REPORT OF THE TASK FORCE ON MEDICAL ACADEMIES

EXECUTIVE SUMMARY

Since the Academy System was originally established in 1992, it has continued to evolve and is now comprised of four Academies: three in operation (Fitzgerald, Peters-Boyd, and Wightman-Berris) and one set to launch in August 2011 (Mississauga Academy of Medicine). Although indications are that the Academies function very well for learners in undergraduate medical education, an August 2009 review highlighted the strengths of the existing Academy System and suggested further review of the model's vision and structure to further integrate it into both the community and the other education programs within the Faculty of Medicine.

In August 2010, the Dean of the Faculty of Medicine and the Vice-Dean, Undergraduate Medical Education struck the Task Force on Medical Academies, which they co-chaired. The Task Force members included senior academic, administrative and student leaders from the Faculty of Medicine, University of Toronto, fully affiliated[1] and community affiliated [2] partner institutions. The Task Force met from October 2010 through to February 2011. Three working groups were established by the Task Force; the first conducted a gap analysis that identified strengths, weaknesses, opportunities and threats (SWOT) relevant to the Academy System; the second group focused on the issue of integration among the affiliated hospitals and across the spectrum of MD education; and, the third group explored the academic accountability framework for resource management and reporting. Shortly prior to the launch of the Task Force, the Medical Society undertook an independently organized concurrent perspective study of the Academy System towards the development of an official Medical Society position paper, which substantially informed the work of the Task Force.

The core value of the Faculty of Medicine is improving health. This value is held jointly by our partner affiliated hospitals. It is vital that our learners, faculty members and staff assume responsibility for improved health outcomes through the impact of excellence and innovation in education and the Academy System is fundamental for enabling this joint mission. In order to sustain and enhance this mission, the Task Force on Academy Review offers the following **recommendations and implementation tactics** to the Faculty of Medicine:

[1] Baycrest Centre for Geriatric Care, Holland Bloorview Kids Rehab, Centre for Addiction and Mental Health, Hospital for Sick Children, Mount Sinai Hospital, St. Michael's Hospital, Sunnybrook Health Sciences Centre, Toronto Rehabilitation Institute, University Health Network, Women's College Hospital

[2] Bridgepoint Health, Credit Valley Hospital, George Hull Centre for Children and Families, Hincks-Dellcrest Centre, Humber River Regional Hospital, Lakeridge Health Network, Markham-Stouffville Hospital, Mental Health Centre Penetanguishene, North York General Hospital, Ontario Shores Centre for Mental Health Sciences, Providence Healthcare, The Royal Victoria Hospital, The Scarborough Hospital, Southlake Regional Health Centre, St. John's Rehabilitation Hospital, St. Joseph's Health Centre, Surrey Place Centre, Toronto East General Hospital, Trillium Health Centre, West Park Healthcare Centre

FOCUS ON STUDENTS:

1. Ensure that all students are assigned clinical placements over their four-year program duration that provide comparable opportunities for clinical learning experiences, balancing travel requirements and expense.

a. Implementation will require the creation of a centrally managed system by which all student clinical placements can be mapped, organized, individually customized and allocated, reflecting comparable clinical learning opportunities and travel requirements for all students across all four years. As a next step, student and faculty experts in systems modelling design will be engaged with academic leaders to enable this recommendation and develop a new system for assignment of clinical placements that will meet accreditation requirements and create best practices. Students will be engaged in this process to provide advice and be directly involved in decisions about their clinical placements.

b. Minimize mid-day travel for students and explore enhanced transportation services where needed.

c. Investigate options for support of students with extraordinary travel requirements.

2. Ensure that the clinical learning roles and responsibilities of medical students are comparable among Academy sites.

a. Utilize multiple sources of information, including existing clinical data sources at hospitals and clinical log systems to monitor patient loads. This will ensure reasonable and evenly distributed clinical learning experiences in each discipline among the Academies.

b. Implement routine and comprehensive student evaluations of the academy experience, separate from and in addition to course and teacher evaluations.

FOCUS ON FACULTY MEMBERS

3. Communicate and demonstrate effectively to clinical faculty the value of the medical Academy; how it enhances the student experience, the faculty role in their University clinical department hospital division, and how it potentially may contribute to individual faculty members' professional development.

a. Engage stakeholders in developing a statement of the unique clinical learning opportunities available at each Academy that is aligned with hospital health care programs and strengths.

b. Ensure that the roles/responsibilities of medical students at all clinical sites are understood by all health professionals interacting with learners.

c. Develop and articulate the value proposition of the medical Academy for those who teach.

4. Facilitate a working relationship between the leadership of the University Clinical Departments and the Academies.

a. Enhance relationships between the Academy and University Departments/Divisions and Hospital Departments/Divisions.

FOCUS ON ACADEMY

5. Ensure that the Faculty of Medicine's Academy System effectively integrates and values educational experiences for students and teaching experiences for faculty members across all University of Toronto fully-affiliated and community-affiliated hospital partners.

a. Develop inter-institutional relationships preferably through letters of agreement among partner institutions to provide clarity about the oversight and management of the Academy System. Reference these new Academy partnership agreements within the soon-to-be renegotiated formal University/hospital affiliation memoranda.

b. Identify the role, authority and reporting relationships of Academy Directors to Academy teaching sites in a structured expanded Academy concept.

c. Articulate minimum infrastructure standards, in accordance with the Committee on Accreditation of Canadian Medical Schools (CACMS)/ Liaison Committee on Medical Education (LCME) accreditation standards and Professional Association of Residents and Interns of Ontario (PAIRO) guidelines for all clinical training sites that include careful attention to student safety/wellness.

d. Establish an integrated academic administrative system using information technology for all MD students and trainees across all sites, including, but not limited to, systems for email, badge identification, and videoconferencing.

6. Establish a clear accountability framework for funds used to support Undergraduate Medical Education from all sources at the Academy.

a. Strike a steering committee composed of staff, students and faculty members to establish a standardized accountability framework that tracks revenues and expenses, including support for teaching, across the Academy System.

REPORT OF THE TASK FORCE ON MEDICAL ACADEMIES

1.0 BACKGROUND

The Medical Academy system for Undergraduate Medical Education at the University of Toronto was established in October 1992. This platform of curriculum delivery emerged as a recommendation from the 1990 Committee on Accreditation of Canadian Medical Schools (CACMS) and the Liaison Committee on Medical Education (LCME) Accreditation of the Undergraduate Medical Education (MD) program, which recommended a more decentralized delivery structure of the medical school curriculum.

The response of the Faculty of Medicine at the time was to establish the Academy structure aiming to improve the student experience, provide a better match between enrollment and resources for teaching and student support, and enhance partnerships with the University fully affiliated acute care hospitals. Four Academies (Fitzgerald, Boyd, Wightman and Peters) were formed; and were reviewed in detail four years later, in 1996 prior to accreditation. Over the past 15 years, the Academy System has evolved, merging into three Academies in 1998 (Fitzgerald, Peters-Boyd, and Wightman-Berris). The new Medical Academy in Mississauga (MAM) is set to launch in August 2011.

Although indications are that the Academies function very well for learners in undergraduate medical education as indicated by the 2004 CACMS/LCME accreditation review, and the 2010 external review of the Faculty of Medicine, rapid changes in medical education and health care delivery models, and increased use of community settings prompted the decision to undertake a detailed review of the Academy System. The Distributed Education Review in August 2009 highlighted the strengths of the existing Academy System and suggested a review of the model's vision and structure to further integrate it into both the community and the other education programs within the Faculty of Medicine. The core value of the Faculty of Medicine is improving health. This value is held jointly by our partner affiliated hospitals. It is vital that our learners, faculty members and staff assume responsibility for improved health outcomes through the impact of excellence and innovation in education and the Academy System is fundamental for enabling this joint mission.

Many external factors provide context for this review, including but not limited to: the AFMC Future of Medical Education Report (FMEC) from 2010; the Faculty of Medicine review in 2010; the launch of the Mississauga Academy in September 2011; the renegotiation of hospital affiliation agreements in 2011-12; and, the upcoming CACMS/LCME Undergraduate Medical Education accreditation in 2012. New, more stringent accreditation requirements pertaining to the Academy System are available in Appendix A in the LCME document 'Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree June 2010.' These conditions set up a framework by which the Academy structure and function could be reviewed in detail within the context of integrated (medical) education.

In August 2010, the Dean of the Faculty of Medicine and the Vice-Dean, Undergraduate Medical Education struck the Task Force on Medical Academies, which they co-chaired. The Task Force members included senior academic, administrative and student leaders from the Faculty of Medicine, University of Toronto, fully affiliated[3] and community affiliated [4] partner institutions.

1.1 TERMS OF REFERENCE

The following terms of reference were approved by the Task Force after an initial discussion and subsequent revision for clarity:

The Taskforce on Medical Academies will:

1. Identify the existing supports and gaps within the Academy System by evaluating its strengths, weaknesses, opportunities, and threats, using as reference points: a) the Liaison Committee on Medical Education (LCME) Accreditation standards; and, b) the FMEC recommendations.

2. Examine the current alignment of the undergraduate medical education curriculum objectives and outcomes with the mission and vision of the affiliated hospitals and other teaching sites, focusing on evidence-based best practice and quality care delivery. Recommend steps for improved reflection and responsiveness of the undergraduate curriculum delivery in the context of the Academy System.

3. Review the current state of integration of undergraduate medical education and articulate directions for improvement within the following contexts: a) among all 10 of the fully- affiliated hospitals; b) among the fully-affiliated and community-affiliated hospitals; c) across other community teaching sites and d) across the continuum of medical education (undergraduate, postgraduate, continuing education).

4. Investigate the role of the Academy System to facilitate inter-professional education in partnership with the affiliated hospitals and their communities of inter-professional care.

5. Provide advice to the Faculty of Medicine, including the Clinical Departments, for improving the Undergraduate Medical Education resource accountability framework including aligning academic physician remuneration and other resource outputs with undergraduate medical education deliverables throughout the Academy System.

[3] Baycrest Centre for Geriatric Care, Holland Bloorview Kids Rehab, Centre for Addiction and Mental Health, Hospital for Sick Children, Mount Sinai Hospital, St. Michael's Hospital, Sunnybrook Health Sciences Centre, Toronto Rehabilitation Institute, University Health Network, Women's College Hospital

[4] Bridgepoint Health, Credit Valley Hospital, George Hull Centre for Children and Families, Hincks-Dellcrest Centre, Humber River Regional Hospital, Lakeridge Health Network, Markham-Stouffville Hospital, Mental Health Centre Penetanguishene, North York General Hospital, Ontario Shores Centre for Mental Health Sciences, Providence Healthcare, The Royal Victoria Hospital, The Scarborough Hospital, Southlake Regional Health Centre, St. John's Rehabilitation Hospital, St. Joseph's Health Centre, Surrey Place Centre, Toronto East General Hospital, Trillium Health Centre, West Park Healthcare Centre

6. Ensure that student engagement and the Medical Society's position paper on the Academy System is front and center in the review process.

7. Report to the Faculty of Medicine in draft for consultation by February 28, 2011 with final report no later than April 15, 2011.

1.2 TASKFORCE COMPOSITION

Co-Chairs:

Jay Rosenfield - Vice-Dean, Undergraduate Medical Education, Faculty of Medicine
Catharine Whiteside - Dean, Faculty of Medicine

Members:

2 representative Vice-Presidents, Education or Equivalent, TAHSN hospitals currently within the existing Academy structure:
Patricia Houston - St. Michael's Hospital (Fitzgerald)
Maureen Shandling - Mt. Sinai Hospital (Wightman-Berris)

2 representative Vice-Presidents, Education or Equivalent, TAHSN hospital currently not within the existing Academy structure:
David Conn - Baycrest Centre for Geriatric Care
Golda Milo-Manson - Holland Bloorview Kids Rehab

1 representative Vice-Presidents, Education or Equivalent from a community affiliate:
Rick Penciner - North York General Hospital (Peters-Boyd)

2 representatives from Undergraduate Medical Education:
Anita Rachlis - Clerkship Director, UME
Martin Schreiber - Preclerkship Director, UME and Senior Academic Coordinator, Accreditation

4 Academy Directors:
Pamela Coates - Mississauga Academy
Mary Anne Cooper - Peters-Boyd Academy
Jacqueline James - Wightman-Berris Academy
Molly Zirkle - Fitzgerald Academy

4 Faculty of Medicine Vice or Associate Deans:
Mark Hanson - Associate-Dean, Undergraduate Medicine Admissions and Student Finances,
Leslie Nickell - Associate-Dean, Health Professions Student Affairs
Norman Rosenblum - Associate Dean Physician Scientist Programs
Salvatore Spadafora - Vice-Dean, Postgraduate Medical Education

4 Representatives from University of Toronto Clinical Departments:
Brian Hodges – Former Vice-Chair, Education, Department of Psychiatry
David Latter - Vice-Chair, Education and Interim Chair, Department of Surgery
Rayfel Schneider - Associate Chair, Education, Department of Pediatrics
Lynn Wilson - Chair, Department of Family and Community Medicine

3 Student Representatives:
Tom McLaughlin - Medical Society President
Kelly Mollon - Clinical Clerk
Miralem Mrkonjic - Representative from Joint-Academy Review Committee

Director, Centre for Interprofessional Education - Maria Tassone
Faculty Registrar – Judy Irvine

Administrative Support
Dorothy Hou - Office of the Vice-Dean, Undergraduate Medical Education
Morag Paton - Office of the Education Vice-Deans

1.3 METHODOLOGY USED:

The Task Force met from October 2010 through to February 2011. Three working groups were established by the Task Force. The first group led by Dr. Jackie James conducted a gap analysis that identified strengths, weaknesses, opportunities and threats (SWOT) relevant to the Academy System; the second group led by Dr. Leslie Nickell focused on the issue of integration among the affiliated hospitals and across the spectrum of MD education; and, the third group led by Dr. Patricia Houston explored the academic accountability framework for resource management and reporting.

Shortly prior to the launch of the Task Force, the Medical Society, under the leadership of its President, Tom McLaughlin as well as Miralem Mrkonjic and former President Kelly Mollon, undertook an independently organized concurrent perspective study of the Academy System towards the development of an official Medical Society position paper. This report, titled “Student Educational Travel and the Academy System” was published in February 2011 and is available as Appendix E. This paper substantially informed the work of the Task Force and its results are included in this report.

In addition to the members of the Task Force listed above, the SWOT Working Group was supported by an outside consultant, Helena Axler & Associates, contracted to provide liaison and interviewing of key stakeholders. A draft report will be provided to the TAHSN CEOs, as well as to the TAHSN-Education Committee, the Hospital University Education Committee, the Education Committee of Faculty Council and the Dean’s Executive. Following this review, the report will be finalized.

2.0 CURRENT ENVIRONMENT

The Undergraduate Medical Program currently has three academies with a fourth set to open in August 2011. The **Fitzgerald Academy** ("the Fitz") includes St. Michael's and has partnerships with St. Joseph's Health Centre and Bridgepoint Health. The **Peters-Boyd Academy** (PB) includes Sunnybrook Health Sciences Centre and Women's College Hospital and has partnerships with North York General Hospital and with Markham Stouffville Hospital. **Wightman-Berris Academy (WB)** includes University Health Network and Mt. Sinai Hospital and has partnerships with Toronto East General Hospital, Humber River Regional Hospital and Baycrest. The partnerships listed above are informal and have not been established through any specific documentation outlining parameters of that partnership. Finally the **Mississauga Academy of Medicine** (MAM) is set to launch in August 2011 and includes the Mississauga Campus of the University of Toronto, Credit Valley Hospital and Trillium Health Centre.

Some of these hospital partners are fully-affiliated hospitals which have full memberships with the Toronto Academic Health Science Network (TAHSN)[5], some are community affiliated hospitals with associate memberships in TAHSN and some are community affiliates with no formal connection to TAHSN.

These four academies serve as a framework for delivery of clinical curriculum in the MD program, but do not necessarily constitute the sum of where medical students learn and train, or have opportunities to train. There are a number of specialty hospitals that do not currently have affiliations with specific Academies and there are numerous community affiliates that are also not within any formal Academy structure. The Faculty of Medicine leadership, faculty members and students all acknowledge the importance of all of the affiliated sites to the undergraduate medical program as a whole.

Within the current Academy system, the distribution of students for 2010–11 is as follows:

	Preclerkship		**Clerkship**		**Total by Academy**
	Year 1	**Year 2**	**Year 3**	**Year 4**	
Wightman-Berris	110	102	108	103	423
Fitzgerald	72	62	55	53	242
Peters-Boyd	68	65	64	68	265
Totals by year	250	229	227	224	**930**

[5] The Toronto Academic Health Science Network (TASHN) is a collaboration among the 10 academic hospitals fully affiliated with the University of Toronto and the Health Science Faculties.

Projected distribution for Year 1 in September 2011, once MAM opens is as follows:

Wightman-Berris	91
Fitzgerald	54
Peters-Boyd	60
Mississauga	54
Total incoming students	259

Postgraduate trainees and other health professions are not currently integrated in any formal manner with the existing Academy system. Likewise, faculty members do not have a specific Academy 'affiliation' beyond that of the institution in which they teach or practice.

2.1 METHODOLOGY/PROCESS

Each working group had control over their own methodologies.

Group 1: SWOT Working Group members, under its Chair, Jacqueline James, Academy Director, Wightman-Berris included:

David Conn - Baycrest Centre for Geriatric Care
Mark Hanson - Associate-Dean, Admissions and Student Finance, UGME
Judy Irvine - Faculty Registrar
Miralem Mrkonjic - Representative from Joint-Academy Review Committee
Norman Rosenblum - Associate Dean, Physician Scientist Training, UME
Rayfel Schneider - Associate Chair, Education, Department of Pediatrics
Martin Schreiber - Preclerkship Director, UME
Molly Zirkle - Fitzgerald Academy Director

The SWOT working group consultation included interviews (17), focus groups (5) and surveys (2) and provided a snapshot of perspectives across a spectrum of stakeholders, including senior education and administrative leaders, students, course directors, and teaching faculty from across the Academy System. The findings reflect the input of these select individuals and were not to be viewed to be fully representative of all individuals within any particular group.

Group 2: The Integration Working Group, under its Chair, Leslie Nickell, Associate Dean, Health Professions and Student Affairs included:

Pamela Coates - Mississauga Academy Director
Brian Hodges - Vice-Chair, Education, Department of Psychiatry
David Latter - Vice Chair, Education and Interim Chair, Department of Surgery

Tom McLaughlin - Medical Society President
Rick Penciner - Director of Medical Education, North York General Hospital
Maria Tassone - Director, Centre for Interprofessional Education
Lynn Wilson - Chair, Department of Family and Community Medicine

The integration working group, through initial in-depth discussion, developed a framework to approach individual interviews with key stakeholders. Their discussion was also informed by several key documents: the draft Academy Roles/Framework for Governance with Community-Affiliated Teaching Sites: May 5, 2009, the templates for the Affiliation agreements and the TAHSN Task Force on Valuing Academic Performance Jan 21, 2010 report. Individual interviews were conducted by the members of the working group with the following key stakeholders: Hospital CEOs, including fully and community affiliated hospitals and specialty hospitals, Clinical Department Chiefs, Academy Directors, Residency Program Directors, Vice-Dean of PGME, Vice-President of Education, Pre-Clerkship Director, PGME/UME clinical teachers, hospital and University Interprofessional Education leaders, and hospital health disciplines leaders.

Group 3: Accountability Working Group, under its Chair, Patricia Houston, Vice-President, Education, St. Michael's Hospital included:

Maureen Shandling - Mt. Sinai Hospital (Wightman-Berris)
Golda Milo-Manson - Holland Bloorview Kids Rehab

With additional support from:

Anita Rachlis - Clerkship Director, UME
Kelly Mollon - Upper-year student

Data were collected through both survey tools and direct feedback from Academy Directors. A survey was designed and circulated to the Vice Presidents Education at the fully- and community affiliated hospitals, to assess funding sources, their flow, and accountability. Data were also collected with regard to current infrastructure and resources to better understand the similarities and differences, supports and gaps in the successful implementation of an undergraduate medical program. A separate survey was sent to the Clinical Chairs to determine flow of funding to the clinical departments, departmental support for UME and current processes to support physician involvement in UME.

Medical Society Working Group on the Academy System, under the leadership of the Medical Society President, Tom McLaughlin included:

Kelly Mollon - Former Medical Society President
Miralem Mrkonjic- Representative from the Joint-Academy Review Committee
Michelle Olah
Judith Seary

Adrienne Junek
Katie Phillips
Lisa Alexander
Jonathan Fuller

A group of 6 students performed background research in the literature on educational travel and stress, and performed interviews on many key administrative and student leaders. These leaders included the Presidents of Medical Societies across the country (to determine how other schools have tackled similar experiences), staff in the preclerkship and clerkship offices, and all three Academy Directors (or administrative staff in their place). A survey of all students was then created and administered over the month of November 2010. Questions included where students are placed, the amount of time and money spent on traveling, and a series of questions on how students feel about different aspects of the Academy System (support, infrastructure, availability of Academy staff, and organization of schedules).

Respondents to the survey included 277 preclerkship students (58% of preclerkship students) and 139 clerkship students (31% of clerkship students). Incorrectly filled out responses were not included in the analysis. Respondents were evenly distributed across academies and years. The data was analyzed and relevant statistics and charts are included in the body of the main document.

The three Working Groups' full reports and the Medical Society's position paper can be viewed in Appendices B, C, D and E.

The Faculty acknowledges with gratitude the contributions of time and intellect of all Task Force members, and medical students to this critical report.

2.2 WORKING GROUP KEY FINDINGS

Group 1: SWOT

The SWOT Working Group concluded that overall, the Academy System is strong but identified a number of challenges which need to be addressed:

- There are some discrepancies in the learning environment including inequities in travel which influence the individual student experience.

- There is a need for greater clarity around the role and impact of the Academy system in the student experience including a clear vision statement of the Academy system, with goals and objectives for each Academy.

- Academies could have a greater role in facilitating the departmental, interdepartmental and interprofessional collaboration to deliver innovations in curriculum and to support the FMEC recommendations.

