the information systems of the medical school and major clinical affiliates sufficiently well integrated to ensure achievement of the medical school's missions? Note any problems and describe any plans in place to address these problems.**

Information technology (IT) at both the University and the Academy sites enhance the learning experience through resources that are more than adequate to meet the needs of medical student education, and in many cases represent the state-of-the-art. Library and IT access are integrated to enable remote access from any internet-connected personal computer. Each of the hospitals provides computer access to students on clinical rotations, and the Academy sites also have computer laboratories for medical student use. Hospital IT staff are available to provide expert assistance during regular working hours. The Faculty of Medicine has a direct connection to the University's fibre optic network, recently upgraded for increased speed. The University also has wider high-speed connectivity to the commercial internet and to research and education institutions via GTANet (regional), ORION (provincial), and CA\*net4 (national).

Since 2004, numerous IT improvements have enhanced the learning environment, as described in the database under ER-11, question (d). These include creation of the Discovery Commons with its computer labs, videoconferencing spaces, and expert technical staff, the renovation of the MSB lecture theatres to prepare them for fully-interactive large-scale videoconferencing, the installation of iMac screens in the anatomy laboratories, and equivalent facilities in the new Terrence Donnelly Health Sciences Complex at UTM (see Question 5). Most affiliated teaching sites have upgraded videoconferencing capabilities.

In 2006, U of T adopted Blackboard as the official learning management system for all courses. In 2008, Discovery Commons began a lecture capture program that allows students to access lecture audio recordings from Blackboard. In 2011-12, the Blackboard portal launched an "organization" area for the OHPSA, to facilitate student access to resources. Additional initiatives have included the CMAP curriculum mapping tool developed beginning in 2008-09 (<http://cmap.med.utoronto.ca>), which maps the entire MD program curriculum. In 2010, UME commenced the use of T-Res, a commercial platform for student logging of procedures and experiences. Discovery Commons and the UME program also created an online application system for home and visiting electives (<http://admin.med.utoronto.ca/utme/uoft/>). The ISA reported that wireless access in some of the hospitals is inadequate. The Hospital University Education Committee and the Toronto Integrated Medical Education Office are conducting a more detailed analysis of the IT platforms available on campus and in the affiliates to identify necessary upgrades, including wireless access. Where students cannot access online content wirelessly, they do have access to computers on a wired network. In 2011, the CGQ results demonstrate high levels of student satisfaction with educational IT resources, with 91.4% indicating they were satisfied or very satisfied with computer resources (national average 87.8%), and 90.8% with electronic learning resource (national average 88.0%).

**12. Evaluate the usability and functional convenience of the library and of information resources. Are hours appropriate? Is assistance available? Is study space adequate? Are resources, such as computers**

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**and audiovisual equipment, adequate? Can students access information from affiliated hospitals or from home?**

The U of T's entire electronic catalogue is available online to students from any location, including from the affiliated hospitals and their homes. For print materials, library assistance, and study space, the library of choice for UME students on the St. George campus is the Gerstein Science Information Centre (GSIC), located on King's College Circle, just 100m from the MSB. The GSIC is open 92.5 hours per week, Monday through Sunday, with a slight decrease in hours during the summer months. Library staff are available for assistance in-person and also online through "live chat." At UTM, the Hazel McCallion Academic Learning Centre currently is open for 98 hours per week.

The ISA found that while the vast majority of students are satisfied with Gerstein's adequacy in meeting their learning needs, only two-thirds of Clerkship students and a minority of Preclerkship students indicated that the hours were satisfactory; likewise, fewer than two-thirds of Clerkship students and only a slim majority of Preclerkship students felt that the study space available at the GSIC was adequate. In response to these concerns, UME and the Director of the GSIC made immediate arrangements for extended opening hours on the Fridays before Preclerkship examinations and for three additional hours every Sunday. Study space near the MSB restricted to medical student use has been very significantly expanded as described in the response to Question 5 above. Library and computer facilities at the affiliated hospitals are described in the response to Question 10 above. Although access to assistance from health science librarians at the affiliated hospitals varies somewhat from site-to-site, it appears to satisfy student needs. Students can contact GSIC librarians from any location.

The Discovery Commons computer facility in the MSB features open-use computer laboratories that are available to students on a drop-in basis during working hours when not scheduled for classes. During these hours, technical assistance is also available in-person or by telephone. In addition, the Discovery Commons foyer and one 20-seat computer lab are available to medical students after hours and on weekends through card-key access. The ISA found that over two-thirds of upper-year students felt that the Discovery Commons had an adequate number and quality of computers, although this fell to a slim majority among Year 1 medical students. Discovery Commons has since increased access to computer space after hours and acquired new computers. A student concern regarding access to printing and photocopying in the Discovery Commons was met by installing a new high-capacity multi-function machine. The audio-visual technology enhancements since 2004 are described above in Question 11.

