Health Policy, Management & Evaluation
UNIVERSITY OF TORONTO

Self-Study for External Review of Health Policy, Management and Evaluation

November 14, 2011

http://www.hpme.utoronto.ca/

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1. INTRODUCTION AND CONTEXT

A. DEPARTMENT/INSTITUTE EVOLUTION

The Department of Health Policy, Management and Evaluation at the University of Toronto traces its history back to the former School of Hygiene. With the support of the W. K. Kellogg Foundation, a Diploma in Hospital Administration was developed and first offered in 1947 through a newly created Department of Hospital Administration. In 1967, the departments of Hospital Administration and Public Health Administration were combined to form the Department of Health Administration in the School of Hygiene. In 1975, the School of Hygiene was merged into the Faculty of Medicine (FOM), in which a new Division of Community Health was formed. Health Administration was one of three departments in that division, along with Behavioral Science and Preventive Medicine and Biostatistics. The Graduate Department of Community Health administered the academic programs for the three departments.

In 1997, the Departments of Behavioral Science and Preventive Medicine and Biostatistics amalgamated to become the Department of Public Health Sciences. Their graduate programs continued to be administered by the Graduate Department of Community Health, while the Graduate Department of Health Administration was established to administer the graduate programs of the Department of Health Administration. In 1999, the Program in Clinical Epidemiology and Health Care Research, a faculty-wide initiative with a base in the Division of Community Health, joined the Graduate Department of Health Administration. In 2001, the Department changed its name to the Department of Health Policy, Management and Evaluation (HPME) to better reflect its areas of expertise and this was reflected in the re-naming of the Graduate Program.

In 2010, the Department of HPME began the process of transitioning to an Extra-Departmental Unit (EDU-A). At the University of Toronto, an EDU-A is characterized as "a well established and defined area of scholarship" which has "attained a critical mass of interdisciplinary scholarship". It was the sense of HPME stakeholders that an EDU-A more clearly captured the strengths and distinctive collaborations of the Department of HPME. On October 27th, the change to an Institute status was approved by the UofT's Governing Council. The process of implementing this change is currently underway. The EDU-A proposal is available in Appendix 1.II.1.

The self-study is divided into twelve sections. A brief description of each section is provided below.

FACULTY (SECTION 2)

HPME currently has 18 core faculty members, including 16 tenure/tenure stream faculty members and 2 teaching stream faculty members. In addition, there are 199 faculty members who have either a status only or cross appointment in HPME, many with clinical apppointments in the Faculty of Medicine. Another 73 adjunct faculty contribute to the department's educational programs. A list of all faculty members is provided in Appendix 2.I.

DEGREE & OTHER EDUCATIONAL PROGRAMS (SECTIONS 3 & 4)

HPME offers both professional and research degrees, all with a focus on developing Canada's future health leaders and researchers. In addition, the Department is involved with nine Collaborative Programs and a series of continuing education offerings. The Department is also responsible for the Manager Theme in the undergraduate medical education program.

- **MHSc Health Administration** – The MHSc in Health Administration combines expertise in health policy, business and management in a comprehensive program for health managers and professionals. The multidisciplinary curriculum reflects the Department's strength in evidence-informed health management and policy and is further enriched by practicum placements

under the mentorship of top health care executives. A MHSc Health Administration/MSW combined degree program and a MN/MHSc Health Administration combined degree program are also available.

- **Master of Health Informatics** – A new program, the Masters in Health Informatics (MHI) responds to the needs of the emerging discipline of health informatics. The MHI is designed to train health informaticians capable of leading organizational and health system change. The program combines expertise in health systems with applied knowledge in information and communication technologies.

- **Master of Management of Innovation** – The Masters of Management of Innovation brings together economics, management and technology transfer in a unique interdisciplinary professional program that prepares individuals for management careers in technology and innovation-focused organizations in the health care, research, government and industrial sectors. (Please Note: The MMI program is not included in this cyclical review.)