- Minimum standards for facilities and infrastructure for the Academies should be articulated, with a system in place to ensure that these standards are achieved and recognized when these standards are met and exceeded.

Group 2: Integration
The Integration Working Group found the following statements to be true and require action to be taken in order to address them:

- There is strong support to maintain the Academy structure. Academies provide an important 'home base' for students which improve the overall student experience.

- There is a lack of understanding among the general faculty members about the Academy structure and function and their role within an Academy, therefore, more education about Academies should be provided broadly.

Furthermore, this working group proposed the following recommendations:

- Strategies should be developed to address 'hidden curriculum' issues and improve communication between academies, and both fully and community-affiliated hospitals.

- Increase the sense of belonging for the community faculty members, thereby supporting a partnership model.

- Further discussion and consultation is needed to develop a comprehensive understanding of the mechanisms by which academies can be formally aligned with a variety of institutions.

- Roles and responsibilities, and the interrelationships between Academy Directors, Department Chairs and Chiefs, and hospital Vice-Presidents of Education requires further exploration and discussion.

In addition to these notes, through its analysis, the Integration Working Group also concluded the following:

- Academies are recognized as a good conduit for the Interprofessional Education (IPE) learning experience, however, it is not recommended to create a formal Academy role for 'governing' the IPE curriculum delivery.

- There is not a strong indication to expand the Academies into the PGME arena; however, there is an opportunity to enhance those relationships that already exist.

Group 3: Accountability
Based on their analysis, the working group concluded the following key points:

- There is inconsistency and lack of transparency in elucidating the sources of funding for undergraduate medical education.

- A small number of disparities exist among hospitals in infrastructure/resources within each area: community affiliated, fully affiliated with an Academy and fully affiliated hospitals without an Academy. There is also a disconnect between the

perceived disparities reported by medical student representatives and the survey results reported through the Vice-Presidents Education offices.

In addition to these key findings; they recommend the following:

- Further work to increase transparent documentation of all sources of funding, policies to provide equity in at least the external funding of institutions hosting University students, and the establishment of consistent expectations for use of such resources.

- that a Steering Committee with student, hospital and University representation be formed to address these issues with an emphasis on processes to ensure that the student's experience is both excellent and equitable across all teaching sites.

2.3 MEDICAL SOCIETY POSITION PAPER FINDINGS

Key findings and recommendations from the Medical Society Working Group on the Academy System appear in truncated form here:

- Maintain diversity of learning experiences within full-affiliated and community-affiliated clinical teaching sites; including balancing near and far placements.

- Ensure equitable travel time and subsequent cost to students. Ensure access to transportation solutions where possible and in accordance with wellness and safety needs of the students.

- Plan teaching schedules and communicate to students about their placement location well in advance.

- Strike a working group composed of students and faculty members to explicitly define minimal complement of educational resources to be provided at each site.

- Create a uniform hospital identification system allowing smoother transitions between and among sites.

- Routine evaluations of courses which include questions about the Academy System and site culture.

- Promote student-centred learning and the valuing of students at each Academy site.

3.0 TASK FORCE GUIDING PRINCIPLES FOR RECOMMENDATIONS

1. Delivery of the curriculum at clinical sites requires the availability and offering of comparable opportunities for all students across all four years.

2. Continual student evaluation and input are necessary to identify the challenges and to implement feasible solutions, including (but not limited to) the management of clinical placement assignments, travel and Academy resources.

3. Success of the Academy relies on collaboration and cooperation among the institutional leadership and faculty of partnered clinical sites and the University Clinical Departments.

4. The Academies must reflect the overall *mission* and *vision* of the Undergraduate Medical Education Program and the Faculty of Medicine, and build on the core *values* of the affiliated hospitals.

5. Teaching medical students within the Academy should be so highly valued that all stakeholders can articulate and champion the relevance of this unique learning environment.

4.0 TASKFORCE RECOMMENDATIONS

Key recommendations and findings of the Taskforce on Medical Academies can be focused around three primary themes, *students, faculty members and the Academy structure and function*. First and foremost, the Academy structure has been developed to enhance the student experience. Outstanding student experience is enabled by our dedicated teachers. In turn, the Academy structure and function must be considered valuable and strongly supported by our faculty members who teach medical students. The Academy structure and function must integrate well within a complex health care delivery network.

1. Focus on Students:

As the primary vehicle for delivery of the clinical curriculum in the MD program, the Academies must focus on improving the student experience as a central core goal. The following recommendations address the current barriers to an optimal medical student experience within the Academy settings.

Recommendation 1:
Ensure that all students are assigned clinical placements over their four-year program duration that provide comparable opportunities for clinical learning experiences, balancing travel requirements and expense.

Implementation Tactics for Recommendation 1:
a. Implementation will require the creation of a centrally managed system by which all student clinical placements can be mapped, organized, individually

customized and allocated, reflecting comparable clinical learning opportunities and travel requirements for all students across all four years. As a next step, student and faculty experts in systems modelling design will be engaged with academic leaders to enable this recommendation and develop a new system for assignment of clinical placements that will meet accreditation requirements and create best practices. Students will be engaged in this process to provide advice and be directly involved in decisions about their clinical placements.

Rationale:
Medical students have indicated that, although they value the diversity of experiences they receive in pre-clerkship and clerkship training across the fully affiliated and community affiliated teaching sites, the current system faces some challenges. Inequitable burden is placed on specific groups of learners when asked to travel either more often or farther afield than other groups of learners, causing loss of valuable student learning time, and added expense.

The Undergraduate Medical Education program provides its students with a large variety of contexts within its existing Academy and non-Academy sites. However, the distribution of learners to these sites is not currently organized and managed centrally. While a portion of the placements within the clerkship schedule are modelled centrally, placements related to several University Clinical Departments are organized independently resulting in learning experiences that may provide too much of one type of experience and too little of another while what is needed, and desired is a balance between community, academic, specialist and generalist experiences. Some schedules are provided to students in a 'just-in-time' manner allowing for little planning or organization on their part. Students express a desire to have these placement schedules fixed and provided to them well in advance of the placement itself. Similarly, assignment to a specific Academy should be communicated to new students as soon as possible after admission to allow them time to adequately prepare for their studies and organize their time and commitments accordingly. Earlier Academy assignment, should also serve to ease anxieties experienced by all students who are coping with the complexities of a multi-sited teaching and learning environment. Pedagogic rationale, arising from the need for multiple learning contexts for students, ranging from community to tertiary hospitals, must govern an equitable allocation system for students within the Academy sites and across multiple learning environments. This would be consistent with the FMEC MD recommendation regarding diversified learning contexts (see Appendix F).

Appropriate, centralized modelling of student clinical placements would enable UME to ensure equitable distribution of students to a variety of site placements that fulfills their curriculum requirements. Moreover, a centralized model would permit a level of customization for each student to pursue their own scholarly interests as part of a four year curriculum. Application of an effective and efficient modelling process would also permit earlier communications to students about their placements and should enable better organization of travel requirements for both students and faculty as they learn and teach, respectively within the MD program. Such a model would require student, staff and faculty engagements for its development, and must consider existing systems/models

of clinical placement allocation, including those managed by UME centrally, the Academies and within each rotation by Clinical Departments. New administrative resources would be required to launch and sustain this initiative as well as staff and faculty development in order to train people to use this process effectively.

b. Minimize mid-day travel for students and explore enhanced transportation services where needed.

Rationale:
Students report travel arrangement requirements, both in time and expense that are disproportionally burdensome on specific groups of students. Time required to travel between sites takes away from a student's clinical and educational opportunities, or much needed 'downtime'. Some learners are expected to routinely rely on different transit systems, or asked to cross between systems. Shuttle services are an existing component of the transportation network in use by many students. However, these are not dedicated services for students who sometimes feel unwelcome within this environment. These shuttle services do not provide consistently reliable service at times and to and between locations needed by our learners. At other times, students rely on taxi services to get them home from sites late at night and request the provision of taxi chits for these instances.

In addition, the current pre-clerkship curricular organization has provisions for Academy Days, intended to ease the burden of travelling to multiple sites in one day. Indeed, these days were created with the intended purpose of reducing student travel, which they have largely accomplished. However, students in both preclerkship and clerkship training indicate that they are still required to travel between sites in one day for different courses or placements. It is evident that although the Academy Day concept is a useful one, it has not fully achieved the desired student experience it had intended.

Students indicated that some universities offer a universal pass to transit systems at significantly reduced rates compared to those experienced by University of Toronto students. For example, a UBC student would be expected to pay under $25/month[6] while University of Toronto students can receive a subsidized Metropass for $99/month[7] and this pass does not cover all areas to which our students travel. Students see this as a financial burden considering the already high cost of tuition at the University of Toronto and it remains a troublesome aspect of the quality of our student experiences here.

Therefore, the Task Force recommends the elimination if feasible, or minimization of required mid-day travel. Where the modelling exercise outlined in a) has not fully resolved the need for travel, the Task Force also recommends that possibilities for enhanced transportation services be explored.

c. Investigate options for support of students with extraordinary travel requirements.

[6] http://www.upass.ubc.ca/
[7] http://utsu.ca/section/1078

Rationale:
Although the Task Force recognizes that travel to distant sites is a requirement to enable the diversity of learning contexts within our curriculum, the cost of travel should be equitably distributed to all of our students. It is recommended as a next step that the Faculty establish a 'threshold' amount of travel for all learners in the MD program and then provide financial subsidies for those students who are expected to surpass this threshold. Any solution must be in keeping with the Office of Student Finance's principles of financial disbursement. We recognize that by implementing this recommendation, much of the burden and expense related specifically to travel will be minimized, thereby addressing one of the major concerns of our students.

Recommendation 2:
Ensure that the clinical learning roles and responsibilities of medical students are comparable among Academy sites.

Implementation Tactics for Recommendation 2:
a. Utilize multiple sources of information, including existing clinical data sources at hospitals and clinical log systems to monitor patient loads. This will ensure reasonable and evenly distributed clinical learning experiences in each discipline among the Academies.

Rationale:
Another important issue is the level of engagement of clinical clerks in the delivery of clinical care. Service-loads should be reasonable and evenly distributed among the disciplines and the academies so that no group of students is unfairly advantaged or disadvantaged with respect to their clinical learning experience. As a next step, the Task Force recommends that existing systems for monitoring clerk's clinical exposures be enhanced to include specific examination of service and call loads, and clinical exposure, and, where necessary, make adjustments to the student clinical learning experience based on such data.

b. Implement routine and comprehensive student evaluations of the Academy experience, separate from and in addition to course and teacher evaluations.

Rationale:
Critical to the students learning experience is the culture of the clinical environment in which the clerks are placed. The Task Force recommends that routine student evaluations review not only teaching and course quality as is done at present, but also specifically review the quality of the Academy experience itself. This should include evaluation of travel, time, cost, convenience and satisfaction with the learning environment within each individual Academy. This would provide valuable benchmarking data for quality improvement across the entire Academy system, as well as within individual sites. As a next step, the UME Curriculum Committee should develop such evaluation tools, in partnership with the Academy sites.

2. Focus on Faculty Members:

As a core guiding principle, the Task Force recognizes that the key to achieving an outstanding learning experience for students in the Academy is the quality of teaching and engagement of our clinical faculty in UME at the hospital and community sites.

Recommendation 3:
Communicate and demonstrate effectively to clinical faculty the value of the medical Academy; how it enhances the student experience, the faculty role in their University clinical department hospital division, and how it potentially may contribute to individual faculty members' professional development.

Implementation Tactics for Recommendation 3:
a. Engage stakeholders in developing a statement of the unique clinical learning opportunities available at each Academy that is aligned with hospital health care programs and strengths.

Rationale:
The Task Force found that faculty members may feel disconnected with their site's role within the Academy system and are sometimes unaware of the Academy or its role in the delivery of the UME curriculum. The establishment of a clearly defined and disseminated articulation of the unique aspects of each Academy, and its role in the overall UME system would therefore work to improve the culture of education within each of the sites, and would improve the faculty member's connection to and engagement in the Academy. The Faculty of Medicine places a large value on the recruitment and training of many talented faculty members with diverse interests and skills. Similarly, medical students place value on their ability to choose among the many different high-quality opportunities provided for them across the Academy and non-Academy sites within their training. Students strongly support the establishment of **statements of the unique clinical learning opportunities available** for each of the four Academies. They would provide a more rigorous framework for selection of Academy placement by students than reputation alone. Information about the different academies will begin to be presented to admission candidates in 2011.

One of the primary strengths of the existing Academy system is to provide a home for a student in a smaller setting compared to a singular venue for the entire large medical school class. Since each Academy utilizes different clinical sites, they have differentiated themselves to some extent because each hospital complex has its own culture. Students and faculty members do appreciate that each Academy and each site used by the Academies have their individual strengths. However, the culture of each Academy and how it intersects with the hospital values and the goals and objectives of Undergraduate Medical Education have not been clearly articulated. Indeed, the Academy culture is often only known by oral history and reputational attributes; both vulnerable to misinformation. The Mississauga Academy of Medicine has developed a vision and a set of 'promises' to its constituents that may serve as a model to emulate.

The Task Force therefore recommends that as a next step, at each Academy, under the leadership of the Academy Director and hospital Vice Presidents Education, a group

develop a specific Academy-centred **statement of the unique clinical learning opportunities available** that can be widely communicated in writing to students and teaching faculty. Of note is that each affiliated hospital has a set of "values" (e.g., integrity, respect, excellence) that are highly relevant to the learning environment of their Academy. These attributes must be consonant with the overall FOM and UME goals and accreditation standards, but must allow for some differentiation. There are many reasons for recommending this articulation; by doing so, potential further collaboration and innovations within and across academies can be identified and targeted appropriately. Clearly articulated statements within each Academy, congruent with goals, objectives and values would provide a framework for measuring common academic outcomes within the context of individual hospital cultures.

b. Ensure that the roles/responsibilities of medical students' at all clinical sites are understood by all health professionals interacting with learners.

Rationale:
Throughout the finding of the working groups, the Task Force heard that medical students play an important role in our health care system, and are valued members of the health care team. Although there is a sense that they are valued, there is not always a clear understanding of their role and responsibility at all clinical sites. The SWOT report very much acknowledges that the Academy System facilitates the learner's integration into the clinical environment, emphasizing the importance of the student/clinician interface. However, as our learners and teachers work more often in teams, we recognize that the teams may not always understand the students' responsibilities and likewise, that students may not recognize their responsibilities outside of their direct clinician/teacher interface. By defining both, we would not only strengthen the connections made between learner and teacher but acknowledge the critical role of all faculty members at the learning sites. Thus, our learners would become more deeply connected to their clinical site enhancing the quality of their experience even further. As a next step, the Task Force recommends that the UME program in partnership with the individual institutions and academies, examine ways to disseminate such information.

c. Develop and articulate the value proposition of the medical Academy for those who teach.

Rationale:
One of the strategic directions of the Faculty of Medicine and TAHSN is to value academic performance. The Academy System can be a facilitator of this for our teaching faculty. The University of Toronto and its affiliated hospital network would be deeply strengthened by recognizing and further developing the value of the medical Academy as a central focus for student learning and faculty professional growth. The Medical Academy is an effective vehicle of integration and has been effective in improving the quality of the student experience since its initial creation. The Academy System, however, has the potential to do much more. Faculty development, for example can be enhanced through the Academy System; by recognizing strong clinical teaching faculty or resident trainees and helping them develop their own careers as educators. The Faculty

of Medicine offers an excellent menu of options for faculty development and our partner institutions would be even stronger were the Academy System able to identify those individuals who would greatly benefit from such offerings. By placing value on the Academy System, the Task Force believes we can provide better development opportunities for those who teach within it. As next steps, the Task Force recommends that the Academy Directors and hospital Vice-Presidents Education working with UME leaders develop clear benchmarks for the Academy with regards to its teaching and academic performance across the Academy System.

Recommendation 4:
Facilitate a working relationship between the leadership of the University Clinical Departments and the Academies.

Implementation Tactics for Recommendation 4:
a. Enhance relationships between the Academy and University Departments/Divisions and Hospital Departments/Divisions.

Rationale:
Teaching sites and the University have numerous faculty members and staff who work to ensure the high quality of the undergraduate medical program. Neither University nor affiliated hospital departments currently have a formal relationship or connection with the Academy System or its directors. The Task Force heard that many of our key clinical leaders in clinical departments lack an in-depth understanding of the role of the Academy within our education programs. As a next step, the Task Force recommends a formal communication and organizational structure be developed between departments and academies, reflecting the critical importance of the departments in delivering the clinical programs. In doing so, not only will the student experience improve, but that the faculty members within the department and sites will feel more engaged with the Academy model of curriculum delivery, and gain value from it. All full-time and part-time clinical faculty members are required to contribute to education at the University of Toronto. Valuing academic performance including excellence in teaching is part of annual activity reviews and academic promotion for every faculty member. Increasing opportunities of clinical faculty to contribute to UME within the Medical Academy context will require improved communication and engagement within the Clinical Departments. This is an important issue for the Dean and the Clinical Department Chairs. The Medical Academy provides an important opportunity for the Clinical Departments to ensure continuity of medical education that aligns with improved quality and innovation in health care. Faculty development that includes UME curriculum and medical student clinical skill competencies can be provided in a cost-effective and inter-disciplinary mode within the Medical Academy networks.

3. Focus on the Academy Structure and Function

Critical to enabling student and faculty member centred recommendations are needed changes in the organization of the structure and function of the academies.

Recommendation 5:

Ensure that the Faculty of Medicine's Academy System effectively integrates and values educational experiences for students and teaching experiences for faculty members across all University of Toronto fully-affiliated and community-affiliated hospital partners.

Implementation Tactics for Recommendation 5:

a. Develop inter-institutional relationships preferably through letters of agreement among partner institutions to provide clarity about the oversight and management of the Academy System. Reference these new Academy partnership agreements within the soon-to-be renegotiated formal University/hospital affiliation memoranda.

Rationale:

The Task Force recommends a formalization of the oversight and management of the Academy System. The affiliation agreements for all hospitals are reviewed every five years; and in 2011, the University of Toronto will renew these agreements. The Task Force recommends that any renegotiated affiliation agreement should reference the Academy connection as a starting point to enhancing clarity around oversight and management.

As has already been identified, the high quality of the MD program itself is reliant on all our affiliated institutions; as well as the coordinated collaboration among them. Currently, the relationship among hospitals that contribute to individual Academy teaching are informal and without agreement terms. These relationships have formed since the establishment of the Academy System and are largely sustained by leadership relationships, goodwill and a collective understanding of the importance of providing high quality medical education opportunities. In addition, specialty fully-affiliated hospitals have no formal agreements as to how they relate or support the educational goals of the Academy System. A formal expression of their important roles within the delivery of the undergraduate medical education curriculum and the Academy System is advisable at this time as well which would allow for increased engagement of students at these specialty sites. The Task Force is therefore recommending that formal agreements among partner hospitals be established that would provide improved structure and function for the governance and administration of each Academy. Such agreements, formed through discussions between the Vice-Provost, Relations with Healthcare Institutions and the hospital CEOs and Vice-Presidents Education would also demonstrate the importance of collaboration and integration in valuing the student and faculty experience. Appropriate agreements should be drafted in accordance with shared goals on the understanding that historical relationships, that are working well, are maintained but also with the flexibility to create new associations among hospital partners in the future. Importantly, this would also assist the Vice-Presidents Education and Academy Directors in creating a menu of medical student teaching and learning opportunities across the fully-affiliated and community-affiliated hospitals that is linked to patient programs, quality care, and institutional strengths, while providing the diversified learning contexts expected from the FMEC report.

b. Identify the role, authority and reporting relationships of Academy Directors to Academy teaching sites in a structured expanded Academy concept.

Rationale:
Further to the above, there is a growing need to clearly articulate and develop operational and functional maps of authority governing the Academy System. One of the strengths of our Undergraduate Medical Education program is the people who contribute to its success and organization. Each of the academies themselves has Academy Directors and each of our learning sites has a Vice-President, Education or equivalent. The Academy Directors have a dual reporting relationship to both the Vice-President, Education in the Academy's base site and the Vice-Dean, Undergraduate Medical Education at the Faculty of Medicine. However, the work of the Task Force has revealed that the role of the Academy Director becomes less concrete outside their base hospital and the authority by which they manage the Academy System becomes more complex as they relate to multiple Vice-Presidents of Education at more than one teaching site.

The establishment of clear lines of authority for the delivery of the undergraduate MD program and an agreement on the formal role of the Academy Director who may have reports in multiple institutions would encourage an improved culture of teaching and learning across the system.

c. Articulate minimum infrastructure standards, in accordance with the Committee on Accreditation of Canadian Medical Schools (CACMS)/ Liaison Committee on Medical Education (LCME) accreditation standards and Professional Association of Residents and Interns of Ontario (PAIRO) guidelines for all clinical training sites that include careful attention to student safety/wellness.

Rationale:
During the work of the Task Force, questionnaires based upon LCME accreditation guidelines were sent out to multiple respondents asking questions about infrastructure. Reports back from our students and faculty members indicated that although most of our clinical network sites meet acceptable standards, some are deficient. The reports from the hospitals did not always reflect the gaps identified by the students. The Task Force recommends that, based upon the LCME accreditation standards and PAIRO guidelines which are currently in effect for resident trainees, the Faculty of Medicine should articulate a set of minimum and best practice standards to support teaching and learning at each site. It was further suggested that commitment to meet these guidelines be built into the formal agreements proposed between the Faculty of Medicine and the partner institution(s). The Task Force recommends that the Hospital/University Education Committee (HUEC) that reports to the Dean of Medicine, undertake this task.

The Task Force wishes to ensure both the safety and wellness of every student and to provide the best possible learning experience for them. The Task Force recommends that the Office of Health Professions Student Affairs, as well as the T-IME Working Group on the Learner Experience, be engaged in the implementation of the specific items

addressing student safety and wellness. In addition, the establishment of minimum infrastructure standards and best practices for education management would also ensure the best possible teaching experience for our faculty members.

d. Establish an integrated academic administrative system using information technology for all MD students and trainees across all sites, including, but not limited to, systems for email, badge identification, and videoconferencing.