In summary, the self-study considered the resources of the library and information technology units to be very satisfactory, and their responsiveness to UME needs to be highly notable.

**13. Assess the contributions of library and information technology staff to the education of medical students and the professional development of faculty members in the following areas: Teaching specific skills, such as instruction in computer usage and bibliographic search, retrieving and managing information, interaction with the curriculum committee to coordinate various library and information resources with planned curricular design.**

Both U of T library staff (from the GSIC and the Hazel McCallion Academic Learning Centre branches) and Discovery Commons information technology staff contribute significantly to the UME program. The Director of IT meets regularly with the Vice-Dean and is a member of the MedSIS Steering Committee. The Director and staff of the Discovery Commons are frequently invited to attend meetings of the UME Curriculum Committee and the Preclerkship and Clerkship Committees. Since the creation of the Discovery Commons in 2007, the unit has taken a leading role in a number of key developments in UME (described in Question 11 above). Across the Faculty, the development of WebCV by the Discovery Commons is standardizing and streamlining faculty members' *curriculum vitae* maintenance. The Discovery Commons provides day-to-day support to UME, including the execution of computer-based examinations, handling of evaluation data such as OSCEs and other student assessments, user assistance for the Blackboard Portal, operation of computer labs for student use, and general computing and network services for staff and faculty.

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Librarians with the GSIC and Hazel McCallion Learning Centre teach in each UME program year on progressively more sophisticated topics related to searching for information and available resources. This curriculum is designed by a committee of librarians in close collaboration with course directors and the Preclerkship and Clerkship Committees. The librarians also serve as assessors for the Determinants of Community Health-2 library search strategy assignment. Aside from holding responsibility for conducting certain teaching sessions, library staff are available to UME curricular leaders for individual consultation and have served as a resource to curriculum committees in the past on topics including copyright regulations and course reading lists. The Director of the GSIC demonstrated a commitment to meeting UME's needs, most recently through the launch of extended Friday and weekend hours. The U of T librarians play an important role in the University of Toronto's partnerships with affiliated hospitals, through the Health Sciences information Consortium of Toronto.

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## CONCLUSION: STRENGTHS, AREAS FOR IMPROVEMENT/RECOMMENDATIONS, ACTIONS TAKEN

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The Institutional Self-Study conclusions represent the input of close to 120 committee members from across all Faculty constituencies and their detailed consideration of all available information, including in particular the findings of the Independent Student Analysis.

INSTITUTIONAL SETTING	
<b>Areas of strength</b>	
1. Strategic planning that is robust, thorough, and well-aligned with the overall University strategic plan.	
2. Excellent relationships between the University and hospital affiliates, facilitated by the Toronto Academic Health Science Network (TAHSN) structure, and the Hospital-University Education Committee (HUEC).	
3. Large network of clinical affiliates, with considerably increased engagement with the community in the last eight years.	
4. Exceptionally high quality of research activity, with remarkable depth and breadth. Large and diverse graduate programs, including the MD/PhD program, with excellent outcomes.	
5. Excellent existing and planned research space at the affiliated hospitals, accommodating a substantial number of research faculty.	
6. Outstanding postgraduate medical education programs, with excellent contribution from residents to medical student teaching.	
7. Multiple research opportunities for medical students across a broad spectrum of disciplines.	
8. Overall diversity of faculty, staff, and students, and learning environment including the patient population across the entire Greater Toronto Area. Excellent service-learning opportunities for medical students.	
<b>Areas for improvement</b>	<b>Actions taken</b>
Governance is not well understood by all faculty members and students.	A description of governance and management has been included in the <i>UME Teacher and Student Handbooks</i> . A renewal of Faculty Council communication, transparency and functioning is underway.
Students are not sufficiently informed about research opportunities outside of CREMS (Comprehensive Research Experience for Medical Students).	The CREMS program administration has compiled these other research opportunities from Departments and hospital research institutes and created a link from its website: <a href="http://www.md.utoronto.ca/program/research/additionalresearch.htm">http://www.md.utoronto.ca/program/research/additionalresearch.htm</a> & <a href="http://www.md.utoronto.ca/program/research.htm">http://www.md.utoronto.ca/program/research.htm</a>
Limited effective engagement (past 3 years) from the Dalla Lana School	UME is working effectively with the newly appointed Graduate Coordinator / Associate Director of the Dalla Lana School of Public Health, and also with Public Health Ontario to revise and implement curriculum.