- **MSc/PhD Program** – The Masters and Doctoral program provides a comprehensive, multi-disciplinary curriculum with an aim of preparing students for independent research and academic careers. There are two fields within this program: Health Services Research and Clinical Epidemiology and Health Care Research.

- **Joint and Collaborative Programs** – Joint and collaborative programs with other departments, faculties and universities expand and enhance the program options available to HPME students. In one joint program, HPME collaborates with universities and health technology assessment agencies in Canada and Europe to offer an international Master of Science degree in Health Technology Assessment and Management.

- **Executive and Leadership Training** – HPME is committed to providing ongoing education for health care leaders. The Department's Physician Leadership Program provides physicians with an intensive program to develop leadership and management skills. The Clinical Epidemiology Institute provides a week-long introduction to critical appraisal skills and evidence-based practice and policy for clinicians, decision-makers and industry. A new initiative, the Health Technology Institute, provides learners with the skills and tools necessary for health technology assessments.

- **Undergraduate Medical Education -** The undergraduate medical education program at the UofT trains students in seven competencies. One of these competencies is Manager and the curriculum works across the four years of medical education to ensure a continuity of experience. HPME takes the lead in developing and delivering this theme.

RESEARCH (SECTION 5)

HPME's research goal is reflected in its mission to "provide leadership in understanding and improving the financing, organization, delivery and outcomes of health services and clinical intervention". The Department's research covers three domains of health care – clinical, organizational and policy – and is organized around six strategic foci outlined below. The Department received more than $8.356 million in research funding in 2009-2010, which represents almost a tripling of its budget from 2000.

ORGANIZATION & FINANCIAL STRUCTURE (SECTION 6)

The Chair of HPME is supported by an Executive committee composed of the Program Directors and it meets on a monthly basis. At the Graduate Department level, a Curriculum Committee chaired by the Graduate Coordinator and supported by the staff in the Graduate office reviews and approves changes to the curriculum, new courses and establishes educational policies and procedures based on policies

established by the School of Graduate Studies. Its membership includes the Program Directors, faculty and students. Each program has a Program Director and advisory committee. The program director is responsible for developing program specific requirements, selecting students for admission, monitoring and facilitating student progress and student counseling. Selected other standing committees include Appeals, Space and Awards. Faculty meetings are held on a monthly basis. The Chair meets on a yearly basis with students and regularly with the Society of Graduates Executive Committee.

The Faculty of Medicine (FOM) will be the lead faculty for the new Institute and its budget will continue to be subject to the budgetary procedures of the faculty. Presently, the Chair of the Department reports to the Dean of the FOM and is a member of the All Chairs Committee of the FOM. All curriculum changes are approved by the Faculty of Medicine's Faculty Council before going through the different levels of university governance. The FOM provides administrative support in the areas of human resources, finance and development.

RESOURCES, INFRASTRUCTURE & ACADEMIC SERVICES (SECTIONS 7 & 8)

HPME is located on the 4th Floor of 155 College Street, in newly renovated space. The building includes a dedicated classroom, a large lecture theater and student space. As part of the University of Toronto, students have access to a wide range of services and co-curricular educational opportunities that complement the formal curriculum. Faculty and students have access to the resources of the University of Toronto libraries.

INTERNAL AND EXTERNAL RELATIONSHIPS (SECTION 9)

There is a long history of collaboration and partnership between HPME and other academic units both at the UofT and nationally and internationally. In addition, the Department has strong ties with research agencies and hospital based research institutes. The strength and depth of these ties were one of the prime motivating factors for the development of the EDU-A.

FUTURE DIRECTIONS (SECTION 10)

With the approval of HPME as an EDU-A, and the recruitment of a new Director, there will be an opportunity to engage internal and external stakeholders more formally in a new strategic planning process. HPME has had an excellent record of attracting peer review grants and its educational programs are highly rated. While there are recognized challenges related to resources, HPME would appear to be in an excellent position to build on its strengths.