Rationale:
The Task Force recommends the Faculty of Medicine, working in collaboration with teaching sites, provide a set of minimal standards and basic principles upon which the delivery of the Academy-based curriculum is administered. Differing administrative requirements at sites makes moving between sites for our learners cumbersome and time consuming. Further integration of administrative functionality, such as the current MedSIS/POWER module being developed for preceptor remuneration, will enable smoother or seamless transitions for learners and faculty members across the Academy System. With the understanding that administrative requirements and provision of information technology differs greatly from site to site, the Task Force recommends that a minimal standard for IT-based infrastructure be defined across the Academy System. The quality of service and availability of infrastructure must be appropriate to support the curriculum delivery and the learning experience of our trainees. In addition, dependent on the nature of the learning or conversation taking place, the security of the IT-based information must be appropriately guarded as per current legislation. The Task Force recommends that HUEC examine the best way to implement this recommendation, with consultation from relevant Faculty of Medicine and hospital IT leaders.

Recommendation 6:
Establish a clear accountability framework for funds used to support Undergraduate Medical Education from all sources at the Academy.

Implementation Tactics for Recommendation 6:
a. Strike a steering committee composed of staff, students and faculty members to establish a standardized accountability framework that tracks revenues and expenses, including support for teaching, across the Academy System.

Rationale:
During the Task Force review, it was clear that there are multiple and significant resources allocated to support undergraduate education as part of the entire package of educational support. Such funds include T&R funds, MTD funds, as well as physician funding support through the hospitals, the University and through practice plans. There are however inconsistencies and lack of transparency in elucidating the sources and distribution of this support for UME; made challenging by existing integrated clinical UME and PGME budgeting in hospitals.

In order to conduct a full review of how funds are provided, allocated, utilized, tracked, evaluated and reported upon the Task Force recommends that a steering committee be

struck, including representation from PGME. The ultimate goal would be to establish a standardized accountability framework across the Academy System.

5.0 SUMMARY OF RECOMMENDATIONS AND STEPS TO IMPLEMENTATION

The Task Force's recommendations are summarized in Table 1 under short-term (within one year), medium term (within 1-2 years) and long-term (within 3-4 years) timeframes for implementation. Beyond this table, the Task Force recommends taking immediate steps to identify areas of potential non-compliance with LCME standards.

IMPLEMENTATION RECOMMENDATIONS

	S	M	L	Page
FOCUS ON STUDENTS:				
1. Ensure that all students are assigned clinical placements over their four-year program duration that provide comparable opportunities for clinical learning experiences, balancing travel requirements and expense.				
a. Implementation will require the creation of a centrally managed system by which all student clinical placements can be mapped, organized, individually customized and allocated, reflecting comparable clinical learning opportunities and travel requirements for all students across all four years. As a next step, student and faculty experts in systems modelling design will be engaged with academic leaders to enable this recommendation and develop a new system for assignment of clinical placements that will meet accreditation requirements and create best practices. Students will be engaged in this process to provide advice and be directly involved in decisions about their clinical placements.	✓			14
b. Minimize mid-day travel for students and explore enhanced transportation services where needed.	✓			16
c. Investigate options for support of students with extraordinary travel requirements.	✓			16
2. Ensure that the clinical learning roles and responsibilities of medical students are comparable among Academy sites.				
a. Utilize multiple sources of information, including existing clinical data sources at hospitals and clinical log systems to monitor patient loads. This will ensure reasonable and evenly distributed clinical learning experiences in each discipline among the Academies.	✓			17
b. Implement routine and comprehensive student evaluations of the academy experience, separate from and in addition to course and teacher evaluations.	✓			17
FOCUS ON FACULTY MEMBERS				
3. Communicate and demonstrate effectively to clinical faculty the value of the medical Academy; how it enhances the student experience, the faculty role in their University clinical department hospital division, and how it potentially may contribute to individual faculty members' professional development.				
a. Engage stakeholders in developing a statement of the unique clinical learning opportunities available at each Academy that is aligned with hospital health care programs and strengths.	✓			18
b. Ensure that the roles/responsibilities of medical students' at all clinical		✓		19

	sites are understood by all health professionals interacting with learners.				
c.	Develop and articulate the value proposition of the medical Academy for those who teach.	✓			19
4. Facilitate a working relationship between the leadership of the University Clinical Departments and the Academies.					
a.	Enhance relationships between the Academy and University Departments/Divisions and Hospital Departments/Divisions.		✓		20
FOCUS ON ACADEMY					
5. Ensure that the Faculty of Medicine's Academy System effectively integrates and values educational experiences for students and teaching experiences for faculty members across all University of Toronto fully-affiliated and community-affiliated hospital partners.					
a.	Develop inter-institutional relationships preferably through letters of agreement among partner institutions to provide clarity about the oversight and management of the Academy System. Reference these new Academy partnership agreements within the soon-to-be renegotiated formal University/hospital affiliation memoranda.	✓			21
b.	Identify the role, authority and reporting relationships of Academy Directors to Academy teaching sites in a structured expanded Academy concept.		✓		22
c.	Articulate minimum infrastructure standards, in accordance with the Committee on Accreditation of Canadian Medical Schools (CACMS)/ Liaison Committee on Medical Education (LCME) accreditation standards and Professional Association of Residents and Interns of Ontario (PAIRO) guidelines for all clinical training sites that include careful attention to student safety/wellness.	✓			22
d.	Establish an integrated academic administrative system using information technology for all MD students and trainees across all sites, including, but not limited to, systems for email, badge identification, and videoconferencing.			✓	23
6. Establish a clear accountability framework for funds used to support Undergraduate Medical Education from all sources at the Academy.					
a.	Strike a steering committee composed of staff, students and faculty members to establish a standardized accountability framework that tracks revenues and expenses, including support for teaching, across the Academy System.		✓		23

FACULTY OF MEDICINE
TASK FORCE ON MEDICAL ACADEMIES


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FUNCTIONS AND STRUCTURE OF A MEDICAL SCHOOL

Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree

June 2010

(For schools with full accreditation surveys in 2011-2012)

Liaison Committee on Medical Education

Functions and Structure of a Medical School
Standards for Accreditation of Medical Education Programs Leading to the M.D. Degree

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Functions and Structure of a Medical School

Introduction

Accreditation is a voluntary, peer-review process designed to attest to the educational quality of new and established educational programs. The Liaison Committee on Medical Education (LCME) accredits complete and independent medical education programs in which medical students are geographically located in the United States or Canada[1] for their education and which are operated by universities or medical schools that are chartered in the United States or Canada. Accreditation of Canadian medical education programs is undertaken in cooperation with the Committee on the Accreditation of Canadian Medical Schools (CACMS). By judging the compliance of medical education programs with nationally accepted standards of educational quality, the LCME and the CACMS serve the interests of the general public and of the medical students enrolled in those programs.

To achieve and maintain accreditation, a medical education program leading to the M.D. degree in the U.S. and Canada must meet the standards contained in this document. The accreditation process requires a medical education program to provide assurances that its graduates exhibit general professional competencies that are appropriate for entry to the next stage of their training and that serve as the foundation for lifelong learning and proficient medical care. While recognizing the existence and appropriateness of diverse institutional missions and educational objectives, the LCME subscribes to the proposition that local circumstances do not justify accreditation of a substandard program of medical education leading to the M.D. degree.

In this document the words “must” and “should” have been chosen with great care. The difference in terminology is slight, but significant. Use of the word “must” indicates that the LCME considers meeting the standard to be absolutely necessary for the achievement and maintenance of accreditation. Use of the word “should” indicates that compliance with the standard is expected in the absence of extraordinary and justifiable circumstances that preclude full compliance. Explanatory annotations that clarify the operational meaning of individual standards are provided.

In addition, an attempt has been made to use consistent language throughout this document. For example, since the LCME is a programmatic rather than an institutional accreditor, the term “medical education program” is used preferentially throughout the document, with the acknowledgement that various accreditation requirements will be carried out by administrators, faculty, and staff of the program and its sponsoring institution(s). Because of differences in the meaning of the term “clerkship” in the U.S. and Canada, the terms “clerkship” and “clerkship rotation” are used consistently to describe for U.S. and Canadian medical schools, respectively, a required clinical experience.
In addition, the use of the terms “assess” and “assessment” is consistently reserved for description of activities related to the assessment of medical student performance, while the use of the terms “evaluate” and “evaluation” is consistently reserved for faculty, resident, course and clerkship/clerkship rotation, and program evaluation.

If a U.S. or Canadian institution that provides an LCME-accredited, M.D.-granting program also offers other medical education programs leading to the M.D. degree that are not accredited by the LCME, the institution must ensure awareness of the difference in accreditation status between the LCME-accredited program and any other M.D.-granting programs. The LCME Secretariat can, upon request, provide information and consultation about medical education standards.

[1] The terms “United States” and “Canada” refer to the geographic locations in which citizens are issued passports by the governments of the United States and Canada, respectively.

Note that periodic revision and amendment of the standards may result in the elimination of certain numbered standards (e.g., there is no longer a standard numbered ED-45) and in the addition of standards that include letters after the numerical prefix (e.g., ED-1-A). The use of letter suffixes is not intended to indicate that such standards are subsidiary to other standards, but simply to indicate their placement with respect to surrounding standards.

Additional information about accreditation can be obtained from the LCME or the CACMS offices listed below or from the LCME Web site (www.lcme.org).

LCME Secretariat
Association of American Medical Colleges
2450 N Street, N.W.
Washington, D.C. 20037
Phone: 202-828-0596 Fax: 202-828-1125

LCME Secretariat
American Medical Association
515 North State Street
Chicago, IL 60610
Phone: 312-464-4933 Fax: 312-464-5830

CACMS Secretariat
Committee on the Accreditation of Canadian Medical Schools
The Association of Faculties of Medicine of Canada
265 Carling Avenue, Suite 800
Ottawa, Ontario, Canada K1S 2E1
Phone: 613-730-0687 Fax: 613-730-1196

Visit the LCME Web site at:
www.lcme.org

I. INSTITUTIONAL SETTING

IS-1. An institution that offers a medical education program must engage in a planning process that sets the direction for its program and results in measurable outcomes.

> To ensure the ongoing vitality and successful adaptation of its medical education program to the rapidly changing environment of academic medicine, the institution needs to establish periodic or cyclical institutional planning processes and activities. Planning efforts that have proven successful typically involve the definition and periodic reassessment of both short-term and long-term goals for the successful accomplishment of institutional missions. By framing goals in terms of measurable outcomes wherever circumstances permit, the institution can more readily track progress toward their achievement. The manner in which the institution engages in planning will vary according to available resources and local circumstances, but it should be able to document its vision, mission, and goals; evidence indicating their achievement; and strategies for periodic or ongoing reassessment of successes and unmet challenges.

A. Governance and Administration

IS-2. A medical education program should be, or be part of, a not-for-profit institution legally authorized under applicable law to provide medical education leading to the M.D. degree.

IS-3. If a U.S. medical education program is not a component of a regionally accredited institution, the parent institution for the program must achieve institutional accreditation from the appropriate regional accrediting body.

> The LCME is recognized by the U.S. Department of Education as an accrediting agency for medical education programs leading to the M.D. degree. Because the LCME is not recognized as an institutional accrediting agency, it lacks standing to accredit stand-alone medical schools as institutions of higher education.
>
> Institutional accreditation is granted by regional accrediting agencies and is required to qualify for federal financial assistance programs authorized under Title IV of the Higher Education Act. Some regional accrediting bodies grant "pre-accreditation" as a first step to achieving full accreditation. In such circumstances the attainment of pre-accreditation status would meet the requirements of this standard.

IS-4. The manner in which an institution that offers a medical education program is organized, including the responsibilities and privileges of administrative officers, faculty, medical students, and committees must be promulgated in programmatic or institutional bylaws.

IS-5. The governing board responsible for oversight of an institution that offers a medical education program must have and follow formal policies and procedures to avoid the impact of conflicts of interest of members in the operation of the institution and its associated clinical facilities and any related enterprises.

> There must be formal policies and procedures at the institution to avoid the impact of conflicts of interest (e.g., the requirement that a board member recuse him or herself from any discussion

and vote relating to a matter where there is the potential for a conflict of interest to exist). The institution also must provide evidence (e.g., from board minutes, annual signed disclosure statements from board members) that these policies and procedures actually are being followed. Some conflicts related to personal or pecuniary interests in the operation of the institution may be so pervasive as to preclude service on the governing board.

IS-6. Terms of governing board members of an institution that offers a medical education program should be overlapping and sufficiently long to permit them to gain an understanding of its program.

IS-7. Administrative officers and members of the faculty must be appointed by, or on the authority of, the governing board of the medical education program or its parent institution.

IS-8. The chief official of a medical education program, who usually holds the title "dean," must have ready access to the university president or other official of the parent institution who is charged with final responsibility for the program and to other institutional officials as are necessary to fulfill the responsibilities of the dean's office.

IS-9. There must be clear understanding of the authority and responsibility for matters related to the medical education program among the vice president for health affairs, the chief official of the medical education program, the faculty, and the directors of the other components of the medical center and the parent institution.

IS-10. The chief official of a medical education program must be qualified by education and experience to provide leadership in medical education, scholarly activity, and patient care.

IS-11. The administration of an institution that offers a medical education program should include such associate or assistant deans, department chairs, leaders of other organizational units, and staff as are necessary to accomplish its mission(s).

There should not be excessive turnover or long-standing vacancies in the leadership of the institution. Areas that commonly require administrative support include admissions, student affairs, academic affairs, educational affairs/curriculum, faculty affairs, graduate education, continuing education, relationships with clinical affiliates, research, business and planning, and fund-raising.

B. Academic Environment

IS-12. Medical students should have opportunities to learn in academic environments that permit interaction with students enrolled in other health professions, graduate, and professional degree programs and in clinical environments that provide opportunities for interaction with physicians in graduate medical education and continuing medical education programs.

These academic, graduate medical education, and continuing medical education programs should contribute to the learning environment of the medical education program. Periodic and formal review of these programs culminating in their accreditation by the appropriate accrediting bodies would provide evidence of their adherence to high standards of quality in education, research, and scholarship. Whenever appropriate, medical students would be able to participate in selected activities associated with these programs in order to facilitate achievement of their personal and professional goals.

IS-13. A medical education program must be conducted in an environment that fosters the intellectual challenge and spirit of inquiry appropriate to a community of scholars.

IS-14. An institution that offers a medical education program should make available sufficient opportunities for medical students to participate in research and other scholarly activities of its faculty and encourage and support medical student participation.

The institution is expected to provide an appropriate number and variety of research opportunities to accommodate those medical students desiring to participate. To encourage medical student participation, the institution could, for example, provide information about available opportunities, offer elective credit for research, hold research days, or include research as a required part of the curriculum. Support for medical student participation could include offering or providing information about financial support for student research (e.g., stipends).

IS-14-A. An institution that offers a medical education program should make available sufficient opportunities for medical students to participate in service-learning activities and should encourage and support medical student participation.

"Service-learning" is defined as a structured learning experience that combines community service with preparation and reflection. Medical students engaged in service-learning provide community service in response to community-identified concerns and learn about the context in which service is provided, the connection between their service and their academic coursework, and their roles as citizens and professionals. [Definition from Seifer SD. "Service-learning: Community-campus partnerships for health professions education." *Academic Medicine*, 73(3):273-277 (1998).]

"Sufficient opportunities" means that medical students who wish to participate in a service-learning activity will have the opportunity to do so. To encourage medical student participation, institutions could, for example, develop opportunities in conjunction with relevant communities or partnerships, provide information about available opportunities, offer elective credit for participation, or hold public presentations or public forums. Support for medical student participation could include offering or providing information about financial and social support for medical student service-learning (e.g., stipends, faculty preceptors, community partnerships).

IS-15. *Currently, there is no standard IS-15.*

IS-16. An institution that offers a medical education program must have policies and practices to achieve appropriate diversity among its students, faculty, staff, and other members of its academic community, and must engage in ongoing, systematic, and focused efforts to attract and retain students, faculty, staff, and others from demographically diverse backgrounds.

The LCME and the CACMS believe that aspiring future physicians will be best prepared for medical practice in a diverse society if they learn in an environment characterized by, and supportive of, diversity and inclusion. Such an environment will facilitate physician training in:

- Basic principles of culturally competent health care.
- Recognition of health care disparities and the development of solutions to such burdens.
- The importance of meeting the health care needs of medically underserved populations.
- The development of core professional attributes (e.g., altruism, social accountability) needed to provide effective care in a multidimensionally diverse society.

The institution should articulate its expectations regarding diversity across its academic community in the context of local and national responsibilities, and regularly assess how well such expectations are being achieved. The institution should consider in its planning elements of diversity including, but not limited to, gender, racial, cultural, and economic factors. The institution should establish focused, significant, and sustained programs to recruit and retain suitably diverse students, faculty members, staff, and others.

II. EDUCATIONAL PROGRAM FOR THE M.D. DEGREE

A. Educational Objectives

ED-1. The faculty of an institution that offers a medical education program must define the objectives of its program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the program.

Objectives for the medical education program as a whole serve as statements of what students are expected to learn or accomplish during the course of the program.

It is expected that the objectives of the medical education program will be formally adopted by the curriculum governance process and the faculty (as a whole or through its recognized representatives). Among those who should also exhibit familiarity with these objectives are the dean and the academic leadership of clinical affiliates who share in the responsibility for delivering the program.

ED-1-A. The objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.

The objectives of the medical education program are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement.

The educational objectives, along with their associated outcome measures, should reflect whether and how well graduates are developing these competencies as a basis for the next stage of their training.

There are several widely recognized definitions of the knowledge, skills, behaviors, and attitudinal attributes appropriate for a physician, including those described in the AAMC's Medical School Objectives Project, the general competencies of physicians resulting from the collaborative efforts of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and the physician roles summarized in the CanMEDS 2005 report of the Royal College of Physicians and Surgeons of Canada.

ED-2. An institution that offers a medical education program must have in place a system with central oversight to ensure that the faculty define the types of patients and clinical conditions that medical students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of medical student responsibility. The faculty must monitor medical student experiences and modify them as necessary to ensure that the objectives of the medical education program are met.

The institution that offers a medical education program is required to establish a system to specify the types of patients or clinical conditions that medical students must encounter and to monitor and verify the medical students' experiences with patients so as to remedy any identified gaps. The system must ensure that all medical students have the required experiences. For example, if a medical student does not encounter patients with a particular clinical condition (e.g., because it is seasonal), the medical student should be able to remedy the gap by a simulated experience (e.g., a standardized patient experience, an online or paper case) or in another clerkship (or, in Canada, clerkship rotation)..

When clerkships/clerkship rotations in a given discipline are provided at multiple instructional sites, compliance with this standard (ED-2) may be linked to compliance with standard ED-8, which requires that the medical education program demonstrate comparability of education experiences across instructional sites.

ED-3. The objectives of a medical education program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education and assessment.

B. Structure

1. General Design

ED-4. A medical education program must include at least 130 weeks of instruction.

ED-5. The curriculum of a medical education program must provide a general professional education and prepare medical students for entry into graduate medical education.

ED-5-A. A medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.

It is expected that the methods of instruction and assessment used in courses and clerkships (or, in Canada, clerkship rotations) will provide medical students with opportunities to develop lifelong learning skills. These skills include self-assessment on learning needs; the independent identification, analysis, and synthesis of relevant information; and the appraisal of the credibility of information sources. Medical students should receive explicit experiences in using these skills, and they should be assessed and receive feedback on their performance.

ED-6. The curriculum of a medical education program must incorporate the fundamental principles of medicine and its underlying scientific concepts; allow medical students to acquire skills of critical judgment based on evidence and experience; and develop medical students' ability to use principles and skills wisely in solving problems of health and disease.

ED-7. The curriculum of a medical education program must include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effects of social needs and demands on care.

ED-8. The curriculum of a medical education program must include comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline.

Compliance with this standard requires that the educational experiences at all instructional sites be designed to achieve the same educational objectives. Course or clerkship (or, in Canada, clerkship rotation) length must be identical, unless a compelling reason exists for varying the length of the experience. The instruments and criteria used for medical student assessment, as well as the policies for the determination of grades, should be the same at all instructional sites. The faculty who teach at all instructional sites should be sufficiently knowledgeable in the subject matter to provide effective instruction and have a clear understanding of the objectives of the educational experience and the assessment methods used to determine achievement of those objectives. Opportunities to enhance teaching and assessment skills should be available for faculty at all instructional sites.

Although the types and frequency of problems or clinical conditions seen at each instructional site may vary, each course or clerkship/clerkship rotation must identify any core experiences needed to achieve its objectives and ensure that students receive sufficient exposure to such experiences. Similarly, although the proportion of time spent in inpatient and ambulatory settings may vary according to local circumstances, in such cases the course or clerkship/clerkship rotation director must ensure that limitations in learning environments do not impede the accomplishment of objectives.

To facilitate the comparability of educational experiences and the equivalency of assessment methods, the course or clerkship/clerkship rotation director should orient all participants, both faculty and students, to the educational objectives and grading system used. This orientation can be accomplished through regularly scheduled meetings between the director of the course or clerkship/clerkship rotation and the directors at the various instructional sites that are used.

The course and clerkship/clerkship rotation leadership should review medical students' evaluations of their experiences at all instructional sites to identify any persistent variations in educational experiences or assessment methods.

ED-9. A medical education program must notify the LCME and the CACMS, when applicable, of its plans for any major modification of its curriculum.

The notification should include the explicitly-defined goals of the change, the plans for implementation, and the methods that will be used to evaluate the results. Planning for curriculum change should consider the incremental resources that will be required, including physical facilities and space, faculty and resident effort, library facilities and operations, information management needs, and computer hardware.

In view of the increasing pace of discovery of new knowledge and technology in medicine, the LCME and the CACMS encourage experimentation that will increase the efficiency and effectiveness of medical education.

2. Content

ED-10. The curriculum of a medical education program must include behavioral and socioeconomic subjects in addition to basic science and clinical disciplines.

Lists of subjects widely recognized as important components of the general professional education of a physician are included in the medical education database that is completed in preparation for full accreditation surveys and in the LCME Part II Annual Medical School

Questionnaire. Depth of coverage of the individual topics will depend on the medical education program's educational goals and objectives.