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<b>INSTITUTIONAL SETTING</b>	
of Public Health to the UME program.	
Extra-curricular service-learning activities have not included sufficient opportunity for reflection.	As of 2011-12, all voluntary service-learning activities have a reflective component.
The Faculty requires a more comprehensive strategy to promote diversity among students and faculty for particular priority populations.	<p>Faculty Council has adopted an official <i>Diversity Statement</i> identifying priority groups.</p> <p>Faculty and student diversity surveys have been conducted to identify baseline representation of each priority group.</p> <p>The Indigenous Student Application Program has been approved and adopted effective immediately to enhance the likelihood of application and admission of Indigenous students to the UME program.</p> <p>Fundraising activities to support student bursaries are a top priority.</p> <p>Additional diversity-related curricular content has been introduced into both the Preclerkship and Clerkship curricula.</p> <p>The Dean's office and Office of Human Resources in the Faculty will promote proactive hiring practices among all Departments that support increased faculty diversity.</p>
Variability in the quality of campus-based research space.	The Faculty is creating a Master Space and Facilities Plan, and is looking ahead to the proposed major renovation of the Fitzgerald Building in collaboration with the Faculty of Applied Science & Engineering to accommodate some basic science researchers (e.g., Molecular Genetics) currently housed in older space. Furthermore, excellent new research space has recently opened or is under construction at a number of the affiliated hospitals.

<b>EDUCATIONAL PROGRAM</b>	
<b>Areas of strength</b>	
1. Early adoption (2003) of CanMEDS framework as the basis for institutional and course objectives.	
2. Preclerkship and Clerkship educational programs that are reported by students to be well-organized and taught, with clear and achievable objectives, and that provide good preparation for residency and careers as practicing physicians.	
3. Appropriate attention to community health, ethics, and professionalism.	
4. A large number of excellent and dedicated teachers.	
5. The Credit/No Credit system of grade transcription.	
6. Comprehensive curriculum map, developed in-house to meet the needs of the program.	
7. Large and well-resourced group of faculty leaders and administrators in the UME portfolio.	
8. Excellent outcome results on the Medical Council of Canada Qualifying Examination Parts I and II.	
9. Accessibility and approachability of teaching faculty and administration.	
<b>Areas for improvement</b>	<b>Actions taken</b>
Fully comprehensive and consistent monitoring of clerkship encounters and procedures were not in place.	Successful implementation of a new IT application to track student completion of required encounters and procedures in all clerkship rotations is established. A pilot was completed in 2010-11, and is in full operation for 2011-12. Students have been completing all required encounters and procedures in each clerkship rotation, and plans are in place to address the encounter gaps remaining for particular students. A new policy clearly delineates the role and responsibilities of students, supervisors, course directors, and central curriculum leadership to enable this process.
Some gaps remain in the processes of curriculum	The Undergraduate Medical Education Curriculum Evaluation Committee (UMECEC) was created, which undertakes comprehensive reviews of the