ED-11. The curriculum of a medical educational program must include content from the biomedical sciences that supports students' mastery of the contemporary scientific knowledge, concepts, and methods fundamental to acquiring and applying science to the health of individuals and populations and to the contemporary practice of medicine.

It is expected that the curriculum will be guided by clinically-relevant biomedical content from, among others, the disciplines that have been traditionally titled anatomy, biochemistry, genetics, immunology, microbiology, pathology, pharmacology, physiology, and public health sciences.

ED-12. The curriculum of a medical education program should include laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data.

Opportunities in the curriculum could include hands-on or simulated (e.g., computer-based) exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena. The medical education program should be able to identify the location in the curriculum where such exercises occur, the specific intent of the exercises, and how the exercises contribute to the objectives of the course and the ability to collect, analyze, and interpret data.

ED-13. The curriculum of a medical education program must cover all organ systems, and include the important aspects of preventive, acute, chronic, continuing, rehabilitative, and end-of-life care.

ED-14. The curriculum of a medical education program must include clinical experience in primary care.

ED-15. The curriculum of a medical education program must prepare students to enter any field of graduate medical education and include content and clinical experiences related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems.

It is expected that the curriculum will be guided by the contemporary content from and the clinical experiences associated with, among others, the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, and surgery.

ED-16. The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.

ED-17. Educational opportunities must be available in a medical education program in multidisciplinary content areas (e.g., emergency medicine, geriatrics) and in the disciplines that support general medical practice (e.g., diagnostic imaging, clinical pathology).

ED-17-A. The curriculum of a medical education program must introduce medical students to the basic scientific and ethical principles of clinical and translational research, including the ways in which such research is conducted, evaluated, explained to patients, and applied to patient care.

> The faculty of the medical education program should develop explicit learning objectives (knowledge, skills, behaviors, and attitudes) to meet the requirements of this standard. One example of relevant objectives is contained in Report IV of the AAMC's Medical School Objectives Project (Contemporary Issues in Medicine: Basic Science and Clinical Research).
>
> There are several ways in which the medical education program can meet the requirements of this standard. They range from separate required coursework in the subject to the establishment of appropriate learning objectives and instructional activities within existing patient-focused courses or clerkships (or, in Canada, clerkship rotations) (e.g., discussing the application of new knowledge from clinical research in bedside teaching activities, offering mentored projects, or conducting journal club sessions in which medical students explore the development or application of clinical and translational research).

ED-18. The curriculum of a medical education program must include elective opportunities to supplement required courses and clerkships (or, in Canada, clerkship rotations).

> Although electives permit medical students to gain exposure to and deepen their understanding of medical specialties reflecting their career interests, they should also provide opportunities for medical students to pursue individual academic interests.

ED-19. The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.

ED-20. The curriculum of a medical education program must prepare medical students for their role in addressing the medical consequences of common societal problems (e.g., provide instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse).

ED-21. The faculty and medical students of a medical education program must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments.

> Instruction in the medical education program should stress the need for medical students to be concerned with the total medical needs of their patients and the effects that social and cultural circumstances have on patients' health. To demonstrate compliance with this standard, the medical education program should be able to document objectives relating to the development of skills in cultural competence, indicate the location in the curriculum where medical students are exposed to such material, and demonstrate the extent to which the objectives are being achieved.

ED-22. Medical students in a medical education program must learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the process of health care delivery.

The objectives for instruction in the medical education program should include medical student understanding of demographic influences on health care quality and effectiveness (e.g., racial and ethnic disparities in the diagnosis and treatment of diseases). The objectives should also address the need for self-awareness among medical students regarding any personal biases in their approach to health care delivery.

ED-23. A medical education program must include instruction in medical ethics and human values and require its medical students to exhibit scrupulous ethical principles in caring for patients and in relating to patients' families and to others involved in patient care.

The medical education program should ensure that medical students receive instruction in appropriate medical ethics, human values, and communication skills before engaging in patient care activities. As students take on increasingly more active roles in patient care during their progression through the curriculum, adherence to ethical principles should be observed, assessed, and reinforced through formal instructional efforts.

In medical student-patient interactions, there should be a means for identifying possible breaches of ethics in patient care, either through faculty or resident observation of the encounter, patient reporting, or some other appropriate method.

The phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The program's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.

C. Teaching and Evaluation

ED-24. At an institution offering a medical education program, residents who supervise or teach medical students and graduate students and postdoctoral fellows in the biomedical sciences who serve as teachers or teaching assistants must be familiar with the educational objectives of the course or clerkship (or, in Canada, clerkship rotation) and be prepared for their roles in teaching and assessment.

The minimum expectations for achieving compliance with this standard are that: (a) residents and other instructors who do not hold faculty ranks (e.g., graduate students and postdoctoral fellows) receive a copy of the course or clerkship/clerkship rotation objectives and clear guidance from the course or clerkship/clerkship rotation director about their roles in teaching and assessing medical students and (b) the institution and/or its relevant departments provide resources (e.g., workshops, resource materials) to enhance the teaching and assessment skills of residents and other non-faculty instructors. There should be central monitoring of the level of residents' and other instructors' participation in activities to enhance their teaching and assessment skills.

There should be formal evaluation of the teaching and assessment skills of residents and other non-faculty instructors, with opportunities provided for remediation if their performance is inadequate. Evaluation methods could include direct observation by faculty, feedback from medical students through course and clerkship/clerkship rotation evaluations or focus groups, or any other suitable method.

ED-25. Supervision of medical student learning experiences at an institution that offers a medical education program must be provided throughout required clerkships (or, in Canada, clerkship rotations) by members of the institution's faculty.

ED-26. A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes.

> Assessments of medical student performance should measure the retention of factual knowledge; the development of the skills, behaviors, and attitudes needed in subsequent medical training and practice; and the ability to use data appropriately for solving problems commonly encountered in medical practice. The system of assessment, including the format and frequency of examinations, should support the goals, objectives, processes, and expected outcomes of the curriculum.

ED-27. A medical education program must include ongoing assessment activities that ensure that medical students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the program's educational objectives.

ED-28. A medical education program must include ongoing assessment of medical students' problem solving, clinical reasoning, decision making, and communication skills.

ED-29. The faculty of each discipline should set standards of achievement in that discipline and contribute to the setting of such standards in interdisciplinary and interprofessional learning experiences, as appropriate.

ED-30. The directors of all courses and clerkships (or, in Canada, clerkship rotations) in a medical education program must design and implement a system of fair and timely formative and summative assessment of medical student achievement in each course and clerkship/clerkship rotation.

> Faculty of the medical education program directly responsible for the assessment of medical student performance should understand the uses and limitations of various test formats, the purposes and benefits of criterion-referenced vs. norm-referenced grading, reliability and validity issues, formative vs. summative assessment, and other factors associated with effective educational assessment.
>
> In addition, the chief academic officer, curriculum leaders, and faculty of the medical education program should understand, or have access to individuals who are knowledgeable about, methods for measuring medical student performance. The medical education program should provide opportunities for faculty members to develop their skills in such methods.
>
> An important element of the medical education program's system of assessment should be to ensure the timeliness with which medical students are informed about their final performance in courses and clerkships/clerkship rotations. In general, final grades should be available within four to six weeks of the end of a course or clerkship/clerkship rotation.

ED-31. Each medical student in a medical education program should be assessed and provided with formal feedback early enough during each required course or clerkship (or, in Canada, clerkship rotation) to allow sufficient time for remediation.

Although a course or clerkship/clerkship rotation that is short in duration (e.g., less than four weeks) may not have sufficient time to provide a structured formative assessment, it should provide alternate means (e.g., self-testing, teacher consultation) that will allow medical students to measure their progress in learning.

ED-32. A narrative description of medical student performance in a medical education program, including non-cognitive achievement, should be included as a component of the assessment in each required course and clerkship (or, in Canada, clerkship rotation) whenever teacher-student interaction permits this form of assessment.

D. Curriculum Management

1. Roles and Responsibilities

ED-33. There must be integrated institutional responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum.

The phrase "integrated institutional responsibility" implies that an institutional body (commonly a curriculum committee) will oversee the medical education program as a whole. An effective central curriculum authority will exhibit the following characteristics:

- Faculty, medical student, and administrative participation.
- Expertise in curricular design, pedagogy, and evaluation methods.
- Empowerment, through bylaws or decanal mandate, to work in the best interests of the institution without regard for parochial or political influences or departmental pressures.

The phrase "coherent and coordinated curriculum" implies that the medical education program as a whole will be designed to achieve its overall educational objectives. Evidence of coherence and coordination includes the following characteristics:

- Logical sequencing of the various segments of the curriculum.
- Content that is coordinated and integrated within and across the academic periods of study (i.e., horizontal and vertical integration).
- Methods of pedagogy and medical student assessment that are appropriate for the achievement of the program's educational objectives.

Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes the following characteristics:

- Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference.
- Monitoring of content and workload in each discipline, including the identification of omissions and unplanned redundancies.
- Review of the stated objectives of each individual course and clerkship (or, in Canada, clerkship rotation), as well as the methods of pedagogy and medical student assessment, to ensure congruence with programmatic educational objectives.

Minutes of the curriculum committee meetings and reports to the faculty governance and deans should document that such activities take place and should report on the committee's findings and recommendations.

ED-34. The faculty of a medical education program must be responsible for the detailed design and implementation of the components of the curriculum.

Faculty members' responsibilities for the medical education program include, at a minimum, the development of specific course or clerkship (or, in Canada, clerkship rotation) objectives, selection of pedagogical and assessment methods appropriate for the achievement of those objectives, ongoing review and updating of content, and evaluation of course, clerkship/clerkship rotation, and teacher quality.

ED-35. The objectives, content, and pedagogy of each segment of a medical education program's curriculum, as well as of the curriculum as a whole, must be designed by and subject to periodic review and revision by the program's faculty.

ED-36. The chief academic officer of a medical education program must have sufficient resources and authority to fulfill his or her responsibility for the management and evaluation of the curriculum.

The dean often serves as the chief academic officer, with ultimate individual responsibility for the design and management of the medical education program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to a vice dean or associate dean.

Examples of the kinds of resources needed by the chief academic officer to ensure effective delivery of the medical education program include:

- Adequate numbers of teachers who have the time and training necessary to achieve the medical education program's objectives.
- Appropriate teaching space for the methods of pedagogy employed in the medical education program.
- Appropriate educational infrastructure (e.g., computers, audiovisual aids, laboratories).
- Adequate educational support services (e.g., examination grading, classroom scheduling, faculty training in methods of teaching and assessment).
- Adequate support and services for the efforts of the curriculum management body and for any interdisciplinary teaching efforts that are not supported at a departmental level.

The chief academic officer must have explicit authority to ensure the implementation and management of the medical education program and to facilitate change when modifications to the curriculum are determined to be necessary.

ED-37. A faculty committee of a medical education program must be responsible for monitoring the curriculum, including the content taught in each discipline, so that the program's educational objectives will be achieved.

The committee, working in conjunction with the chief academic officer, should ensure that each academic period of the curriculum maintains common standards for content. Such standards should address the depth and breadth of knowledge required for a general professional education, the currency and relevance of content, and the extent of redundancy needed to reinforce learning of complex topics. The final year should complement and supplement the

curriculum so that each medical student will acquire appropriate competence in general medical care regardless of subsequent career specialty.

ED-38. The committee responsible for the curriculum at a medical education program, along with program's administration and leadership, must develop and implement policies regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during clinical clerkships (or, in Canada, clerkship rotations).

Attention should be paid to the time commitment required of medical students, especially during the clinical years. Medical students' hours should be set after taking into account the effects of fatigue and sleep deprivation on learning, clinical activities, and health and safety.

ED-39. The chief academic officer of a medical education program must be responsible for the conduct and quality of the educational program and for ensuring the adequacy of faculty at all instructional sites.

ED-40. The principal academic officers at each instructional site of a medical education program must be administratively responsible to the program's chief academic officer.

ED-41. The faculty in each discipline at all instructional sites of a medical education program must be functionally integrated by appropriate administrative mechanisms.

The medical education program should be able to demonstrate the means by which faculty at each instructional site participate in and are held accountable for medical student education that is consistent with the objectives and performance expectations established by the course or clerkship (or, in Canada, clerkship rotation) leadership. Mechanisms to achieve functional integration may include regular meetings or electronic communication, periodic visits to all instructional sites by the course or clerkship rotation leadership, and sharing of student assessment data, course or clerkship/clerkship rotation evaluation data, and other types of feedback regarding faculty performance of their educational responsibilities.

ED-42. A medical education program must have a single standard for the promotion and graduation of medical students across all instructional sites.

ED-43. A medical education program must assume ultimate responsibility for the selection and assignment of all medical students to all instructional sites or educational tracks. There must be a process whereby a medical student with an appropriate rationale can request an alternative assignment when circumstances allow for it.

A medical education program having multiple instructional sites or distinct educational tracks is responsible for determining the specific instructional site or track for each medical student. That responsibility should not preclude medical students from obtaining alternative assignments if appropriate reasons are given (e.g., demonstrable economic or personal hardship) and if the educational activities and resources involved allow for such reassignment. It is understood, however, that movement among campuses may not be possible (e.g., because the instructional sites may offer different curricular tracks).

ED-44. In a medical education program, medical students assigned to each instructional site should have the same rights and receive the same support services.

ED-45. *Currently, there is no standard ED-45.*

E. Evaluation of Program Effectiveness

ED-46. A medical education program must collect and use a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which its educational objectives are being met.

> The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses and clerkships (or, in Canada, clerkship rotations) and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program objectives, including the professional behavior of its graduates.

ED-47. In assessing program quality, a medical education program must consider medical student evaluations of their courses, clerkships (or, in Canada, clerkship rotations), and teachers, as well as a variety of other measures.

> It is expected that the medical education program will have a formal process to collect and use information from medical students on the quality of courses and clerkships/clerkship rotations. The process could include such measures as questionnaires (written or online), other structured data collection tools, focus groups, peer review, and external evaluation.

III. MEDICAL STUDENTS

A. Admissions

1. Premedical Requirements

MS-1. Through its requirements for admission, a medical education program should encourage potential applicants to acquire a broad undergraduate education, including study of the humanities, the natural sciences, and the social sciences.

> Ordinarily, four years of undergraduate education are necessary to prepare for entrance into an M.D. degree program. However, some special programs (e.g., combined baccalaureate-M.D. programs) may permit a reduction in this time period. A broad-based undergraduate education that includes the social sciences, history, arts, and languages is increasingly important for the development of physician competencies outside of the scientific knowledge domain.

MS-2. A medical education program should restrict its premedical course requirements to those deemed essential preparation for successful completion of its curriculum.

2. Selection

MS-3. The faculty of an institution that offers a medical education program must develop criteria, policies, and procedures for the selection of medical students that are readily available to potential and current applicants and their collegiate advisors.

MS-4. The final responsibility for selecting students to be admitted for medical study must reside with a duly constituted faculty committee.

Persons or groups external to the medical school may assist in the evaluation of applicants but should not have decision-making authority.

MS-5. A medical education program must have a sufficiently large pool of applicants who possess national level qualifications to fill its entering class.

At a medical education program, the size of the entering class and of the medical student body as a whole should be determined by both the number of qualified applicants and the adequacy of critical resources, including:

- Finances.
- Size of the faculty and the variety of academic fields they represent.
- Library and information systems resources.
- Number and size of classrooms, laboratories, and instructional sites for clinical education.
- Patient numbers and variety.
- Medical student services.
- Instructional equipment.
- Space for the faculty.

Class size considerations should also include the following factors:

- The need to share resources to educate graduate or other students within the sponsoring institution.
- The size and variety of programs of graduate medical education.
- Responsibilities for continuing education, patient care, and research.

MS-6. A medical education program must select for admission medical students who possess the intelligence, integrity, and personal and emotional characteristics necessary for them to become effective physicians.

MS-7. At a medical education program, the selection of individual medical students for admission must not be influenced by any political or financial factors.

MS-8. A medical education program must develop programs or partnerships aimed at broadening diversity among qualified applicants for medical school admission.

Because graduates of U.S. and Canadian medical schools may practice anywhere in their respective countries, it is expected that an institution that offers a medical education program will recognize its collective responsibility for contributing to the diversity of the profession as a whole. To that end, a medical education program should work within its own institutions and/or collaborate with other institutions to make admission to medical education programs more accessible to potential applicants of diverse backgrounds. Institutions can accomplish that aim through a variety of approaches, including, but not limited to, the development and institutionalization of pipeline programs, collaborations with institutions and organizations that serve students from disadvantaged backgrounds, community service activities that heighten awareness of and interest in the profession, and academic enrichment programs for applicants who may not have taken traditional pre-medical coursework.

MS-9. A medical education program must develop and publish technical standards for the admission of applicants with disabilities, in accordance with legal requirements.

MS-10. A medical education program's catalog and other informational, advertising, and recruitment materials must present a balanced and accurate representation of the mission and objectives of the program, state the requirements for the M.D. degree and all associated joint degree programs, provide the most recent academic calendar for each curricular option, and describe all required courses and clerkships (or, in Canada, clerkship rotations) offered by the program.

MS-11. A medical education program's catalog or other informational materials must enumerate the program's criteria for selecting students for admission and describe the application and admission processes.

3. Visiting and Transfer Students

MS-12. The resources used by an institution that offers a medical education program to accommodate the requirements of any visiting and transfer medical students must not significantly diminish the resources available to already enrolled medical students.

MS-13. At a medical education program, a potential transfer student should demonstrate achievements in premedical education and prior medical education comparable to those of the medical students in the class that he or she would join.

MS-14. Prior coursework taken by a medical student who is accepted for transfer or admission to advanced standing at a medical education program must be compatible with the coursework at the level of the program to be entered.

MS-15. A transfer medical student should be accepted into the final year of a medical education program only in rare circumstances.

MS-16. A host institution offering a medical education program should verify the credentials of each visiting medical student, maintain a complete roster of each visiting student, approve his or her assignments, and provide a performance assessment to his or her home institutions.

The institution that offers a medical education program is expected to establish protocols or requirements for health records, immunizations, exposure to infectious agents or environmental hazards, insurance, and liability protection comparable to those for its enrolled medical students.

MS-17. A medical student visiting from another medical education program for clinical clerkships (or, in Canada, clerkship rotations) and electives must possess qualifications equivalent to those of the medical students they would join in these experiences.

B. Medical Student Services

1. Academic and Career Counseling

MS-18. A medical education program must have an effective system of academic advising for medical students that integrates the efforts of faculty members, course directors, and student affairs officers with its counseling and tutorial services.

There should be formal mechanisms at the medical education program for medical student mentoring and advocacy at each instructional site. The roles of various participants in the advisory system should be defined and disseminated to all medical students. A medical student should have the option of obtaining advice about academic issues or academic counseling from individuals who have no role in making promotion or assessment decisions about him or her.

MS-19. A medical education program must have an effective system in place to assist medical students in choosing elective courses, evaluating career options, and applying to residency programs.

MS-20. If a medical student at a medical education program is permitted to take electives at another medical education program or institution, there should be a centralized system in the dean's office at the home program to review the proposed extramural electives prior to approval and to ensure the return of a performance assessment by the host program.

MS-21. The process of applying for residency programs at a medical education program should not disrupt the general medical education of its medical students.

A medical student should not be exempted from any required educational experiences or assessment exercises by the medical education program in order to pursue other activities intended to enhance his or her likelihood of obtaining a desired residency position.

MS-22. A medical education program should not provide a Medical Student Performance Evaluation/Dean’s Letter required for the residency application of a medical student until November 1 of the student's final year.

2. Financial Aid Counseling and Resources

MS-23. A medical education program must provide its medical students with effective financial aid and debt management counseling.

In providing financial aid services and debt management counseling, the medical education program should alert medical students to the impact of noneducational debt on students' cumulative indebtedness.

MS-24. A medical education program should have mechanisms in place to minimize the impact of direct educational expenses on medical student indebtedness.

As key indicators of the medical education program's compliance with this standard, the LCME and the CACMS consider average medical student debt, including the debt of current students and graduates and trends over the past several years; the total number of medical students with scholarship support and average scholarship support per student; the percentage of total financial need supported by institutional and external grants and scholarships; and the presence of activities at the programmatic or institutional levels to enhance scholarship support for medical students. In addition, the LCME and the CACMS will consider the entire range of other activities in which the program could engage (e.g., limiting tuition increases, supporting students in acquiring external financial aid).

MS-25. An institution that offers a medical education program must have clear and equitable policies for the refund of a medical student's tuition, fees, and other allowable payments.

3. Health Services and Personal Counseling

MS-26. A medical education program must have an effective system of personal counseling for its medical students that includes programs to promote the well-being of medical students and facilitate their adjustment to the physical and emotional demands of medical education.

MS-27. A medical education program must provide medical students with access to diagnostic, preventive, and therapeutic health services.

MS-27-A. The health professionals at a medical education program who provide psychiatric/psychological counseling or other sensitive health services to a medical student must have no involvement in the academic assessment or promotion of the medical student receiving those services.

MS-28. A medical education program must make health insurance available to each medical student and his or her dependents and provide each medical student with access to disability insurance.

MS-29. A medical education program should follow accepted guidelines in determining immunizations requirements for its medical students.

A medical education program in the U.S. should follow guidelines issued by the Centers for Disease Control and Prevention, along with those of relevant state agencies. A medical education program in Canada should follow the guidelines of the Laboratory Center for Disease Control and relevant provincial agencies.

MS-30. A medical education program must have policies that effectively address medical student exposure to infectious and environmental hazards.

The medical education program's policies regarding medical student exposure to infectious and environmental hazards should include: 1) the education of medical students about methods of prevention; 2) the procedures for care and treatment after exposure, including a definition of financial responsibility; and 3) the effects of infectious and environmental disease or disability on medical student learning activities. All registered students (including visiting students) should be informed of these policies before undertaking any educational activities that would place them at risk.

C. The Learning Environment

MS-31. In a medical education program, there should be no discrimination on the basis of age, creed, gender identity, national origin, race, sex, or sexual orientation in any of the program's activities.

MS-31-A: A medical education program must ensure that its learning environment promotes the development of explicit and appropriate professional attributes in its medical students (i.e., attitudes, behaviors, and identity).