<b>EDUCATIONAL PROGRAM</b>	
evaluation and monitoring of program outcomes.	<p>program as a whole, of individual courses, and of program integration. The Curriculum Map (CMAP) has been completed and launched to facilitate more integrated evaluation and planning.</p> <p>An annual survey of recent MD graduates from U of T has been introduced to inquire about the adequacy of their preparation for postgraduate training.</p>
Teachers, students, and some Faculty leaders require broader awareness of program objectives and, in some cases, clearer understanding of the relationship between course objectives and overall program objectives.	<p>Program objectives have been widely publicized to students, teachers, and Faculty leaders through the UME website, e-mail notifications, the <i>Teacher</i> and <i>Student Handbooks</i>, and communication at meetings.</p> <p>Objectives for all courses have been aligned with the UME program's CanMEDS-based framework for objectives.</p> <p>All new initiatives such as the Manager role curriculum and the Transition to Residency Course use the CanMEDS organizing framework.</p> <p>More detailed mapping and communication of specific program objectives to course and session objectives are ongoing.</p>
More formal procedures for monitoring comparability of educational experience of all types at Clerkship sites were required in certain courses.	<p>A formal policy requiring this level of monitoring has been adopted.</p> <p>The Ophthalmology and Surgery clerkships have introduced monitoring across sites, bringing them into compliance with the new policy and corresponding with the other courses.</p>
The overall program objectives require regular review for clarity and currency.	<p>A five-year cyclical review of all program objectives, overseen by the UMECC, is planned to commence in September 2012. Reviews will be structured around each CanMEDS role.</p>
Learner crowding is perceived on some rotations (Obstetrics & Gynaecology and Surgery).	<p>The relevant Department Chairs are fully engaged in addressing this issue.</p> <p>The launch of new sites in Obstetrics &amp; Gynaecology and the elimination of the Surgery Year 4 core clerkship are expected to reduce problems of learner overcrowding.</p> <p>Questions have been added to the rotation evaluations to study the issue more systematically and especially to identify specific locations that may require intervention.</p>
Lack of sufficient, direct observation of students was reported in the Emergency Medicine, Surgery, and Obstetrics & Gynaecology rotations.	<p>The course directors for these rotations are implementing specific measures to ensure students are receiving adequate direct observation, and are monitoring the efficacy of these interventions with appropriate evaluation forms.</p>
Review of student assessment methodologies is rigorous but needs to occur on a shorter cycle.	<p>The ESAC terms of reference are being revised to reduce the review cycle to three years.</p>
Residents are evaluated on their teaching skills by their faculty supervisors, but more evaluation by the students they teach is desirable.	<p>A program-wide plan for formal student evaluation of residents' teaching abilities in every clinical clerkship in which residents participate has been developed by UME in partnership with the Office of Postgraduate Medical Education and launched in January 2012.</p>
In the past, some course grades were not released to students within six weeks.	<p>A new policy has been implemented to codify pre-existing expectations requiring the release of course grades within six weeks of the conclusion of the course or rotation. A simplified procedure to better enable efficient release of grades has been created. Regular monitoring of adherence has been implemented, and to date, in 2011-12, greater than 98% adherence has been achieved.</p>

<b>EDUCATIONAL PROGRAM</b>	
A survey of recent graduates (current PGY1s and PGY2s) revealed several strengths but also three areas for which only a minority of respondents were satisfied with their preparation for residency: prescription of nutritional management, technical skills, and participation in palliative care management.	The results of the survey became available in mid-December 2011 and are being thoroughly analyzed by the UMECEC and the other curriculum committees. Of note, nutrition and palliative care have not received concerning ratings in recent years on the CGQ. Teaching around nutritional prescribing will be enhanced in the Clerkship in the current academic year, under the leadership of the Deputy Clerkship Director. Teaching in palliative care has been strengthened by a new session in the Transition to Residency, and further exposure will be explored by the Clerkship Committee. The reported deficit in technical skills requires further specification, and therefore feedback from students is being sought via the new learning environment survey.
Students expressed concern on the ISA about their scheduled hours and resulting workload.	Policies about total scheduled hours in Preclerkship and on-call frequency and total daily work-hour limits in Clerkship have been adopted, and adherence is being carefully monitored. Further changes in the Preclerkship are being explored for implementation in 2012-13, under the leadership of the Preclerkship Director.
Students identified specific curriculum weaknesses in the Determinants of Community Health courses in both first and second year, and in the Surgery clerkship.	A comprehensive approach to addressing the concerns in these courses has been pursued by the course directors and course committees, and details of the responses have been communicated to students. The UME Curriculum Evaluation Committee has launched comprehensive course reviews of the DOCH-2 and Surgery courses. A DOCH Review Steering Group has been established. Teachers from the Clinical Science Sector Departments have been recruited to provide additional teaching in population and public health. Each division in Surgery is identifying a leader in undergraduate medical education, as well as a core group of highly committed, expert and enthusiastic teachers to fully address the weaknesses in this course.
Students have identified insufficient unscheduled time in the Preclerkship.	A policy has been adopted that requires a minimum of one half-day free each week on average, and limiting the total scheduled hours. Further limits on scheduled time are being explored for implementation in academic year 2012-2013.

<b>MEDICAL STUDENTS</b>
<b>Areas of strength</b>
1. Large applicant pool with a high rate of offers of acceptance that speaks to the desirability of the program.
2. An admissions process that adequately balances academic and non-academic qualities, attracts excellent and qualified candidates, and produces a diverse student body with respect to gender and ethnicity.
3. Significantly expanded Office of Health Professions Student Affairs with counsellors for personal, career, and academic assistance.
4. User-friendly, online, electives application and registration system.
5. Significant increases in the level and types of financial aid funded directly by the Faculty. Increasing fundraising success to support student bursaries.
6. Very supportive Office of Student Financial Services.
7. "Red Button" emergency/crisis information feature on the UME website, with links from the Portal. ( <a href="http://www.md.utoronto.ca/redbutton">www.md.utoronto.ca/redbutton</a> )
8. New <i>Teacher</i> and <i>Student Handbooks</i> that comprehensively present information on all aspects of the program, targeted to their specific user groups, and packaged in a user-friendly format. ( <a href="http://www.md.utoronto.ca/handbook">www.md.utoronto.ca/handbook</a> )