The medical education program, including its faculty, staff, medical students, residents, and affiliated instructional sites, shares responsibility for creating an appropriate learning environment. The learning environment includes both formal learning activities and the attitudes, values, and informal "lessons" conveyed by individuals who interact with the medical student. These mutual obligations should be reflected in agreements (e.g., affiliation agreements) at the institutional and/or departmental levels.

It is expected that a medical education program will define the professional attributes it wishes its medical students to develop in the context of the program's mission and the community in which it operates. Such attributes should also be promulgated to the faculty and staff of the medical education program. As part of their formal training, medical students should learn the importance of demonstrating the attributes of a professional and understand the balance of privileges and obligations that the public and the profession expect of a physician. Examples of professional attributes are available from such resources as the American Board of Internal Medicine's Project Professionalism or the AAMC's Medical School Objectives Project.

The medical education program and its faculty, staff, medical students, and residents should also regularly evaluate the learning environment to identify positive and negative influences on the maintenance of professional standards and conduct and develop appropriate strategies to enhance the positive and mitigate the negative influences. The program should have suitable mechanisms available to identify and promptly correct recurring violations of professional standards.

MS-32. A medical education program must define and publicize the standards of conduct for the faculty-student relationship and develop written policies for addressing violations of those standards.

The standards of conduct need not be unique to the medical education program; they may originate from other sources (e.g., the parent institution). Mechanisms for reporting violations of these standards (e.g., incidents of harassment or abuse) should ensure that the violations can be registered and investigated without fear of retaliation.

The medical education program's policies also should specify mechanisms for the prompt handling of such complaints and support educational activities aimed at preventing inappropriate behavior.

MS-33. A medical education program must publicize to all faculty and medical students its standards and procedures for the assessment, advancement, and graduation of its medical students and for disciplinary action.

MS-34. A medical education program must have a fair and formal process in place for taking any action that may affect the status of a medical student.

The medical education program's process should include timely notice of the impending action, disclosure of the evidence on which the action would be based, an opportunity for the medical student to respond, and an opportunity to appeal any adverse decision related to promotion, graduation, or dismissal.

MS-35. Medical student educational records at a medical education program must be confidential and made available only to those members of the faculty and administration with a need to know, unless released by the medical student or as otherwise governed by laws concerning confidentiality.

MS-36. A medical student enrolled in a medical education program must be allowed to review and challenge his or her records.

MS-37. A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site.

IV. FACULTY

A. Number, Qualifications, and Functions

FA-1. *There is currently no standard FA-1*.

FA-2. A medical education program must have a sufficient number of faculty members in the subjects basic to medicine and in the clinical disciplines to meet the needs and missions of the program.

In determining the number of faculty needed for the medical education program, the program should consider the other responsibilities that its faculty may have in other academic programs and in patient care activities required to conduct meaningful clinical teaching across the continuum of medical education.

FA-3. A person appointed to a faculty position in a medical education program must have demonstrated achievements commensurate with his or her academic rank.

FA-4. A member of the faculty in a medical education program must have the capability and continued commitment to be an effective teacher.

Effective teaching requires knowledge of the discipline and an understanding of curricular design and development, curricular evaluation, and methods of instruction. Faculty members involved in teaching, course planning, and curricular evaluation should possess or have ready access to expertise in teaching methods, curricular development, program evaluation, and medical student assessment. Such expertise may be supplied by an office of medical education or by faculty and staff members with backgrounds in educational science.

Faculty involved in the development and implementation of a course, clerkship (or, in Canada, clerkship rotation), or larger curricular unit should be able to design the learning activities and corresponding student assessment and program evaluation methods in a manner consistent with sound educational principles and the institution's stated educational objectives.

A community physician appointed to the faculty of a medical education program, on a part-time basis or as a volunteer, should be an effective teacher, serve as a role model for medical students, and provide insight into contemporary methods of providing patient care.

Among the types of evidence indicating compliance with this standard are the following:

- Documented participation of the faculty member in professional development activities related specifically to teaching and assessment.
- Attendance at regional or national meetings on educational affairs.
- Evidence that the faculty member's knowledge of his or her discipline is current.

FA-5. A faculty member in a medical education program should have a commitment to continuing scholarly productivity that is characteristic of an institution of higher learning.

FA-6. The faculty of a medical education program must make decisions regarding the admission, promotion, and graduation of its medical students and must provide academic and career counseling for medical students.

B. Personnel Policies

FA-7. There must be clear policies in place at a medical education program for faculty appointment, renewal of appointment, promotion, granting of tenure, and dismissal that involve the faculty, the appropriate department heads, and the dean.

FA-8. A medical education program should have policies in place that deal with circumstances in which the private interests of a faculty or staff member may be in conflict with his or her official institutional or programmatic responsibilities.

FA-9. A medical education program should provide each faculty member with written information about his or her term of appointment, responsibilities, lines of communication, privileges and benefits, and, if relevant, the policy on practice earnings.

FA-10. A faculty member of a medical education program should receive regularly scheduled feedback on his or her academic performance and progress toward promotion and, when applicable, tenure.

Feedback should be provided by departmental leadership or, if relevant, by other programmatic or institutional leadership.

FA-11. A medical education program must provide opportunities for professional development to each faculty member to enhance his or her skills and leadership abilities in education and research.

C. Governance

FA-12. At a medical education program, the dean and a committee of the faculty should determine policies for the program.

The committee that, with the dean, determines policies for the medical education program typically consists of the heads of major departments and may be organized in any manner that brings reasonable and appropriate faculty influence into the governance and policymaking processes of the program.

FA-13. A medical education program should ensure that there are mechanisms in place for direct faculty involvement in decisions related to the program.

Important areas in which direct faculty involvement is expected include admissions, curriculum development and evaluation, and student promotions. Faculty members also should be involved in decisions about any other mission-critical areas. Strategies for assuring direct faculty participation may include peer selection or other mechanisms that bring a broad faculty perspective to the decision-making process, independent of departmental or central administration points of view. The quality of an educational program may be enhanced by the participation of volunteer faculty in faculty governance, especially in defining educational goals and objectives.

FA-14. A medical education program must establish mechanisms to provide all faculty members with the opportunity to participate in the discussion and establishment of policies and procedures for the program, as appropriate.

Participation by all faculty members in the discussion and establishment of policies and procedures for the program may be facilitated, for example, by:

- Ease of access to committee meeting agendas and minutes;
- Program-wide dissemination of draft policies and procedures for faculty members' review;
- Provision of opportunities for faculty members to comment on draft policies and procedures to program leaders prior to their finalization and implementation; or
- Faculty meetings.

V. EDUCATIONAL RESOURCES

ER-1. A medical education program must notify the LCME and the CACMS, when applicable, of any substantial change in the number of enrolled medical students or in the resources available to the institution, including the faculty, physical facilities, or finances.

If the medical education program plans to increase its entering medical student enrollment above the threshold of 10% or 15 medical students in one year, or 20% in three years, the program is required to provide prior notification to the LCME and the CACMS, when applicable. Notification to the LCME must occur by January 1st of the year preceding expansion; notification to the CACMS must occur by September 1st of the year preceding the planned expansion. This notification is required for a medical education program planning to increase class size on its main campus and/or in existing functionally separate campuses (without any expansion in the curriculum years that the functionally separate campus covers).

A medical education program that plans to start a new functionally separate campus or to expand an existing functionally separate campus (e.g., from a one-year or two-year program to a four-year program) is required to provide notification of the plans to the LCME and to the CACMS, when applicable, by January 1st of the year preceding the planned creation or expansion of the functionally separate campus.

A. Finances

ER-2. The present and anticipated financial resources of a medical education program must be adequate to sustain a sound program of medical education and to accomplish other programmatic and institutional goals.

The costs of conducting an accredited educational program leading to the M.D. degree should be supported from diverse sources (e.g., income from tuition, endowments, earnings by the faculty, support from the parent institution, annual gifts, grants from organizations and individuals, appropriations by government). Evidence for compliance with this standard will include documentation of adequate financial reserves to maintain the medical education program in the event of unexpected revenue losses and demonstration of effective fiscal management of the medical education program's budget.

ER-3. Pressure for institutional self-financing must not compromise the educational mission of the medical education program or cause it to enroll more medical students than its total resources can accommodate.

Reliance on medical student tuition should not be so great that the quality of the medical education program is compromised by the need to enroll or retain inappropriate numbers of medical students or medical students whose qualifications are substandard.

B. General Facilities

ER-4. A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals.

The facilities of the medical education program should include offices for faculty, administrators, and support staff; laboratories and other space appropriate for the conduct of research; medical student classrooms and laboratories; lecture hall(s) sufficiently large to accommodate a full year's class and any other students taking the same courses; space for medical student use, including medical student study space; space and equipment for library and information access; and space for the humane care of animals when animals are used in teaching or research.

ER-5. A medical education program should have appropriate security systems in place at all instructional sites.

C. Clinical Teaching Facilities

ER-6. A medical education program must have, or be assured the use of, appropriate resources for the clinical instruction of its medical students.

> The clinical resources at the medical education program should be sufficient to ensure the breadth and quality of ambulatory and inpatient teaching. These resources include adequate numbers and types of patients (e.g., acuity, case mix, age, gender) and physical resources.

ER-7. Each hospital or other clinical facility of a medical education program that serves as a major instructional site for medical student education must have appropriate instructional facilities and information resources.

> Appropriate instructional facilities at each hospital or other clinical facility include areas for individual medical student study, conferences, and large group presentations (e.g., lectures). Sufficient information resources, including library holdings and access to other library systems, must either be present in the hospital or other clinical facility or readily available in the immediate vicinity. A sufficient number of computers must be readily available that allow access to the Internet and to other educational software. Call rooms and lockers, or other secure space to store personal belongings, should be available for medical student use.

ER-8. Required clerkships (or, in Canada, clerkship rotations) at a medical education program should be conducted in health care settings in which resident physicians in accredited programs of graduate medical education, under faculty guidance, participate in teaching the medical students.

> It is understood that, at some medical education programs, there may not be resident physicians at some community hospitals or community clinics or the offices of community-based physicians. In those cases, medical students must be adequately supervised by attending physicians.

ER-9. A medical education program must have written and signed affiliation agreements in place with its clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

> Written agreements are necessary with hospitals that are used regularly as inpatient sites for core clinical clerkships (or, in Canada, clerkship rotations). Additionally, affiliation agreements may be warranted with other instructional sites that have a significant role in the clinical education program.
>
> Affiliation agreements should address, at a minimum, the following topics:
>
> - The assurance of medical student and faculty access to appropriate resources for medical student education.
> - The primacy of the medical education program over academic affairs and the education/assessment of medical students.
> - The role of the medical education program in the appointment and assignment of faculty members with responsibility for medical student teaching.

- Specification of the responsibility for treatment and follow-up when a medical student is exposed to an infectious or environmental hazard or other occupational injury.

If department heads of the medical education program are not also the clinical service chiefs at affiliated institutions, the affiliation agreement must confirm the authority of the department head to ensure faculty and medical student access to appropriate resources for medical student education.

The medical education program should advise the LCME and the CACMS, when applicable, of anticipated changes in affiliation status of the program's clinical facilities.

ER-10. In the relationship between a medical education program and its clinical affiliates, the educational program for medical students must remain under the control of the program's faculty at each instructional site.

Regardless of the location in which clinical instruction occurs, department heads and faculty of the medical education program must have authority consistent with their responsibility for the instruction and assessment of medical students.

The responsibility of the clinical facility for patient care should not diminish or preclude opportunities for medical students to undertake patient care duties under the appropriate supervision of the medical education program's faculty and residents.

D. Information Resources and Library Services

ER-11. A medical education program must have access to well-maintained library and information facilities that are sufficient in size, breadth of holdings, and information technology to support its educational and other missions.

At the medical education program, there should be physical or electronic access to leading biomedical, clinical, and other relevant periodicals, the current numbers of which should be readily available. The library and other learning resource centers must be equipped to allow medical students to access information electronically and to use self-instructional materials.

ER-12. The library and information services staff at a medical education program must be responsive to the needs of the program's faculty, residents, and medical students.

At the medical education program, a professional staff should supervise the library and information services and provide instruction in their use. The library and information services staff should be familiar with current regional and national information resources and data systems and with contemporary information technology.

Both medical education program officials and library and information services staff should facilitate access of faculty, residents, and medical students to information resources, addressing their needs for information during extended hours and at each instructional site.

University of Toronto Faculty of Medicine

Taskforce on Medical Academies

SWOT Working Group – Final Report

December 13, 2010

Taskforce on Medical Academies

SWOT Working Group – Final Report

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Appendices

Taskforce on Medical Academies - SWOT Working Group Preliminary Report

Introduction

The Faculty of Medicine established the Academy structure in 1992 with the aim of improving the student experience as more of the undergraduate curriculum was being delivered in small groups, distributed from the Medical Sciences Building , within an enhanced partnership between the University and the fully affiliated teaching hospitals. The Academies also provided links with community agencies for curriculum delivery. Four Academies (Fitzgerald, Boyd, Wightman and Peters) were initially created, subsequently merging into three Academies in 1994 (Fitzgerald, Peters-Boyd, and Wightman-Berris). The Academy System was last formally reviewed in 1996. Over the past 14 years, the Academy System has evolved and the new Mississauga Academy of Medicine (MAM) is set to launch in September 2011.

A number of factors set the context for the review of the Medical Academies.

- The undergraduate expansion over the past ten years has resulted in first year intake increases of 25% from 1990/00 to 2009/10. The expansion in student numbers and the launch of the Mississauga Academy of Medicine in 2011 have an impact on the Academy system.
- The Distributed Education Review in August 2009 highlighted the strengths of the existing Academy System and suggested a review of the model's vision and structure to further integrate it into both the community and the other education programs within the Faculty of Medicine.
- The Faculty of Medicine external review in 2010
- The development of an Integrated Medical Education framework and principles
- Association of Faculties of Medicine of Canada Future of Medical Education Report (FMEC) 2009
- The renegotiation of hospital affiliation agreements in 2011-12; and,
- Upcoming Undergraduate Medical Education accreditation in 2012.

These conditions provide the framework by which the Academy System can be reviewed in detail within the context of integrated (medical) education.

Overview of Academies

The Academies include the following:

Fitzgerald Academy – includes St. Michael's Hospital and partnerships with St. Joseph's Health Centre and Bridgepoint Health

Peters-Boyd (PB) Academy – includes Sunnybrook Health Sciences Centre, Women's College Hospital and North York General Hospital and partnerships with Markham Stouffville Hospital

Wightman-Berris (WB) Academy – includes University Health Network and Mt. Sinai Hospital and partnerships with Toronto East General Hospital, Humber River Regional Hospital and Baycrest

Mississauga Academy of Medicine (MAM)(to be launched August 2011)– includes the Mississauga Campus of the University of Toronto, Credit Valley Hospital and Trillium Health Centre

The distribution of students for 2010 – 11 is as follows:

	Preclerkship		Clerkship		Total by Academy
	Year 1	Year 2	Year 3	Year 4	
Wightman-Berris	110	102	108	103	423
Fitzgerald	72	62	55	53	242
Peters-Boyd	68	65	64	68	265
Totals by year	250	229	227	224	**930**

In 2010-11, 42 Year 1 students and 18 Year 2 students are undertaking ASCM courses in Mississauga.

SWOT Working Group Consultation

The SWOT Working Group[1] consultation included interviews(17), focus groups (5) and surveys (2) as outlined in Appendix II. The Working Group was provided with the *Academy Evaluation* prepared by the Inter-Academy Executive Council (IAEC) of the Medical Society. Overall, this consultation provides a snapshot of perspectives across a spectrum of stakeholders, including senior education and administrative leaders, students, course directors, and teaching faculty from across the Academy System. The findings reflect the input of select individuals and should not be viewed to be fully representative of all individuals within any particular group.

The following presents the general findings of the consultation under four major categories. These include:

Educational Experience and Learning Environment

Academy Structure and Partnerships

Curriculum Delivery

Advancing FMEC Recommendations

[1] SWOT Working Group membership outlined in Appendix I

Consultation Findings

Educational Experience and Learning Environment

The SWOT consultation process explored themes and received input that relate to several accreditation standards:

ED-8. The curriculum of a medical education program must include comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline.

ED-43 A medical education program must assume ultimate responsibility for the selection and assignment of all medical students to all instructional sites or educational tracks. There must be a process whereby a medical student with an appropriate rationale can request an alternative assignment when circumstances allow for it.

ED-44. In a medical education program, medical students assigned to each instructional site should have the same rights and receive the same support services.

MS-37. A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional sites.

ER-7. Each hospital or other clinical facility of a medical education program that serves as a major instructional site for medical student education must have appropriate instructional facilities and information resources.

IS-12 Medical students should have opportunities to learn in academic environments that permit interaction with students enrolled in other health professions, graduate and professional degree programs and in clinical environments that provide opportunities for interaction with physicians in graduate medical education and continuing medical education.

MS-26 A medical education program must have an effective system of personal counselling for its medical students that includes programs to promote the well-being of medical students and facilitate their adjustment to the physical and emotional demands of medical education.

Perspectives on the educational experience and learning environment were provided through the IAEC Academy Evaluations Report, the student focus groups, Academy Directors focus group, interviews with education leaders, and the surveys of course directors and teaching faculty.

The following points reflect the consultation findings.

Strengths:

- Quantitative measures such as course evaluations, rotation evaluations, student grades, and success at CaRMs point to comparable educational experiences and outcomes across all Academies.

- The *Medical Society Inter-Academy Executive Council (IAEC) Academy Evaluations* identify comparable teaching quality across all Academies.

- Academies facilitate smaller communities of students within a large class size; fostering a stable learning environment for students, and connectedness to an anchor teaching hospital and clinical faculty. Being based at one hospital allows students to "figure out the logistics" of the system and integrate more easily to different services and rotations.

- Academies provide mentoring and support for students with academic or personal problems as well as support and guidance for students pursuing specific academic interests.

- Academies provide the infrastructure and facilities that support medical education, including study space, lounge areas, lockers, computers, storage. The facilities vary across instructional sites.

- Students value the opportunity to rank or choose Academies – both prior to first year and in second year for ranking choices for clerkship.

- Many students report an exceptional learning experience with great teachers and great support; appreciate the excellent administrative support.

Challenges

- While educational experiences are generally comparable, students have pointed out examples where experiences differ noticeably across the Academies; for example, the clerkship Medicine rotation with the PB Academy is reported to have substantially greater caseload (twice the consults) and expectations for students than that of the other two Academies. Also differences identified in the clerkship surgery rotation in terms of teaching, focus on service, incorporation of community clinics. It has been suggested by students that such experiences have an impact on student rankings of Academies for clerkship. Some students identify that on certain rotations, the clinical environment and patient mix of TGH, MSH, and TWH are too highly specialized for their perceived learning needs.

- Preclerkship students identify that the sense of community, camaraderie or belonging to an academy as important for their overall experience. In two of the Academies, PB and WB, where students are distributed across multiple sites, students report feeling disconnected from one another. CVH students report connection to their own group but little connection to WB, which

is their anchor Academy. It has been suggested that there may be an optimal size with respect to student numbers for an Academy to foster a sense of community.

- Disparities exist across the Academies in terms of facilities (e.g., clinical teaching rooms with equipment; 24 hour accessible study space/ lounge; computers and desks), infrastructure (including communications) and especially travel. Several have identified that the PB Academy has the least in the way of facilities and technology infrastructure. With significant investments in facilities and infrastructure at MAM, the PB Academy may be seen as distinctly disadvantaged.

- Travel is a significant burden (time and cost) for some students. The issue of "equity" with respect to amount of travel time has become a dominant issue with respect to the comparable "student experience", not the comparable educational experience. Students at PB Academy report feeling particularly disadvantaged relative to peers in other Academies with respect to travel; having PBL at Sunnybrook or WCH, ASCM at NYGH and having to travel to multiple places on any day. Students travelling to Credit Valley report high quality experiences but frustrations with the amount of travel relative to classmates.

- Hospital teaching sites vary in what students are allowed to do: e.g., at one site students are not allowed to use PACS, to do dictations, have limited access to call rooms, are not permitted the same access to the electronic patient records and order entry as at other sites. Academies vary in support for or ease of accessing printing, photocopying, photo IDs, parking passes, library access. These supports are important to the learning environment.

- Some students note that the small group sessions (seminars, tutorials, PBL, lab groups) all with the same people is limiting and suggest more mixing across group sessions.

- Generally limited flexibility in tailoring rotations to meet individual preferences; e.g., for someone seeking a generalist experience and having many rotations in highly specialized sites. . Especially in clerkship, "don't put limits on where people can do things; let them demonstrate their priorities by ranking their rotations and assign accordingly".

Opportunities

- General suggestions that more detailed information on Academies and placement sites be provided to students much earlier in the process. Suggestions include more detailed information on-line, on-site interviews at the different Academies and opportunities to meet with preclerkship students based at the different Academies. The two weeks **between offer of admission and acceptance** is viewed as the key time to provide relevant information about the Academies, the patient mix, organizational profiles, including distance from the medical school and travel requirements. This would facilitate academy rankings, could influence

accommodation choices and would better prepare students for the reality of their preclerkship/clerkship experience.

- Academies might play a role in minimizing the travel inequity across student groups, and would need to work across departments and academies to facilitate greater equity in the travel requirements. Opportunities should be considered for changes to the preclerkship curriculum schedule to reduce the travel burden such that students do not travel to multiple sites in one day. Suggestion that community hospitals providing ASCM might also deliver PBL as an option to reduce travel requirements. Options such as clerkship rotations of 6 months in one site and 6 months in another site might also be explored.

- On days that PB students are downtown, they could have access to study sites downtown. This is particularly important during preclerkship years.

- Academies could work in partnership with hospital leaders to achieve greater standardization of policies and procedures such as access to PACs, dictation, etc.....

- Community affiliated hospital experiences provide a balance to the highly specialized tertiary hospital experience.

- The Academies could provide a greater role with tailoring educational plans for clerkship to facilitate diverse learning environments, exposure to mixed patient populations and balance community and specialty environments

Academy Structure and Partnerships

Each Academy is centred in a major teaching hospital(s), termed their anchor hospital. These hospitals are major partners with the University in the academic mission and contribute resources in terms of personnel, facilities and infrastructure to support the Academies.