<b>MEDICAL STUDENTS</b>	
9. Lower rate of student mistreatment than the national average, as reported on the CGQ every year since the last accreditation.	
<b>Areas for improvement</b>	<b>Actions taken</b>
Admissions Criteria require more regular, cyclical review.	A comprehensive review of all admissions' tools is underway. The Office of Admissions & Awards has launched several research studies, including multiple sampling methodologies for the file review and enhanced formal structure of interviews. The criteria for admission are being systematically reviewed, and the new terms of reference of the Admissions Committee explicitly identify this as a responsibility.
Admissions-related assessments have not been systematically correlated with medical school outcomes.	The Admissions Committee has launched a quality assurance process for tracking admissions variables and programmatic outcomes.
Existing pipeline programs focus exclusively on high school (or younger) students.	The development of new pipeline programs with intake at the undergraduate (Bachelor) level is being explored by the Office of Health Professions Student Affairs and the Office of Admissions & Awards.
The existing pipeline programs have not systematically tracked participants' outcomes.	A program is in development to systematically monitor the outcomes of the Summer Mentorship Program participants, and to maintain contact with them and provide additional opportunities for enrichment.
The Faculty needs to more systematically monitor its learning environment, including teacher professionalism.	The existing evaluation of teacher professionalism has been augmented and harmonized across all courses in the program. An evaluation of the learning environment has also been introduced into all clerkship rotations. The school is participating in the four-year longitudinal Learning Environment Study of the AAMC. <i>The Standards of Professional Behaviour for Medical Clinical Faculty</i> are now highlighted in the <i>UME Student and Teacher Handbooks</i> . The Associate Dean Equity & Professionalism will issue an annual report on professionalism in the learning environment, based in part on incidents reported by students.
Students report some uncertainty as to the rules pertaining to their assessment, promotion, and professionalism evaluation.	The UME website has been reorganized to provide clearer entry points to the relevant policies. These have also been highlighted in the <i>Student Handbook</i> . A new policy that comprehensively describes existing practices for grading, promotion, and dismissal was adopted and disseminated in 2012.
Students have reported a need for more financial counselling.	Appointments for financial counselling by the Office of Admissions and Awards have been proactively offered to all first-year students in 2011-12. More resources have been made available online and financial webinars have been held. The Student Financial Services website is being redesigned to more explicitly address student financial matters of concern. Residents are also being involved in new sessions to provide information to students about their perspective on financial issues facing medical students.
Students have expressed a need for more career counselling.	The Office of Health Professions Student Affairs has significantly augmented its career counselling services in the last year. Many Clinical Departments have developed best practices that include recruitment of dedicated faculty who provide career mentorship and support for related student interest groups.

<b>MEDICAL STUDENTS</b>	
Increased central counselling to students about elective choices is needed.	The Office of Electives is being reorganized to provide augmented administrative support and to allow for individual counselling meetings with all students prior to the election selection deadline.
The procedure for management of student injury (e.g. needlestick) was not sufficiently clear.	A new policy and flowchart have been created and widely publicized to students and their teachers. An agreement on the procedures to be followed and the shared responsibilities for management of such incidents between the Faculty of Medicine and the hospitals has been added to affiliation agreements.
Mechanisms for students to report mistreatment are not sufficiently clear and available to students and faculty, and as a result students may not report mistreatment or their reports may not be channelled appropriately.	A new policy and flowchart stipulating the protocol, including an online reporting form, were created and widely publicized to students and teachers. A procedure for tracking of incidents and annual reporting was established. The new “Red Button” reference feature on the UME website includes a link to advice about procedures to follow in the event of mistreatment or witnessing other unprofessional behaviour. The UME Teacher and Student Handbooks with clarity on reporting continue to be disseminated.
Students lack clarity about procedures related to extra work and remediation in some courses.	A new policy codifying existing practices has been adopted in 2012 that comprehensively describes the circumstances under which extra work and remediation are required. Another policy relating to course descriptions requires that courses establish and publicize their specific expectations for satisfactory performance, and the nature of extra work and remediation that typically will be applied. This policy was implemented in 2011-12.
There was insufficient study space at the Medical Sciences Building (MSB).	Space, including computer access, at the Discovery Commons for after-hours study was secured. Opening hours at the Gerstein Science Information Centre next door to the MSB were extended on Sunday mornings, and also prior to examinations on Friday evenings. New dedicated and purpose-built study space for 150 medical students opened in January 2012 at 263 McCaul St., across the street from MSB.

<b>FACULTY</b>	
<b>Areas of strength</b>	
1. <i>Policy for Clinical Faculty</i> that has given appropriate status to clinical faculty.	
2. Clear framework of policies related to faculty (e.g., on appointments, promotion, conflicts of interest, professional behaviour).	
3. Stable and sufficient funding to support teaching (e.g., alternate funding plan, community preceptor payments).	
4. Substantial faculty development available through multiple channels, including the opportunity to participate in longitudinal certificate programs such as the Master Teacher Program and Education Scholars Program.	
5. Significant weight given to teaching in promotion process.	
<b>Areas for improvement</b>	<b>Actions taken</b>
Faculty members required a more consolidated source of information about the UME program.	A comprehensive <i>UME Teacher Handbook</i> has been created, launched, and widely publicized.
Communication to faculty members about Faculty	As a major priority under the new Strategic Plan, the Dean has established a new Office of Strategic Communications and External Relations (OSKER),

<b>FACULTY</b>	
governance (including Faculty Council) and management issues is challenging, as is the receipt of feedback from faculty.	which will launch improved approaches to communication via electronic (including social) media across the entire Faculty of Medicine, working closely with all senior leadership. One major priority of OSCER is communication with faculty at large about such issues as important developments in the Faculty, key performance indicators, and the outstanding achievements of their colleagues, students, and staff. In addition, OSCER will solicit meaningful feedback and advice from all constituents and partners. Faculty Council revitalization is underway, and changes to improve communication and transparency have been instituted, including the public posting of draft minutes and supporting materials.
There are inconsistent faculty development programs across Departments	Departments with best practices in faculty development have been identified, and those practices have been highlighted with Chairs of other Departments in personal meetings with the Vice-Dean UME. The Chairs have committed to the Vice-Dean and the Dean to address any identified gaps in their current offerings. The Centre for Faculty Development is working closely with Departments to provide support and specific tailored programs for UME needs.
Feedback to faculty members about their teaching needs to be more timely and more consistently reviewed by Department Chairs or their designates.	A new UME policy requiring provision of feedback to teachers within three months of the teaching episode was adopted in 2011. The Dean has directed Department Chairs to ensure that their faculty have reviews of their teaching performance on a regular basis.

<b>EDUCATIONAL RESOURCES</b>	
<b>Areas of strength</b>	
1. Wide range of clinical faculty participating in the UME program.	
2. Strong financial support provided to UME from the Faculty, practice plans, and hospitals.	
3. Very supportive information technology unit (Discovery Commons) that focuses on educational program facilitation and in-house capability for innovations and solutions.	
4. New capital projects for medical education at multiple affiliated sites.	
5. The U of T campuses, including excellent athletic facilities, academic and library resources, and a safe learning environment.	
<b>Areas for improvement</b>	<b>Actions taken</b>
Educational infrastructure resources at the Sunnybrook Health Sciences Centre have been identified as sub-optimal.	Multiple improvements to all aspects of the facility at Sunnybrook have been made, and a comprehensive capital plan for education space is being finalized in the Spring of 2012
Minimum infrastructure standards have not been articulated at a granular level for the clinical clerkships.	The Clerkship Committee is developing rotation-specific minimum infrastructure standards to be provided to each site hosting a rotation.
Qualitative observations on the CGQ indicate that some students find the size of certain patient care teams to be too large, leading to reduced opportunity for patient care.	The Clerkship Committee is examining this explicitly in 2011-12 on the clerkship rotation evaluation forms asking students about access to a sufficient variety of patients and technical procedures to meet learning objectives. Patient encounter logging data will also be used to inform the analysis and any required response. Improved understanding of the access on specific rotations and at particular sites will direct effective intervention by the Clerkship course directors. A policy on the comparability of experiences was adopted in 2011-12.