All of the Academies have established relationships with specific community affiliated hospitals and community agencies (for DOCH). All Academies engage with specialty hospitals, some more than others. The speciality hospitals include SickKids, CAMH, Baycrest, Toronto Rehab and Bridgepoint.

Perspectives on the academy structure and partnerships were drawn from input from interviews with hospital leaders in medical education, Academy Directors focus group, course director and teaching faculty surveys.

Strengths

- Strong support has been voiced for the Academy System as fostering the engagement of major teaching sites and a large number of teaching faculty in contributing to / participating in undergraduate medical education; the Academy System has facilitated decentralization of medical education and the student:clinician interface; enhances student understanding of the clinical environment.

- Academy System is vital to deliver courses such as DOCH, ASCM, courses which include PBL and Portfolio.
- Academy System through the Academy Directors brings superb leadership and University presence to the education enterprise that takes place in the hospitals and community; champions for high quality education; responsibility and accountability for education and student experience/ supports; excellent interface point for building relationships with internal (hospital leaders) and external (other hospitals, community) stakeholders. High quality administrative support at all Academies.
- Anchor hospitals see the Academies as large players in medical education; are proud to have the Academies in their hospitals; acknowledge the hospital investment in this medical education; and view the Academy leadership as senior education leaders in the hospital.
- Community affiliated partners (NYGH, St. Joseph's, TEGH) leadership (e.g. Director Medical Education) identify a strong relationship with a specific Academy, particularly in regard to preclerkship courses; also invest resources in supporting medical education.
- Academies viewed to be critically important in supporting the student experience through a range of student supports.
- One of the greatest benefits of the University of Toronto was identified as the diversity and richness of clinical opportunities. The Academy system needs to be reflective and structured to best facilitate access to this diversity of experiences.

Challenges

- Anchor hospitals and community affiliate hospitals engage in large medical education enterprises with undergraduate medical education representing 25% or less of teaching days, overall. Academies viewed to be most important for supporting preclerkship and less clarity for some with regard to role/ responsibilities in clerkship.
- No formal written agreements that outline the relationships, expectations, decision-making between Academies and community affiliated partners and specialized hospital partners; many suggest that a formal agreement would be helpful; (some do not see the need for a formal agreement); noted that relationships with Academies are not outlined in university-community hospital affiliation agreements[2]

[2] It has been noted that formalizing agreements with community affiliates are likely to fall under the new IME strategy and the establishment of an Office of IME which could address the relationship/expectations of the Academy as part of this strategy.

- Academy relationship with community affiliates should include formal recognition (e.g., on website and documents describing the Academy), eligibility for teaching awards, and compensation for teaching. Community affiliate should have explicit recognition as an integral teaching site of a specific Academy.

- Wide agreement on the importance of communication, transparency, joint planning and collaborative decision-making at two levels: across Academy partners at the overall planning level; and at the operational level around the allocation of students (which may involve the departments).

- Concerns about the infrastructure support, facilities, classrooms, etc.... available in teaching sites to support student groups. Community sites also need administrative support and funding for recruiting teaching faculty, for registering students, and looking after the administrative supports – parking passes, scheduling classrooms, hospital identification, student space and storage, etc... It has been emphasized that these costs are not insignificant and must be recognized. Advanced educational technologies, information systems, videoconferencing, etc will become increasingly critical where distance is an issue.

- Better understanding and clarity needed on funding sources for Academy System and remuneration of teaching. Pointed out the funding should "follow the student". Issues re timely payment for teaching by the University.

- Greater consideration for all Academy sites as to the infrastructure, administrative, clinical teacher support implications with the introduction of a new course (e.g. Portfolio).

- Teaching hospital sites and community affiliates are looking more broadly at educational centres and education infrastructure supporting students of all disciplines, professions; and planning for interprofessional education; planning must be in the context of the broader education enterprise.

- The role of the university departments and relationship within academy structure is not well defined.

Opportunities

- Academies are based in hospitals and networks which are different from one another and have distinct characteristics. While it is important to promote comparable education across the Academies, there may great value in promoting, to a greater degree than is currently done, the unique characteristics and learning environments at the different Academies.

- Potentially an opportunity to reconfigure the Academy hospital groupings. E.g., should WCH continue to be part of PB Academy? With greater numbers of community teaching hospital partners, there is the potential for recalibrating the Academies with a different mix of community teaching hospitals and anchor base hospital which might provide a more balanced exposure to highly specialized and generalist care, different patient population mix, etc. Students and trainees

agree that all sites have some unique characteristics that make them valuable learning experiences. Recommendation is that the combination of experiences offered by the current configuration of hospitals within each Academy should be revisited. Academies could play an increased role in clerkship, coordinating rotations across their network of teaching sites, supporting clerks in elective and other choices, and ensuring an appropriate balance of learning environments across specialized, community, and ambulatory settings.

- Potential for Academy System to enable more cohesive clerkship rotations at community affiliates with greater continuity for some students ; supports a generalist approach for those students seeking it, greater interprofessional opportunities with continuity.
- Academies are key to enabling/ facilitating interprofessional education.
- While postgraduate trainees did not see a role for the Academy in supporting residents, as this function is well supported by the Programs and Program Directors, they did support an active role for residents in teaching and mentoring students at their respective Academies..
- Potential for Academies playing a greater role in reaching out to organizations and agencies that are not currently participating in education to build/ support their educational engagement.
- Enhanced/ strengthened communications, joint planning, decision-making; potential for more formal agreements or governance clarity. The Academy system would benefit from an overall vision statement with clear goals and objectives. This would provide a framework for all Academies to establish their individual goals and objectives and clarify the expectations for all partners within the respective Academies.
- The academies could play a greater role in facilitating inter-departmental collaboration in the management delivery integrated approaches to curriculum delivery and faculty development and fostering communities of teachers beyond departmental lines.

Curriculum Delivery

The Academies have prime responsibility for supporting several preclerkship courses including ASCM and DOCH as well as arranging for PBL for other preclerkship courses.

In clerkship, the Academies provide more support for scheduling students in specific rotations, e.g., medicine, surgery, anaesthesia, obstetrics/ gynecology, psychiatry and for Portfolio.

The findings related to curriculum delivery were drawn predominantly from the Academy Directors focus group and the results of the surveys for course directors and teaching faculty. Student input was provided through the *Academy Evaluations Report* and student focus groups.

Strengths:

- Overall, Academies are highly effective in recruiting teachers and preceptors for course delivery, in scheduling students, in coordinating DOCH placements and marking papers and a range of administrative aspects for DOCH courses. "*The Academy is the network which can deliver the multiple needs of this course – both patients and faculty*".

- Academies support students in academic difficulty; communicate and distribute information across faculty and students; provide administrative supports of booking, scheduling.

- Great administrative support for teachers, course directors; effective organization of student flow, teaching materials, and arrangements for teaching; Academies highly engaged and supportive in rolling out new curriculum e.g., Portfolio and new Transition to Clerkship Clinical skills day.

- Academies which have had reduced numbers of inpatients for teaching ASCM students have created programs to recruit outpatients for teaching eg. VIP Program at WB and Patient Partners at PB.

Challenges

- Academies differ in the administrative support and approach to a particular course. For example, the diversity of DOCH placements and administrative rules for supervisors and markers are different at one academy.

- Some course content elements must be delivered by one individual at all three Academies (e.g., during Transition to Clerkship)

- Student expectations that all curriculum be standardized or identical at all Academies; it may be equivalent or comparable but not always exactly the same.

Opportunities

- Academies might strengthen their community linkages, specifically with community agencies.

- Enhanced academy - course partnerships to ensure/ promote comparable educational experiences.

- Potential for innovative approaches to identifying appropriate mix of patients for teaching.

- PB Academy includes WCH which presents a unique learning environment as a freestanding ambulatory care teaching hospital; increase the numbers of students who can rotate through the site.

- Potential for enhancing faculty development opportunities for teaching faculty; mentorship; feedback on teaching. Enhancing connections with teaching faculty in community sites. Greater opportunity for resident teaching and training/ supporting residents for teaching. As the number of clinical teaching faculty increase within the Academy system, the importance of formal faculty

development also rises. Targeted faculty development that is aligned with the objectives of courses taught at the Academies will provide more consistency and comparable educational experiences across the sites.

- Some academies in need of enhanced resources for space for teaching and for students.
- Assisting in adopting, leveraging communications technologies, e.g., videoconferencing.

Advancing FMEC recommendations

The Association of Faculties of Medicine in Canada (AFMC) has released its report, *The Future of Medical Education in Canada (FMEC): A Collective Vision for MD Education*. The Report outlines ten recommendations. The SWOT consultation process included inquiries on how the Academies could play a role in advancing some of the FMEC recommendations. The following highlights perspectives provided through interviews and surveys.

FMEC Recommendation	Perspectives on role of Academies
Promote prevention and public health	• Academies already strongly supporting prevention and public health; this can be expanded through DOCH and networking with more agencies • Facilitate student access to hospital-based educational programs that focus on health promotion and prevention • Engage students in the response to emerging public health issues
Address the hidden curriculum	• Academies facilitating the Portfolio will be creating a culturally safe environment to address hidden curriculum • Academies could play a stronger role in facilitating identification and discussion of hidden curriculum with students and faculty • Mentorship programs provide guidance to students in choosing electives, making career choices and in exploring different learning environments (e.g., research, community)
Diversify learning contexts	• Academies facilitate student exposure to multiple learning sites including community sites • Academies assist in balancing learning environments across specialty/ community/ urban/ rural • Enhancing community placements; ensuring variety of patients in ASCM; ensure mix of ambulatory and hospital patients; acute and

FMEC Recommendation	Perspectives on role of Academies
	chronic patient mix
Value Generalism	• Ensure student exposure to generalists and generalist practice • Academies play a role in facilitating a mix of patient populations for student learning
Advance inter- and intra-professional practice	• Academies play an ideal role for integrating IPE in a natural way, not as an overlay or add on, but embedded into the clinical placement • Academies can look for places where IPC is already occurring and can integrate IPE into education and practice; can incorporate both structured and flexible options for the IPE component in a clinical placement • Effective implementation of IPE curriculum in the Academies would include strategies for: students (integrated into their clinical placement); clinical faculty (sufficient training so they can be excellent IPE leaders and facilitators); practice setting (offering clinical settings that model IPC and the type of practices students are learning in IPE); and evaluation, embedding IPE evaluation as part of their regular assessments • Opportunity for residents who have been trained in IPE to teach medical students and clinical clerks
Adopt a competency-based and flexible approach	• Academies do facilitate individual needs for flexibility • Academies could provide different foci to support and facilitate individual scholarly interest of students • Mentorship for students via the Portfolio Group faculty and Academy Directors • Longitudinal experiences (e.g., FMLE) make it challenging to increase flexible approaches
Foster medical leadership	• Academy medical leadership are strong role models for medical leadership; can provide placements, exposure to medical and health leaders; could facilitate linking students to innovative quality

FMEC Recommendation	Perspectives on role of Academies
	initiatives and varied projects • Academies provide a structure to facilitate opportunities for leadership, and for strengthening student understanding of the health care system • Creating opportunities for placements with leaders in medical or health administration, aligned with emerging leadership curriculum

Conclusion

Overall, the Academy System is strong. It has provided undergraduate medical students with a solid educational experience and provides an effective network to accommodate curriculum delivery. Faculty and students recognize the value of having a home base within a large distributed medical school.

There are a number of challenges to address which include some discrepancies in the learning environment, inequities in travel which influence the individual student experience and greater clarity around the role and impact of the Academy system in the student experience. A clear vision statement of the Academy system, with goals and objectives for each academy, would provide a framework for individual Academies to facilitate greater comparability in learning environments between the Academies while allowing for unique strengths of each academy to flourish. A clearly articulated vision for each academy would clarify expectations of the different partners within individual Academies and inform decisions around which community and specialty hospitals are linked with a particular Academy in order to create an appropriate mix of learning contexts based on curricular needs. The Academies could have a greater role in facilitating the departmental, interdepartmental and interprofessional collaboration to deliver innovations in curriculum and to support the FMEC recommendations. Minimum standards for facilities and infrastructure for the Academies should be articulated, with a system in place to ensure that these standards are achieved and recognized when these standards are met and exceeded.

The richness and diversity in clinical opportunities has been identified as a competitive advantage of the University of Toronto medical school. The creation of a fourth Academy and the increase in numbers and involvement of community teaching hospital partners presents the ideal opportunity to revisit the Academy system and determine where modifications and realignments should be made to best enhance access to these diverse learning environments.

Appendix I: SWOT Working Group members

Chair: Jacqueline James, Academy Director Wightman-Berris

Members:

David	Conn	VP, Medical Administration, Baycrest
Mark	Hanson	Associate Dean, Admissions and Student Finance, UGME
Judy	Irvine	Faculty Registrar
Miralem	Mrkonjic	Student
Norman	Rosenblum	(Acting) Vice-Dean, Undergraduate Medical Education
Rayfel	Schneider	Associate Chair, Paediatrics Education
Martin	Schreiber	Preclerkship Director
Molly	Zirkle	Academy Director

Consultants: Helena Axler and Susan Tremblay, Axler & Associates

Appendix II: Consultation

Interviews	Stacey Bernstein – Course Director Paediatrics, SickKids Adrian Brown – previously Director DME; Chief Obstetrics NYGH Vince Chien – previous Academy Director, Fitzgerald Academy Mary Anne Cooper – Academy Director, Peters-Boyd Matt Gysler, Chief of Staff, Credit Valley Hospital Norman Hill, VP Medical Education, Trillium Health Centre Patricia Houston – VP Education St. Michaels Catherine Kelly – Site Coordinator, Women's College Hospital Marcus Law, Director Medical Education – TEGH Wendy Levinson, Chair, Dept of Medicine Leslie Nickell, Associate Dean Health Professions Student Affairs Rick Penciner – Director Medical Education, NYGH Peter Poldre, VP Medical Education – Sunnybrook Anita Rachlis, Clerkship Director Yaron Shargall, previous Director Medical Education – St. Joseph's Health Centre Marie Tassone – Director, Centre for IPE Vincent Woo – CAMH
Focus Groups	Academy Directors (5 attendees) Students – Preclerkship (10 attendees) Students – Clerkship (2 attendees) Postgraduate Trainees – 2 groups (1 attendee) & (6 attendees)
Surveys	UME Course Directors – 17 respondents of 33 invited (51.5% response rate) Teaching Faculty – 20 respondents of 57 invited (35% response rate)

University of Toronto
Faculty of Medicine
Taskforce on Medical Academies Review

Integration Working Group Report

December 15, 2010

Introduction

As one arm of the review of our Medical Academies, the Integration Task Force identified three areas of focus: integration of governance, integration with health disciplines, and integration across the UME-PGME continuum.

The Academy structure is unique; academy directors report jointly to VP's of Education and to the Vice-Dean, which is in itself an example of integration. A comprehensive understanding of the key drivers of successful integration between academy, hospital institution and clinical departments, and between institutions, is needed. There is an opportunity to examine the organizational constructs of the Academies, clarify the roles and responsibilities/authority and the inter-relationships between clinical department Chairs, Chiefs, Academy Directors, and hospital VP's of Education. As the current Community Hospital/Site Affiliation agreements are scheduled to end in 2011, the potential role of the Academies within future agreements can be explored. The partnerships with our community hospitals are highly valued; existing strengths and potential barriers to continued and effective integration need to be identified. A more clearly defined relationship between the fully affiliated and community affiliated hospitals and academies, including accountabilities, future growth, and responsibility to accreditation standards is essential.

Our TAHSN and community hospitals are particularly interested in understanding how interprofessional care and education contributes to the quality of patient care. The integration of all health disciplines within the academy structure has not been fully explored. This is an opportunity to examine how our educational programs can promote and advance new models of care, locally and within the future of the health system and to explore the role of the academies in the development and implementation of integrated health disciplines education and patient care.

While the primary focus of this medical academies review is on the Undergraduate Medical Education program (UME), there is already an existing relationship and overlap with clinical faculty and residents in the delivery of undergraduate and postgraduate curriculum. Further exploration is required to determine if there is a role for the academies to expand and enhance these natural connections between UME and Post-Graduate Medical education (PGME), including continuing education and faculty development.

Methodology

The integration working group, through initial in-depth discussion, developed a framework to approach individual interviews with key stakeholders. Our discussion was also informed by several key documents: the draft Academy Roles/Framework for Governance with Community-Affiliated Teaching Sites: May 5, 2009, the templates for the Affiliation agreements, and the TAHSN Task Force on Valuing Academic Performance Jan 21, 2010 report.

Individual interviews were conducted by the members of our working group with the following key stakeholders:
Hospital CEO's, including fully and community affiliated hospitals and specialty hospitals, Clinical Department Chiefs, Academy Directors, Residency Program Directors, Vice-Dean of PGME, VP of Education, Pre-Clerkship Director, PGME/UME clinical teachers, hospital and University IPE leaders, hospital health disciplines leaders. Further relevant input is expected from the medical student survey, which is currently being analyzed by MedSOC.

Each of the 3 areas of focus, governance, IPE, and UME-PGME had one overarching question, followed by more specific probes. See Appendix 1 for outline of the interview approach.

Embedded in the interview process was the principle that the primary driver for the academy concept is to improve student experience.

Results

For each area of focus, common themes, areas of agreement and potential challenges, will be described.

Governance

Overall, there was widespread support for the concept and the continuance of the academy structure. There was agreement that the academy purpose is to improve student experiences. It was clearly recognized that the academies provide "a home" for the students. They help manage the large size and complexity of the Faculty of Medicine at University of Toronto, by providing a smaller 'home base' for students to relate to, offering a familiar setting and administrative staff. Academies were seen as a very effective structure to provide the administrative and operational functions of curriculum delivery.

The majority of respondents believe that community and specialty hospitals should be formally recognized within academies, however there was no agreement about how this should be accomplished – in general, it seemed that the preference was to formalize the relationship without including academies in the affiliation agreements. This was consistent with a concern to avoid 'imposing' a model on community hospitals, in favour of allowing the evolution of 'organic-problem solving' among hospitals – a process that it is already well underway for some. A recurring theme was that the relationship between community sites and fully affiliated sites within an academy must be created as a partnership in which the community sites are viewed as equal partners. Currently, the academy concept appears to be poorly understood by many; clinical faculty at the 3 community sites who are identified with the academies (Toronto East General, North York General and St. Joseph's) relay that they don't feel part of an academy, rather they relate to their hospital and department.

With new funding arrangements for community-affiliated teaching sites, some of the inequities of resources have begun to be addressed. However, specialty hospitals have not been included in any educational funding formula's and this contributes to feeling undervalued and is seen to compromise the impact that these institutions can have on the educational experience of our students. There was general agreement that equality of resources is critical, however no clear ideas emerged about how this could be accomplished. There were disparate views regarding accountability, roles and responsibilities of the academies ie: monitoring teacher/educational quality, faculty development, although most agreed that academy directors should not have a role in clinical appointments or faculty recruitment.

IPE

The Academy represents a meaningful structure within practice settings to integrate a number of the University of Toronto IPE Curriculum elements into the medical curriculum, thereby validating the IPE learning experience as an integral component, and not an 'add-on' feature. IPE is seen as an effective methodology for the development of the Collaborator CanMeds role across the learning continuum.

It was generally agreed that the current academy space could function as a 'natural homes' for learners across the health professions, promoting early interprofessional socialization and informal learning, however, capacity was identified as the main challenge. There was less support for formally expanding the academies to include responsibility for, or governance of other health professions – some expressed concern that this might 'dilute' the medical training experience.

A number of factors were identified that could act as enablers of IPE learning within the Academy structure, including;

- Create explicit understanding of where IPE integration could most naturally occur for medical students (ie: transition to clerkship, transition to residency, embedding IPE learning within content-specific rotations)
- Expand the Academy to specialty hospitals in order to enable IPE experiences across the continuum of care, and to build the number of medical students trained in the specialty hospitals
- Build further partnerships with community and primary care groups/organizations in order to move beyond the current hospital focus
- Develop a centralized schedule/database to know where learners are in their curriculum
- Align scheduling for some parts of clinical placements/rotations
- Establish shared curriculum time across health professions programs

UME – PGME

Currently, there are varying degrees of involvement in post-graduate education by academy directors, and among our interviewees there was no clear consensus about whether the academy role in PGME should be expanded. There is a strong relationship between post-graduate and undergraduate education in some core PGME programs such as medicine, surgery, psychiatry and family medicine. In these programs, a significant amount of undergraduate teaching is provided by post-graduate trainees, and both undergraduate and post-graduate trainees share the same clinical educational environment.

While it was agreed that undergraduate and postgraduate medical education offices should be (and generally are) in close proximity to each other within the academies, there was weaker support for integrating functionality of postgraduate programming within the academies. Some suggestions included: assisting with resident teacher training and the tracking of resident teacher evaluations, facilitating interdisciplinary educational experiences between trainees from different residency programs, support administrative functions ie: badges, parking, computer training, etc. Currently, when post-graduate trainees are recruited to teach specific undergraduate coursed such as the portfolio course, academy/hospital matching isn't considered – there may be an opportunity to strengthen the academy relationship within such courses.

Recommendations

1. There is strong support to maintain the Academy structure. Academies provide an important 'home base' for students which improves the overall student experience.

2. There is a lack of understanding among the general faculty about the academy structure and their role within an academy, therefore, more education about academies should be provided broadly, including front-line clinical teachers.

3. In addition to increased education about the academies, marketing strategies should be developed to address 'hidden curriculum' issues (ie: community hospitals viewed as "second-class" experience) and improve communication between academies, and both fully and community-affiliated hospitals. Such strategies might include joint websites, including the community hospitals, profiling community teachers, including rotation/site teaching effectiveness scores.

4. Integration of governance can begin by increasing the sense of belonging for the community faculty, thereby supporting a partnership model. Initial approaches to integration could focus on the educational mission and include such activities as joint faculty development.

5. Further discussion and consultation is needed to develop a comprehensive understanding of the mechanisms by which academies can be formally aligned with a variety of institutions.