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## APPENDIX A

### Membership of the Self-Study Task Force and Self-Study Committees

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*Note: Faculty members' Department, alumni and students' year of graduation, and administrative staff members' office or position are indicated in parentheses beside their name.*

#### A. Self-Study Task Force

**Chair:** Dr. Martin Schreiber (Medicine)

Senior Academic Coordinator for the LCME/CACMS Accreditation

##### **Self-Study Committee Chairs:**

- Dr. Avrum Gotlieb (Laboratory Medicine & Pathobiology)  
Chair of the Self-Study Committee on the Institutional Setting – Governance & Administration
- Dr. Norman Rosenblum (Paediatrics)  
Chair of the Self-Study Committee on the Institutional Setting – Academic Environment
- Dr. Trevor Young (Psychiatry)  
Chair of the Self-Study Committee on the Educational Program
- Dr. Adelle Atkinson (Paediatrics)  
Chair of the Self-Study Committee on Medical Students
- Dr. Ken Shulman (Psychiatry)  
Chair of the Self-Study Committee on Faculty
- Dr. Maureen Shandling (Medicine)  
Chair of the Self-Study Committee on Educational Resources

##### **Independent Student Analysis Representatives:**

- Mr. Thomas McLaughlin (Student – Class of 2013)  
Co-Leader of the Independent Student Analysis
- Mr. Howard Meng (Student – Class of 2014)  
Co-Leader of the Independent Student Analysis
- Mr. Kenneth VanDewark (Student – Class of 2012)  
Co-Leader of the Independent Student Analysis
- Mr. Rami Shoucri (Student – Class of 2012)  
Co-Leader of the Independent Student Analysis

##### **Faculty and UME Program Leadership:**

- Dr. Catharine Whiteside (Medicine)  
Dean of Medicine
  - Dr. Jay Rosenfield (Paediatrics)  
Vice-Dean Undergraduate Medical Education
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**B. Self-Study Committee on the Institutional Setting – Governance & Administration**

**Chair:** Dr. Avrum Gotlieb (Laboratory Medicine & Pathobiology)

- Dr. Harvey Anderson (Nutritional Sciences)
  - Dr. Charlie Chan (Medicine)
  - Dr. Louise Lemieux-Charles (Dalla Lana School of Public Health / Dept. of Health Policy, Management & Evaluation)
  - Mr. Mark Miller (Student – Class of 2011)
  - Ms. Kelly Mollon (Student – Class of 2011)
  - Mr. Tim Neff (Chief Administrative Officer, Faculty of Medicine)
  - Dr. Denyse Richardson (Medicine)
  - Dr. Andrea Sass-Kortsak (Health Policy, Management & Evaluation)
  - Dr. Martin Schreiber (Medicine)
  - Dr. Sarita Verma (Family & Community Medicine)
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### **C. Self-Study Committee on the Institutional Setting – Academic Environment**

**Chair:** Dr. Norman Rosenblum (Paediatrics)

- Ms. Diana Alli (Office of Health Professions Student Affairs, Faculty of Medicine)
  - Dr. Don Branch (Medicine)
  - Ms. Lisa Caulley (Student – Class of 2012)
  - Ms. Deborah Coombs (Office of Undergraduate Medicine Admissions & Awards)
  - Dr. George Fantus (Medicine)
  - Mr. Chris Gilchrist (Student – Class of 2012)
  - Ms. Sofia Khan (Student – Class of 2012)
  - Dr. Stephen Matthews (Physiology)
  - Dr. David McKnight (Anesthesia)
  - Mr. Enoch Ng (Student – MD/PhD program)
  - Dr. Paul Philbrook (Family & Community Medicine)
  - Dr. Robin Richards (Surgery)
  - Dr. Martin Schreiber (Medicine)
  - Dr. Fran Scott (Dalla Lana School of Public Health)
  - Dr. Ivan Silver (Psychiatry)
  - Dr. Sal Spadafora (Anesthesia)
  - Dr. Cynthia Whitehead (Family & Community Medicine)
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## **D. Self-Study Committee on the Educational Program**

**Chair:** Dr. Trevor Young (Psychiatry)

- Dr. Jennifer Blake (Obstetrics & Gynaecology)
  - Dr. Rick Hegele (Laboratory Medicine & Pathobiology)
  - Dr. Brian Hodges (Psychiatry)
  - Dr. Joyce Nyhof-Young (Professional Medical Educator)
  - Dr. Lynn Wilson (Family & Community Medicine)
  - Dr. Roy Baker (Biochemistry)
  - Dr. Stacey Bernstein (Paediatrics)
  - Dr. Kate Bingham (Alumna – Class of 2006)
  - Dr. Paolo Campisi (Otolaryngology – Head & Neck Surgery)
  - Dr. George Christakis (Surgery)
  - Mr. Tim Flannery (Undergraduate Medical Education Curriculum Office)
  - Dr. Nasir Jaffer (Medical Imaging)
  - Dr. Eleanor Latta (Laboratory Medicine & Pathobiology)
  - Mr. Mathew Leonardi (Student – Class of 2012)
  - Dr. Katherine MacRury (Professional Medical Educator)
  - Dr. Filomena Meffe (Obstetrics & Gynaecology)
  - Mr. Howard Meng (Student – Class of 2014)
  - Dr. Roberto Mendoza-Londono (Paediatrics)
  - Dr. Michelle Olah (Student – Class of 2013)
  - Dr. Dupe Oyewumi (Student – Class of 2011)
  - Dr. Richard Pittini (Obstetrics & Gynaecology)
  - Dr. Anita Rachlis (Medicine)
  - Dr. Martin Schreiber (Medicine)
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- Mr. Rami Shoucri (Student – Class of 2012)
  - Dr. Maria Tassone (Physical Therapy)
  - Ms. Elizabeth Taylor (Undergraduate Medical Education Curriculum Office)
  - Mr. Devon Turner (Student – Class of 2011)
  - Dr. David Wheler (Family & Community Medicine)
  - Dr. Ian Witterick (Otolaryngology)
  - Dr. Cindy Woodland (Pharmacology & Toxicology)
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## **E. Self-Study Committee on Medical Students**