6. Roles and responsibilites, and the interrelationships between Academy Directors, department Chairs and Chiefs, and hospital VP's of Education requires further exploration and discussion.

7. Academies are recognized as a good conduit for the IPE learning experience, however, it is not recommended to create a formal academy role for 'governing' the IPE curriculum delivery.

8. There is not a strong indication to expand the Academies into the PGME arena; however, there is an opportunity to enhance those relationships that already exist; primarily by supporting post-graduate trainees in their role as clinical teacher to medical students.

Appendix One

ACADEMY REVIEW – INTEGRATION WORKING GROUP
NOVEMBER 1, 2010

1. Is there a role for the Academy to go beyond medical education to include/integrate other health disciplines?

   ☐ Yes ☐ No

   If NO: What are the advantages to a uni-professional Academy. What alternate structure/mechanism would provide for collaborative interface in education

   If YES: How would this integrated health disciplines Academy be structured? How would it work

   Some Prompt Ideas:
   Time, Space, Coordination, People, Communication
   We have been asked to stay high level – conceptual vs operational

2. Should an Academy have any role in post graduate medical education?
3.

   ☐ Yes ☐ No

   If NO: What are the advantages/disadvantages to UME only academies

   If YES: How might this integration look/work?

   Some prompt ideas:
   - One model is Director of Post-Graduate Education – St. Mike's – is this best practice?
   - Should we consider both Post-Grad/Under-grad Academy Directors
   - What would be the scope of the role(s)?
   - Collaboration of departments
   - Faculty cross-over: Residents as teachers
     Teaching awards
     Faculty development
     Evaluations/quality

3.Should the academy structure formally include community affiliates? Other Community Institutions/Agencies?

☐ Yes ☐ No

If NO: How will community affiliates be included in UME curriculum, especially pre-clerkship. What are the advantages to separation from the Academy structure
If YES: How should this look? In the current affiliation agreements, there is no mention of Academies, nor the roles/responsibilities of the Academy Director in relation to community sites.

Some prompt ideas:

- Recruitment/retention/appointments/promotions
- Resources: people and other ie: equipment, space, library, IT, parking, call rooms, badges, lab coats etc.
- Quality Assurance/comparable learning experiences
- Balance of quality of care experience and travel as drivers of groupings
- Conflict resolution mechanism
- (Joint advancement) *may be covered by accountability working group*
- Responsibility/accountability for problem teacher, ethical issues, teacher quality

Appendix Two

Members of the Integration Working Group

Leslie Nickell, Chair
Rick Penciner
David Latter
Brian Hodges
Lynn Wilson
Maria Tassone
Tom McLaughlin
Pamela Coates

University of Toronto Faculty of Medicine

Taskforce on Medical Academies

Accountability Working Group Report

December 8, 2010

Taskforce on Medical Academies

Accountability Working Group Report

Contents

Appendices:

Report prepared by:

Patricia Houston, Vice President, Education, St. Michael's Hospital

Golda Milo-Manson, Vice President, Medicine and Academic Affairs, Holland Bloorview

Maureen Shandling, Senior Vice President, Medical, Mount Sinai Hospital

Taskforce on Medical Academies – Accountability Working Group Report

Introduction

The Accountability Working Group was charged with the responsibility to determine the current levels of financial support for the Academy system and to provide information as to the current accountability for resources including physician remuneration.

The following components supporting undergraduate medical education (UME) at the academy sites and the community affiliates were reviewed:

1. **Educational Resources and infrastructure:** at the academy and other teaching sites.

2. **Finances:** Flow of funding from the university, hospital and other sources to the academies and teaching sites.

3. **Physician Funding:** How faculty are supported with time and money to provide the teaching and administrative duties required for the success of the academies and other teaching sites. This will include a review of current structures and practices related to practice plans and AFP dollar allocations.

Methods

Data was collected through both survey tools and direct feedback from academy directors. A survey was designed and circulated to the VPs Education, fully and partially affiliated hospitals, to assess sources, flow, and accountability for funds. Data was also collected with regards to current infrastructure and resources to better understand the similarities and differences, supports and gaps in the successful implementation of an undergraduate medical program. ***Information was requested but has not yet been received from the university to supplement this data.***

A separate survey was sent to the Clinical Chairs to determine flow of funding to the clinical departments, departmental support for UME and current processes to support physician involvement in UME.

This document provides a summary of the findings, and recommendations to the Academy Task Force regarding this aspect of Academy accountability.

Educational Resources and Infrastructure

With regards to LCME accreditation standards concerns were raised by the student representatives that disparities exist between hospitals including those with academies. The perceived disparities however were not as pronounced in the survey responses. Several sites were identified as not meeting the necessary requirements for lockers, classrooms and study space for students. Most sites both community and fully affiliated met all standards for accreditation purposes.

Sources, Flow and Accountability for Funds

Information collected from hospital survey data indicates that there are four general categories of funding sources: University funding through the Office of the Vice Dean, Undergraduate Medical Education; Ministry of Health Funding through Medical Trainee Days; Treatment and Rehabilitation funds; and hospital sources (which include global budget and foundation funds). Many of these allocations, with the exception of University transfers, were initiated prior to the Academy system, and are historically based. As a result each hospital provides the resources for undergraduate education through different proportional combinations of resources.

Hospitals do not generally segregate funds according to undergraduate or postgraduate requirements, and maximize the efficient use of administrative and infrastructure overhead by combining provision of required resources to undergraduate and postgraduate trainees.

There is inconsistency in both external funding allocations, and in the specific accountability for use of MTD and T and R funds. Fully affiliated teaching hospitals were unable to distinguish line item funding related to MTD days, in distinction to community affiliates. There is significant concern regarding the collection of MTD data and its' multiple uses. T and R funding flows through hospitals to university departments or local practice plans without hospital accountability for distribution. All fully affiliated hospitals indicated they provide substantial support to educational administration and infrastructure from global budget expenditures.

Physician Funding

In 2002 the Hospital University Committee of the University of Toronto (HUEC) produced a report on the funding models in place at that time to support both undergraduate and postgraduate medical education. At that time it was determined that the cost to education one undergraduate medical student for one year was $45, 714. One category of expense identified was that to provide physicians with time or money for teaching in the UME program. In 2002 it was determined that with regards to physician support 20% was provided by the Dean's office and the Departmental Chairs, 16% by the fully affiliated academic hospitals and the majority (64%) was provided by the practice plans predominantly from use of clinical billings. There has not been a subsequent review with regards to financial support to physicians for UME in the fully affiliated and community affiliated hospitals.

Currently funding to physicians for UME comes from three sources: HOSPITALS included: the revenue given for educational activities from hospital budgets, the UNIVERSITY either directly from the Dean's office or from the Departmental offices, and from PRACTICE PLANS including the monies from the ALTERNATE FUNDING PLAN which support education.

HOSPITAL FUNDING

The fully affiliated hospitals receive a portion of their global budget based upon their function as an academic health sciences center (AHSC). Medical trainee days data are collected and submitted annually to the MOHLTC based upon the number of undergraduate, postgraduate and fellow training days at the AHSC. The actual dollar impact to each institution is unknown. For the community affiliated hospitals with greater than 10,000 MTD per annum $42.04 per learner day is added to the base budget. The hospitals do support individual physician stipends for UME based upon agreements between the hospital and the individual chiefs and practice plans. There is significant variation in support between both hospitals and departments. The hospitals have also historically received T and R funding which flows from the University. This flows to some of the practice plans to support the administrative costs associated with scholarly activity.

UNIVERSITY FUNDING

The Vice –Dean UME's office provides direct salary stipend support to a number of physicians in leadership roles in UME:

As well the Vice-Dean UME flows dollars to some of the Departmental Chairs offices to support physicians in roles such as Departmental University Undergraduate Coordinator, hospital site undergraduate education coordinators and individual preceptor roles. The Chairs in some departments distribute funds to the site Chiefs where it is used to support pre-clinical and clinical teaching of undergraduate students. There is significant variation in both the dollar amounts, methods of distribution and accountability for this funding. Some departments and individual site practice plans have developed point systems for allocation of funding to physicians for UME activities.

PRACTICE PLAN FUNDING

There are 96 physician practice plans at the University of Toronto. There is no consistency with regards to mechanisms to support UME.

As of 2007 funds have been flowing from individual AHSC AFP Governance Committees to practice plans to help support both clinical repair and academic activities. A significant portion of these funds are distributed based upon MTD data and research activity (grants).

Of the $25,663,703 AFP dollars flowing to the TAHSC hospitals for Teaching and Research two thirds of these dollars are meant to be allocated to support teaching – both UME and post-graduate. As well there are Specialty Review Dollars which also flow to five specialties to help support academic practice.

Each individual AFP governance is responsible for both the distribution to the practice plans and accountability for this distribution. Most governance committees distribute based upon an FTE count, some do have methodologies based upon physician academic productivity for allocation of some of the dollars (Baycrest, CAMH, WCH, TRI). The provincial AFP Accountability Working Group has not yet determined the most appropriate method of reporting of academic activities and this is currently only collected by those AFP governances where allocation is based upon academic productivity.

Negotiations are underway with the MOHLTC to provide stipends to physicians in community sites without an AFP. The amount will be $1000 per student per month to the preceptor physicians.

Summary and Recommendations

Based on this information, the working group concludes that there are significant resources allocated to undergraduate education as part of the entire package of educational support provided within hospitals. There are however inconsistencies and lack of transparency in elucidating the sources and distribution of this support. While there may be similar resource allocations provided to all sites, the lack of transparency raises a risk of perceived disparities in support between different academies and hospitals. The lack of detailed information also prevents clear accountability for alignment of these resources with the purposes intended. The working group recommends further work to increase transparent documentation of all sources of funding, policies to provide equity in at least the external funding of institutions hosting university students, and the establishment of consistent expectations for use of such resources.

A small number of disparities exist among hospitals in infrastructure/resources within each area: community affiliated, fully affiliated with an academy and fully affiliated hospitals without an academy. There is also a disconnect between the perceived disparities reported by medical student representatives and the survey results reported through the Vice-Presidents Education offices.

We therefore recommend a Steering Committee with student, hospital and university representation be formed to address these issues with an emphasis on processes to ensure that the student's experience is both excellent and equitable across all teaching sites.

Appendix I: Detailed Results VP Education Survey

12/14 hospitals completed surveys (4 Community affiliated hospitals (North York General, St Joes, Toronto East General, and Trillium), 4 fully affiliated "non academy' hospitals (CAMH, HSC, TRI, Holland Bloorview), and 4 fully affiliated "academy" hospitals (MSH, SMH, UHN, SHSC)). Surveys were sent to hospital VPs Education, requesting information regarding University, MTD, T and R, and any other known sources of academy funding. We requested information regarding sources and distribution of funding, but not specific amounts. We did not ask who completed the survey, and it is possible that different information was received dependent on whether finance offices, VP education offices, or both provided information.

Responses received suggested that academy funding in institutions may not be segregated from overall preclerkship, clerkship and postgraduate medical education funding. Finance offices were not in most cases able to clearly define the alignment between sources of educational funding and educational expenditures. Hospital global budgets and foundations provided significant support to educational programs and infrastructure.

The following summarizes the specific answers received:

Does your institution receive funding from the Office of the Vice Dean, Undergraduate Medial Education?

All fully affiliated Academy hospitals, 1 non academy full affiliate, and 2 Community affiliates confirmed receipt of funding. Funds are used for administrative support staff and tutor stipends.

Ministry of Health Funding through medical trainee data (MTD)

Medical trainee days data are collected and submitted annually to the MOHLTC based upon the number of undergraduate, postgraduate and fellow training days at the AHSC. All 4 community affiliates reported receipt of these funds, and stated it was used to support the indirect costs of providing a teaching environment, without clear tracking to specific educational costs. The full affiliates do not receive line item funding related to MTD reports. There is concern amongst community affiliates that new data collection standards will result in decreases in the amount of this funding.

Treatment and Rehabilitation Funding (T and R)

All fully affiliated academy hospitals and two non academy fully affiliated hospitals report receiving funds through this mechanism. Funds are used variable to support faculty base salaries, to support administrative overhead, or were reported not to be specifically tracked. Several institutions reported that T and R funds are flowed through the hospital to university departments, or local practice plans, without the hospital providing direct accountability for direction of these funds.

Other Sources of Funding

All fully affiliated academy hospitals and one full affiliate non academy hospital indicated global budget and or foundation (philanthropic) funds were used to support general overhead, administrative personnel, or educational infrastructure. One hospital estimated educational overhead in general (all levels of trainees) amounted to 1% of global budget expenditures. AFP funds are an additional source of funding to support physicians, as directed by practice plans. One community affiliate listed a small amount of funding from one medical department to support undergraduate education, and none of the other community affiliates reported any additional sources of funding for undergraduate medical education.

Accreditation Standards

Standard ER-6
Appropriate resources for clinical instruction of its medical students (sufficient breadth and quality of ambulatory and inpatient teaching, number of patients...)

- All 12 sites met this standard.

Standard ER-7
Each hospital or clinical facility that serves as a major instructional site must have appropriate instructional facilities

- Ten sites reported sufficient seminar and conference rooms for implementation of a medical program. The two sites without adequate instructional space included one academy site hospital and one community affiliated hospital. All sites had a large lecture hall to accommodate large group sessions. Two fully affiliated sites did not have sufficient individual study space for the medical students including one with an academy. All sites had a health sciences library on site with computers and internet access available. Sufficient call rooms were available at nine sites. Three fully affiliated sites did not meet the on-call requirement including one site with an academy. Secure lockers and space were available at eleven sites.

Standard ER-9
Signed affiliation agreements

- All sites met this standard

Standard ER-10
The Education program must remain under the control of the program's faculty at each site for instruction and assessment

- Only one community affiliated site did not meet this standard.

Standard ER-8
Required clerkship rotation at settings where resident physicians under faculty guidance participate in teaching medical students

- All twelve sites met this standard.

Standard MS-37
The medical program must ensure that medical students have adequate space, lounge areas and personal lockers

- Nine sites had a lounge area for medical students and seven of the nine shared the lounge with other professional groups.

Standard ER-4
General facilities to achieve educational goals

- Seven sites had adequate lab space for students to engage in clinical research. Eleven sites had adequate support staff to run an educational program. A community affiliated site did not. Two community affiliated sites did not have adequate office space for their teaching faculty.

- Other supports available for a teaching program included all sites having telephone access for students, human resource support for orientation and ID badges. Only one site did not have access to pagers.

- A student centre was available at four sites; two community affiliated and two fully affiliated hospitals with an academy.

Appendix II: Detailed Results Clinical Chairs Survey

Responses were obtained from twelve clinical chairs offices.

Does your office receive funding from the Office of the Vice-Dean UME or the Dean's office to support UME? How is the funding utilized and or distributed to hospital sites?

Nine clinical chairs offices do not receive funding directed to UME. Three departments do receive directed funds. These are used to support both administrative time in the chair's office and physician time for both pre-clerkship and clerkship teaching and administrative work.

Does your office of the hospital departmental offices support administrative personnel for UME. If so how many FTE's?

Every university departmental office reported administrative personnel for UME ranging form 0.5 to 3.0 FTE. All hospital departments have administrative personnel who support UME along with other educational and non-education related administrative tasks.

How do the hospital departmental practice plans provide funding to physicians to support their role in UME?

Two departments reported funds from practice plans being directed to support physician administrative involvement or teaching time. The other departments reported support of UME activities as aligned with academic job descriptions. Within departments across hospital practice plan sites there is no consistency re allocation of resource to UME administration or physician teaching time.

Do the practice plans have systems/processes to determine levels of support to physicians for UME?

Six departments reported use of either a points system or Academic Activity Review Committee to determine financial reward for UME.

Are AFP dollars used to support UME and is there an accountability process with regards to this distribution?

Four departments reported that AFP dollars are used to directly support UME with an accountability process in place to determine this allocation. The other eight departments do not have a process to link use of AFP dollars to UME.

Are you aware of other sources of funding to support physician involvement in UME?

One department had hospital funding to support a physician role in UME.

Student Educational Travel and the Academy System

A University of Toronto Medical Society Policy Statement

February 16, 2011

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Introduction and Background

Providing a complete and well-rounded medical education is a complex task for a medical school. In order to deliver a breadth of community and academic experiences, while simultaneously providing easy access for students to their administration, the University of Toronto Faculty of Medicine relies on the Academy system. The Academy system is meant to provide a smaller community of learners within a relatively large student body. It also means students are geographically assigned to certain hospitals and teaching sites during their clinical and small-group learning experiences. The Academy system thus creates unique strengths and weaknesses for the undergraduate MD program at U of T.

The Task Force on Medical Academies is currently tasked with a thorough evaluation of the state of the Academy system. The Medical Society has formed a working group to perform an independent analysis and write a formal Student Policy Statement that encapsulates student opinion on the Academy system. Over the past months, a student working group has interviewed key student and administrative stakeholders, and also administered a survey to the entire student body (the survey, as well as a more detailed description of the data collection and analysis, is included as Appendix 1). The final version of this policy statement will be approved by the Medical Society Executive Council on February 16, 2011.

The Academy System

As part of a broader renewal of the undergraduate medical education program, the Academy system was created in 1992. The Academies provide a "home" for students by creating smaller groups of learners within a relatively large class, and include the services of a dedicated Academy Director and administrative staff. Each of the three Academies –FitzGerald, Peters-Boyd, and Wightman-Berris– also includes a specific set of hospitals (a fourth Academy in Mississauga will be opening in September 2011). Academy-based teaching activities, such as PBL, DOCH, ASCM, and core clerkship rotations are all located at Academy hospitals or associated teaching centres.

Historically, the Academy system has been considered a unique strength of the undergraduate program in Toronto. In the Student Self-Study portion of the CACMS Accreditation of 2004, over 80% of students in all years either agreed or strongly agreed with the statement "I feel the Academies provide a valuable education structure". Students similarly found that the Academies provided a valuable social structure, adequate mentorship programs, good educational facilities, and sufficient patient exposure[1].

Since 2004, there have been many changes to the undergraduate curriculum that may have affected student opinions of the Academy system. Many Community Affiliated Hospitals have joined existing Academies. These sites provide opportunities for valuable clinical experiences, but may also dilute the ability of an Academy to act as a unitary "home". Many changes have also taken place in the structure and delivery of both preclerkship and clerkship medical education. All of these developments mandate a re-examination of student views on the Academy system.

[1] Student Accreditation Self-Study Task Force Report, 2004.

Student Educational Travel

Experience in a broad range of teaching environments is vital for a complete medical education. This includes learning in outpatient and inpatient settings, primary care offices and tertiary centres, specialist facilities, community hospitals and academic research-focused institutions. The University of Toronto is extremely fortunate to be able to provide its undergraduate medical students with access to the entire breadth of this spectrum. A large number of the teaching sites are located very near to the St. George campus of U of T; however, it is currently not possible to facilitate the entire undergraduate program within downtown sites while still providing a broad education.

As such, many teaching sites affiliated with our university are located away from the downtown core of Toronto. These community-based sites are an important part of our program, and often receive excellent evaluations from the students who learn at them. Travel to these sites is a necessary part of getting a quality education at U of T, and it is worth emphatically stating that The Medical Society strongly supports the inclusion of community experiences throughout all stages of the curriculum. That said, when students travel for their education, there are negative consequences that must be considered and mitigated. These include loss of sleep, loss of time for other activities, increased cost, decreased clinical time, and increased stress. For these reasons, longer travel should only occur when the added educational value of a more distant site has been carefully weighed against the negative effects on students.

Although student educational travel is a perennial issue at every medical school in Canada, the Academy system at U of T tends to entrench discrepancies between students with respect to their travel requirements. Students in a given Academy consistently go to Academy-based sites, and thus the organization of the Academies is inextricably enmeshed with student travel issues. A careful analysis of the cost and impact of student educational travel, including the impact of the Academy system, is a very important issue for students, and is attempted in this paper.

Findings and Position of The Medical Society

Findings from Interviews

The interviewing of administrative staff in the Faculty of Medicine yielded many important findings. Despite the Academies' stated intention of providing a consistent "home" for students, this is inconsistently being accomplished under the current scheduling of activities in both preclerkship and clerkship. In preclerkship, students often travel between different sites for different courses on the same day (such as ASCM and PBL) on days that are nominally "Academy" days. Moreover, students are often scheduled at sites that have limited educational resources or limited access to the Academy staff themselves. It is often unclear to students and to teachers what role the Academy plays in their education. All of these factors decrease the student experience of the Academy as a close-knit community of learners.

At the clerkship level, it is our finding that the division of scheduling between the central office and the clinical departments dilutes the effectiveness of the Academies. Most rotations are not facilitated by the Academy but rather by the department pertaining to a given clerkship block; this decreases the

sense of community within an Academy, and also weakens the ability of the Faculty to control travel inequities between students. Moreover, when students are on rotations unconnected to their Academy, it becomes unclear whether concerns about their experience should be raised to their Academy Director, Departmental Coordinator, or someone else. The lack of understanding and involvement in the Academy structure for many sites leave students vulnerable to their preceptors, and also diminishes the student experience as a whole.

Findings from Student Survey

The data from student surveys yielded many valuable findings concerning student opinions (for a review of the survey instrument and the survey design, see Appendix 1). Across Academies, there is broad support for the idea of the Academy system, in that a small group of learners strengthens education within a large medical program. However, there were many areas where student responses differed greatly between students in different Academies. One large and troubling discrepancy is in self-reported travel spending amongst clerks. Although students in the preclerkship years had little difference in travel spending, clerks in the Peters-Boyd Academy had an average monthly travel cost of $171, compared to $97 for FitzGerald students, and $79 for Wightman-Berris students. This data can be seen in Figure 1 below. Although the response level of the survey prevents us from drawing overly strong conclusions, such a discrepancy in the cost of education for students in different Academies seems problematic at face value. Directly extrapolating these numbers, a PB student may be spending almost $2000 more in total education costs than a WB student over their final two years. It is difficult, however, to ascertain the accuracy of this extrapolation. Many core rotations, and all electives, are scheduled without regard to Academy, and may have more even travel costs. Nevertheless, our program already claims the highest tuition for a 4-year MD program in Canada, and any "hidden" educational expenses that do exist only serve to make student finances less manageable. In concordance with self-reported travel costs, Peters-Boyd students are also more likely than students in the other Academies to disagree or strongly disagree with the statement "The amount of money I spend on transportation is reasonable for me".

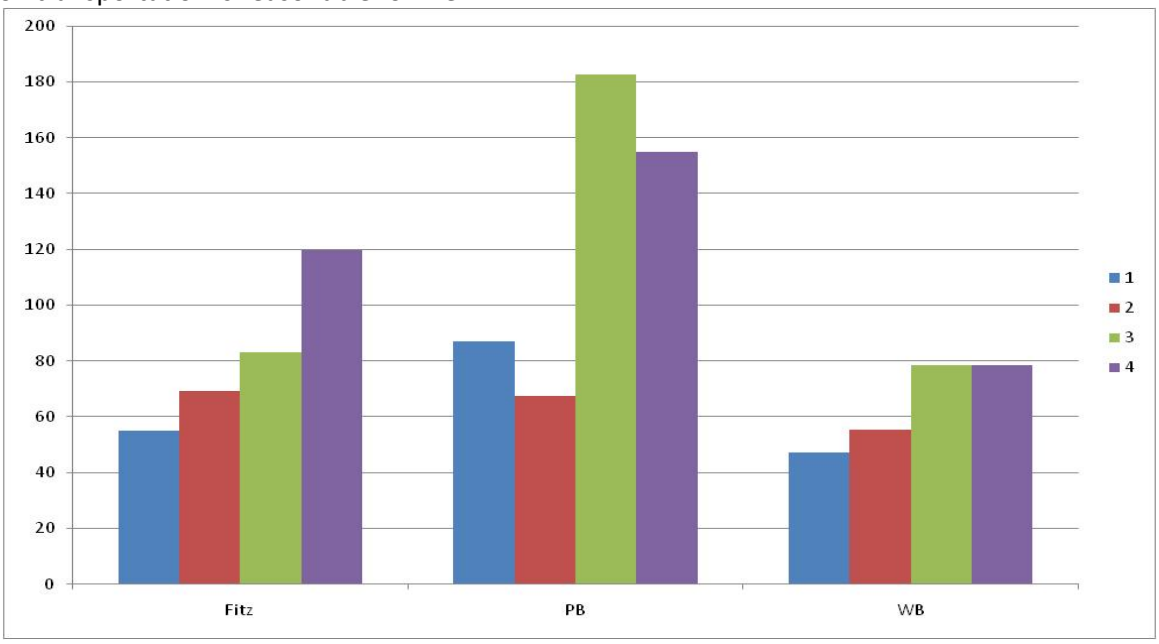

Figure 1: Self-reported monthly travel costs in dollars (excluding one-time purchases such as a car) for students in each year, for each Academy.

Similarly to the results for travel cost, students in Peters-Boyd were more likely to disagree or strongly disagree with the statement "The total amount of time I spend each week in transit is reasonable for me" (44.44% versus 18.73%), and with the statement "The organization of transportation and shuttles is convenient for me" (48.79% versus 17.6%). Preclerks in all Academies overwhelmingly agreed with the statements "Transportation would be less of a burden for me if all curriculum-related activities for each day were scheduled at a single location" (58.91% agreeing or strongly agreeing).

In terms of other Academy-related questions, one item that stood out was the difference between students' opinions of educational resources. Figure 2 below indicates the level to which students in each Academy agreed that the educational facilities within their Academy were "adequate" and "comparable to other Academies". It can be seen that generally students in Wightman-Berris are very pleased with their facilities, students in Peters-Boyd are generally displeased, and FitzGerald students fall in between.

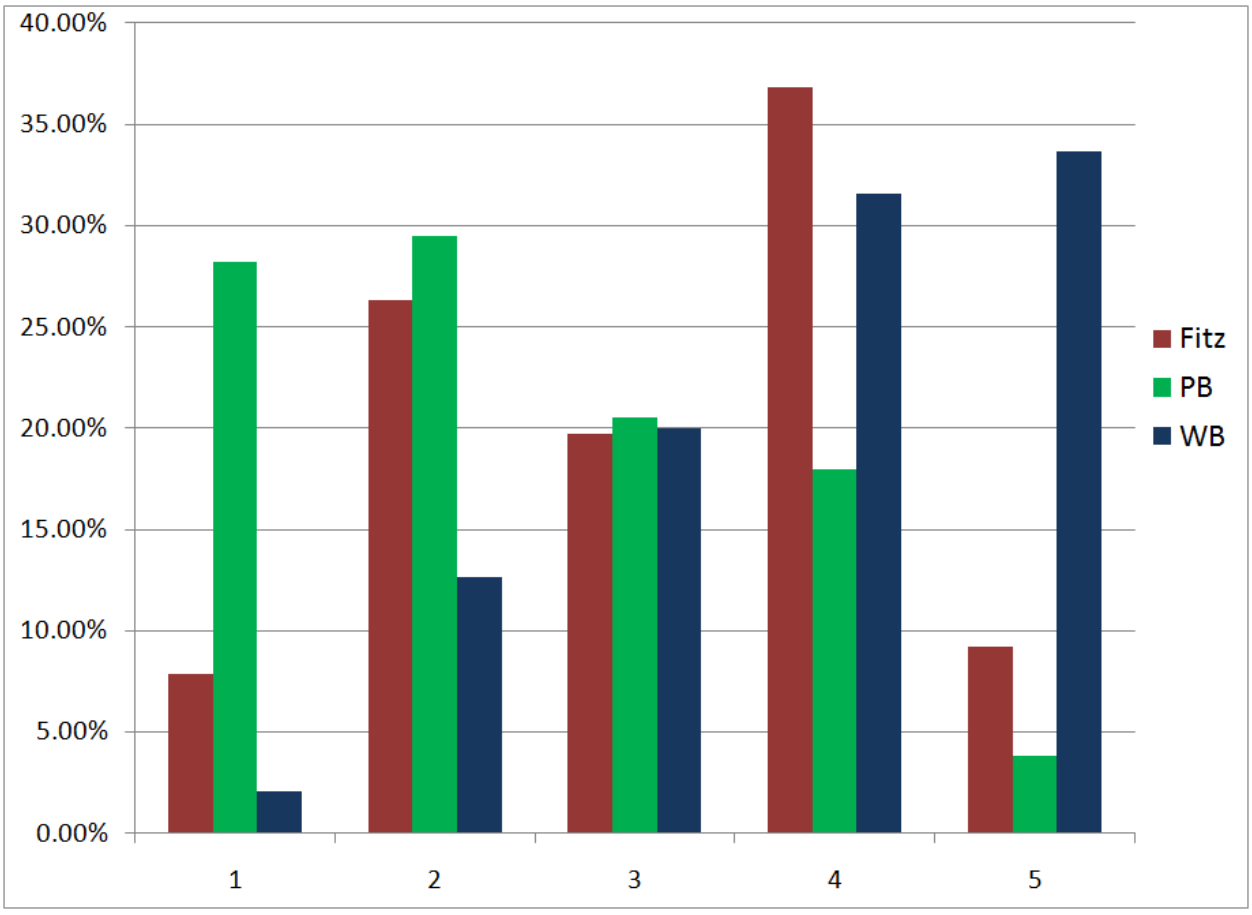

Figure 2: Student agreement with the phrase, "I find the educational facilities within my Academy to be adequate and comparable to those at other sites", with 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

The difference between students in different Academies in their responses to travel and other infrastructure questions is troubling. It is important to note, though, that there is substantial variation

within each Academy. Although students in Wightman-Berris are often perceived to travel very little, there are placements at Humber River Regional Hospital and Toronto East General Hospital. Conversely, students in Peters-Boyd are often placed downtown at Women's College Hospital. The important message is that solutions to travel issues should ensure that *individuals* have comparable travel and learning experiences. Little is gained if Academy-level changes occur that still leave a wide variation in the student experience.

Each Academy claims to offer a unique educational flavour to its students and, in fact, this is one of the positive aspects of the Academy system. For example, students in Peters-Boyd can learn surgery in the context of a truly world-class trauma program; FitzGerald students have access to an inner-city patient mix that puts the social determinants of health at the forefront; and Wightman-Berris students see the cutting-edge application of research to clinical care. These unique qualities, however, must be built upon a solid base that includes comparable minimum standards in terms of educational resources, cost of education, and overall student educational experience. In fact, such requirements are included in a large number of LCME/CACMS accreditation standards. It is the position of The Medical Society that if changes are not made to expediently rectify the concerns highlighted above, our program will be found to be substantially non-compliant with a number of standards when we are externally reviewed in the Spring of 2012.

Position and Recommendations of The Medical Society

In order to create a better student experience, minimize travel time and cost, and foster the community learning that characterizes the Academy system, it is the position of The Medical Society that certain aspects of the undergraduate medical education program be altered. Based on the findings presented earlier in this document, The Medical Society recommends the following:

1) The clerkship schedule should be organized to include greater equity of placements. Currently, seven clinical departments independently decide student placements, although some placements may be restricted to Academy-specific sites. The result of this is that there is wide variation in the experience of individual students, with some students experiencing a disproportionate amount of time at community sites, or alternatively at downtown sites. We see this set-up as a barrier to equalizing the burden of travel among clerkship students, and also negatively affecting education. Every student needs to have a mix of community, academic, specialist and generalist experiences. A system that for each student explicitly balances near and far placements, as well as academic and community sites, will go a long way towards achieving this equity. This balancing will probably require some amount of centralization of clerkship scheduling. This may be accomplished through the clerkship office, through the Academies themselves, or through significantly improved collaboration between the clinical departments. Once again, it is important to note that we are not advocating for decreased experiences in the community. Such placements are a necessary part of a broad education, and frequently receive excellent student evaluations. In fact, it is just as problematic if a student spends all his or her time in a quaternary-care hospital downtown, as it is for the same student to spend every placement at a distant community site.

2) Currently there are large discrepancies in how much students pay to get to their placements, especially at the clerkship level. Much of this inequity can be mitigated by implementing the other recommendations in this report. However, some inequity will probably remain. Where this occurs because students are consistently required to travel to placements where public transit is very

expensive or unavailable, subsidized travel should be provided. There are few enough sites affiliated with our program that it would be possible to evaluate the time and cost of traveling from downtown (where a majority of students live) to each site. After this analysis is done, travel to sites above a certain cost threshold should be subsidized. Another possible mitigating factor is for the Faculty of Medicine to work with the University of Toronto to purchase subsidized TTC passes for all students. Such a program would necessarily include the mandated purchase of a pass for all students, and is commonly done at universities across the country. This should only be pursued, however, if the Faculty is able to negotiate substantially reduced rates for passes (ie: students should not be mandated to buy TTC passes at their current rates).

3) Better coordination of schedules to decrease unnecessary travel
    a. Preclerkship: "Academy days" should be full days at one site. It does little towards bettering student experience if "Academy days" are spent transiting from one site within an Academy to another. A better organized day may involve ASCM in the morning followed by two sessions of PBL, or DOCH plus seminars. This will also better integrate community hospitals into the Academy to which they belong, as we believe a full complement of teaching (ie: not just ASCM) can and should be done at these sites.
    b. Clerkship: Seminars and portfolio activities should occur at the same teaching site as clinical duties wherever possible. Centralized activities should only occur with justification. Where possible, they should be equitably distributed, not solely occurring in a downtown site.
    c. Transit time should be taken into account in scheduling. In preclerkship, avoid any days in which transit between MSB and other sites occurs; if unavoidable, there must be provision for the farthest students to get to where they are going. This affects not just curricular activities, but also extracurricular events that occur in MSB.
    d. Shuttles should be made easier to use by students from all Academies. Improved shuttle service should allow students to make early morning rounds, and successfully transfer between a morning session downtown and an afternoon placement in the community (or vice-versa). In preclerkship, increased flexibility is needed with the school-provided transportation to distant sites (ex. Trillium Health Centre, Credit Valley Hospital, North York General Hospital). This includes allowing students to set pick-up locations other than MSB, and also allowing shuttles to travel between sites other than MSB (if, for example, students have to go from ASCM to PBL at two different sites, it makes little sense for a shuttle to take them to MSB in between). Of course, many of these shuttle issues can be solved by better coordinating students' schedules to include only one site in a given day.

4) Infrastructure/Educational Resources: An explicitly-defined minimal complement of educational resources (ex. Computers, standardized beds, lockers, call-rooms) should be defined by a working group composed of students and faculty. This set of resources should allow students in all four years to be able to effectively study, practice clinical skills, safely and conveniently store personal items, sleep and perform clinical duties during a night on call, and relax during breaks in duties. Once defined, such educational resources should be provided at each affiliated teaching site.

5) Students should be notified earlier of their placement in Academies and rotations:
    a. Notify students of the Academy they will be placed into with or soon after admission, including where placements will be held in preclerkship and estimates of travel time for various placements from downtown
    b. Clerkship rotation notification must be given at least 1 month in advance, so that transportation or accommodation can be arranged

6) A uniform hospital identification system should be created. This could be facilitated through either an agreement in which each affiliated hospital's ID will suffice at other hospitals, or a centralized "U of T Medicine" ID Badge. Such a system should allow use of all shuttles, make observerships and electives easier to do at all sites, and allow access to vaccinations, printing, computer time, and other educational resources when on-site but off-Academy.

7) Wellness/Safety Issues: Taxi vouchers should be offered free at all sites to all students when clinical duties end during the night.

8) We have a unique educational model and we must evaluate the unique aspects of that model. Course evaluations for all courses and placements in preclerkship and clerkship should include a student evaluation of travel time, cost, and convenience, including questions explicitly on the Academy system and site culture.

9) Cultural Issues: There is great variation in the feeling of belonging and social support between different sites and different Academies. Much of the dissatisfaction that some students feel is probably due to this perceived lack of support and collegiality at different sites. Whether it's clinical staff telling students they have no business on a particular ward, Academy administrative staff who are unresponsive to student concerns, or chatter on shuttles that students should give up their seats, all of these actions have a chilling effect on the student experience. Just like community sites don't want to be second class citizens (and shouldn't be treated as such), students don't want to feel like unwelcome visitors. Remedying these cultural issues will require greater involvement of all sites in the Academy to which they belong, and a greater awareness of student concerns amongst staff at all teaching sites. The Faculty of Medicine should market and explain the Academy system to all allied healthcare professionals at all teaching sites. A clear delineation of roles between Academy staff, Education Departments at hospitals, and clinical chairs should also occur.

Conclusions

Many of the recommendations outlined above will require substantial investment of both time and resources on the part of students and faculty. That said, it is now an opportune time to implement large-scale changes that may facilitate the overall goals of increasing community and quality of experience. For example, a wholesale investment in high-definition videoconferencing could go a long way towards decreasing the need for educational travel, and has been very successful in programs across the country. The opening of the new Mississauga Academy of Medicine also provides numerous examples of how to build an Academy from scratch; many of the current best practices at MAM can be easily transferred to other Academies. A final creative solution that is often utilized in other MD programs in Canada is the use of dedicated rural or community placements occurring during clerkship or between preclerkship and clerkship. In these placements, students are provided accommodation for weeks to months near to a teaching site that offers primary and secondary care. These placements provide not only a valuable community experience, but also decrease the subsequent need to have distant placements scattered throughout a clerkship schedule.

Overall, students at U of T want an education that facilitates the best possible learning experience and allows for the pursuit of career aspirations. In most ways, the undergraduate medical program is already successfully accomplishing this goal. Students in all Academies generally report high levels of

satisfaction with their program, and U of T is known the world over for graduating excellent physicians capable of pursuing a career in any field. However, the lack of critical, systemic problems does not mean that we should be inactive. Medicine and medical education are rapidly changing, and what now are minor issues may develop quickly into more serious ones. The Academy system is a model that has traditionally been successful in accomplishing the above goal, but it faces new challenges. Now is the time to return to first principles. Why is the Academy system organized like it is? Why do the networks of Academy hospitals exist in their current form? How can we best provide a broad education that maximizes student choice and minimizes student travel? The worst way to go forward at this point is simply to follow historical example. As a school that constantly strives to improve itself, the University of Toronto Faculty of Medicine must address the concerns raised in this paper in order to maximize overall student experience.

Appendix 1: Data Collection and Analysis

At the October Executive Council meeting, the Medical Society created a working group to explicitly examine the student perspective on both educational travel, and the Academy system in general. A group of 6 students performed background research in the literature on educational travel and stress, and performed interviews on many key administrative and student leaders. These leaders included the Presidents of Medical Societies across the country (to determine how other schools have tackled similar experiences), staff in the preclerkship and clerkship offices, and all three Academy directors (or administrative staff in their place). A survey of all students was then created and administered over the month of November 2010. Questions included where students are placed, the amount of time and money spent on traveling, and a series of questions on how students feel about different aspects of the Academy system (support, infrastructure, availability of academy staff, organization of schedules). The entirety of the survey is attached below.

Respondents to the survey included 277 preclerkship students (58% of preclerkship students) and 139 clerkship students (31% of clerkship students). Incorrectly filled out responses were not included in the analysis. Respondents were evenly distributed across Academies and years. The data was analyzed over the month of December using the program Microsoft Excel. Relevant statistics and charts are included in the body of the main document. The position paper was approved for first reading on January 12, 2011 and, after input from the student body was elicited, a final draft was approved on February 16, 2011.

2010 Preclerkship Transportation & Academy Survey

Year of Study ☐ 1st ☐ 2nd	Postal code during school year: _____	Academy ☐ Fitz ☐ PB ☐ WB

Please complete for all sites that you attend(ed) for mandatory aspects of the curriculum, excluding MSB. You may evaluate sites for 1st or 2nd year (circle 1 or 2) and DOCH placements (circle 'other' & please specify)

	Site Name *(hospital name or FMLE/DOCH nearest major intersection)*	**Reason for Visiting Site** *Choose ALL that apply*	**Main Mode of Transit** *Choose ALL that apply*	**Average TOTAL Round-Trip Time** *Choose ONE*
1		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ Taxi (provided) ☐ TTC ☐ Taxi (out of pocket) ☐ Bike ☐ Other ☐ Car _____ ☐ Shuttle	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h

2		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h
3		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h
4		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h
5		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h
6		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h
7		☐ ASCM 1 2 ☐ DOCH 1 2 other ☐ FMLE ☐ PBL 1 2 ☐ Seminars ☐ Other _____	☐ Walk ☐ TTC ☐ Bike ☐ Car ☐ Shuttle	☐ Taxi (provided) ☐ Taxi (out of pocket) ☐ Other _____	☐ 0 – 30 min ☐ 30 min – 1 h ☐ 1 – 1.5 h ☐ 1.5 – 2 h ☐ 2 h – 2.5h ☐ more than 2.5h

7. What is an ESTIMATE of your MONTHLY cost for transportation in dollars? (Include costs like the TTC, taxis, fuel and other car costs, but don't include one-time costs like the price of a car or bicycle):
_____

8. Please indicate the extent to which you agree with the following statements:		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a.	The total amount of time I spend in transit each week is reasonable for me.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
b.	The amount of money I spend on transportation is reasonable for me.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
c.	The organization and timing of transportation (ex. Shuttles/TTC schedules) is convenient for me.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
d.	Transportation to placements is/was a source of stress or frustration for me.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
e.	Transportation to placements has/had a negative impact on my health and well-being, including but not limited to: loss of sleep, meal organization, studying, attending meetings etc.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
f.	Transportation would be less of a burden for me if curriculum-related activities for each day were scheduled at a single location.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
g.	I feel that my transportation situation puts me at a disadvantage compared to other students in my academy or in other academies.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
h.	The academy system adds value to my medical school experience.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
i.	I feel comfortable approaching my academy director or staff regarding educational or professional issues.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
j.	I feel that I have easy, convenient and equitable access to spaces where I can practice clinical skills.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
k.	I find the educational facilities (ASCM rooms, study spaces) within my academy to be adequate and comparable to those at other sites.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

9. Do you have any suggestions for improving transportation to ASCM/DOCH/PBL/seminar/FMLE sites?

The clerkship survey was hosted using surveymonkey.com, and did not use a paper format. Relevant questions were altered (such as year of study, the provided examples for educational resources in question 8k, and the wording of question 9). Due to security concerns for an electronically-hosted data set, clerks were not asked to provide their postal code. Also, questions 1-6, 8f and 8j were removed from the clerkship version of the survey.

Future of Medical Education MD Project[1]

Recommendations

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

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

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

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

Recommendation V: Address the Hidden Curriculum
The hidden curriculum is a "set of influences that function at the level of organizational structure and culture," affecting the nature of learning, professional interactions, and clinical practice. Faculties of Medicine must therefore ensure that the hidden curriculum is regularly identified and addressed by students, educators, and faculty throughout all stages of learning.

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

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

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

[1] http://www.afmc.ca/future-of-medical-education-in-canada/medical-doctor-project/pdf/collective_vision.pdf

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

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

ENABLING RECOMMENDATIONS

Enabling Recommendation A: Realign Accreditation Standards
Recognizing that accreditation is a powerful lever, Canadian medical leaders must review and realign existing standards of the Committee on Accreditation of Canadian Medical Schools and the Liaison Committee on Medical Education and develop new ones, as necessary, to respond to the recommendations in this report. This may involve the alignment of undergraduate and postgraduate accreditation standards.

Enabling Recommendation B: Build Capacity for Change
Each Faculty of Medicine should carry out a review of its organizational systems, processes, and structures to determine and build capacity, where required, to support a constructive response to these recommendations.

Enabling Recommendation C: Increase National Collaboration
Canadian Faculties of Medicine are continually innovating and have much to offer each other. Increased collaboration among schools is needed, including the sharing of teaching and learning resources, evaluation frameworks, tools for common curriculum development, innovations, and information technologies.

Enabling Recommendation D: Improve the Use of Technology
Based on rapid and evolving technological changes related to the way people communicate and learn, there must be increased understanding and use of technology on the part of both faculty and learners at all MD education sites.

Enabling Recommendation E: Enhance Faculty Development
Recognizing that teaching, research, and leadership are core roles for physicians, priority must be given to faculty development, support, and recognition in order to enable teachers and learners to respond effectively to the recommendations in this report.