**Chair:** Dr. Adelle Atkinson (Paediatrics)

- Dr. Pier Bryden (Psychiatry)
  - Dr. William Coke (Medicine)
  - Ms. Jane Dunstan (Student – Class of 2012)
  - Dr. Mara Goldstein (Psychiatry)
  - Mr. Bill Gregg (Undergraduate Medical Education Office of Student Finances)
  - Dr. Mark Hanson (Psychiatry)
  - Dr. Karl Iglar (Medicine)
  - Ms. Judy Irvine (Faculty Registrar)
  - Dr. Leslie Nickell (Family & Community Medicine)
  - Dr. Martin Schreiber (Medicine)
  - Mr. Ahmed Taher (Student – Class of 2014)
  - Mr. Kenneth VanDewark (Student – Class of 2012)
  - Dr. Ian Wagg (Alumnus – Class of 2009)
  - Dr. Mike Wiley (Surgery – Anatomy)
  - Ms. Elizabeth Yeboah (Student – Class of 2011)
  - Dr. Molly Zirkle (Otolaryngology)
-

## **F. Self-Study Committee on Faculty**

**Chair:** Dr. Ken Shulman (Psychiatry)

- Dr. Dee Ballyk (Surgery – Anatomy)
  - Dr. John Bohnen (Surgery)
  - Mr. Corey Boimer (Student – Class of 2012)
  - Dr. Alison Buchan (Laboratory Medicine & Pathobiology)
  - Dr. Kymm Feldman (Family & Community Medicine)
  - Ms. Cassandra Greenberg (Student – Class of 2014)
  - Dr. Norman Hill (Surgery)
  - Dr. Jackie James (Medicine)
  - Dr. Jim Kitchens (Medicine)
  - Dr. Marcus Law (Family & Community Medicine)
  - Dr. Karen Leslie (Paediatrics)
  - Dr. Susan Lief (Psychiatry)
  - Dr. Danny Panisko (Medicine)
  - Mr. Dale Podolsky (Student – Class of 2012)
  - Dr. Ken Pritzker (Laboratory Medicine & Pathobiology)
  - Dr. Reinhart Reithmeier (Biochemistry)
  - Ms. Jean Robertson (Director of Human Resources, Faculty of Medicine)
  - Dr. Paul Sanghera (Ophthalmology)
  - Dr. Rayfel Schneider (Paediatrics)
  - Dr. Martin Schreiber (Medicine)
  - Dr. Martina Trinkaus (Medicine)
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## **G. Self-Study Committee on Educational Resources**

**Chair:** Dr. Maureen Shandling (Medicine)

- Dr. Pamela Coates (Paediatrics)
  - Dr. Mary Anne Cooper (Medicine)
  - Ms. Nancy Edwards (Chief Financial Officer & Faculty Comptroller, Faculty of Medicine)
  - Dr. Patricia Houston (Anesthesia)
  - Ms. Kathryn Isaac (Student – Class of 2011)
  - Ms. Sandra Langlands (Director of the Gerstein Science Information Centre, University of Toronto Libraries)
  - Ms. Olga Malinowska (Student – Class of 2014)
  - Dr. Golda Milo-Manson (Paediatrics)
  - Ms. Reena Mohan (Student – Class of 2013)
  - Dr. Miralem Mrkonjic (Student – Class of 2013)
  - Dr. Rick Penciner (Family & Community Medicine)
  - Mr. Wes Robertson (Director of Information Technology, Faculty of Medicine)
  - Ms. Heather Taylor (Director of Facilities Management & Space Planning, Faculty of Medicine)
  - Dr. Riet van Lieshout (Undergraduate Medical Education Business & Administrative Manager)
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