FACULTY AND STUDENT STATEMENTS (SECTIONS 11 and 12)

The Report of Faculty has been coordinated by Professor Peter Coyte. The Report of Students has been coordinated by:

- Renata Axler (PhD Candidate, Health Services Research, HPME Graduate Students Union (GSU) President);
- Carolyn Steele Gray (PhD Candidate, Health Services Research, HPME GSU Vice-President);
- HPME GSU Executive.

B. PREVIOUS REVIEW: FINDINGS PLUS RESPONSE, MARCH 2007

In March 2007, the Department of Health Policy, Management and Evaluation (HPME) underwent an external review linked to the renewal of the Chair. The primary intention of the review was to address focused questions related to the range of Departmental programs and activities and to address the size, scope, quality, priorities and future of these programs.

Key findings from the external review addressed issues related to individual education programs, the research portfolio and the department as a whole. The overall conclusion of the Report was that "In the complex environment of the University of Toronto, the Department of Health Policy, Management and Evaluation may be seen as a "gem in the crown"". The Report offered several suggestions for consideration and feedback, but added that "none of these suggestions are seen as being of a serious or critical nature, but, rather, are offered as a basis to stimulate dialogue, further reflection and selective actions". The findings identified in the Review, plus the Department's responses, are itemized below.

Graduate Education Programs

- Concern was expressed that the UofT policy of a guaranteed income for entering graduate students in the research stream had the potential to increase the financial risk to researchers. To date, the Department has not found this to be an issue. Faculty have been able to support students and students have been successful in receiving Fellowships. All domestic students deemed eligible for admission, have been admitted. One major issue the Department (and University) continues to face is the lack of provincial government support for international students.

- The Report recommended that the research degrees be renamed to better reflect their content. As a result of this suggestion, the research based programs were clearly sub-divided into Health Services Research (HSR) and Clinical Epidemiology and Health Care Research (CEHCR). Within HSR, an examination of each concentration was undertaken to address areas of overlap. Required courses across concentrations were re-instituted to ensure that all students graduate with a strong base in either HSR or CEHCR.

- The Report mentioned a common concern across student groups related to accessibility to courses. This remains a concern within the University but, within HPME, a priority system has been instituted to facilitate access to courses in HSR and CEHCR. The program directors have also worked to develop ties in other programs to facilitate course access.

- The Report called for greater interaction between students and faculty. A research seminar with a different theme each year was re-instituted in response to this suggestion.

Branding of HPME

- The reviewers were concerned that HPME had not sufficiently branded its expertise. In response to this, the Department adopted and adapted their recommended tag line "preparing the nation's leaders in evidence-informed health policy and management" which can now be found on the Department's website. Marketing materials were developed in conjunction with the strategic planning process with the objective of increasing HPME's visibility within the University, nationally and internationally.

- In relation to HPME's role vis-à-vis the School of Public Health, the Report noted that HPME must be a central contributor but need not be assimilated into the School. They felt that HPME's contribution could be made within the Faculty of Medicine. Since that time, HPME has developed a proposal for an EDU-A which formalizes its relationship with the School of Public Health.

Articulation of Long Term Plan

- The external reviewers offered a number of observations regarding the challenges HPME would face over the next five years. Many of these challenges were seen as tied to managing the

resource base, including faculty renewal, monitoring and nurturing stakeholder relationships and differentiating educational programs in the marketplace. They emphasized that once "on top" it was critical not to be complacent. In response to this, the Department has increased its resource base through the launch of two new programs (Master of Health Informatics and Master of Management of Innovation) and increased enrolment in its other programs taking into account quality and capacity issues. To increase revenues through Executive Education, we have continued to offer the Physician Leader Program and launched the Clinical Epidemiology and Health Technology Institutes. To address our community's ongoing learning needs we have been exploring opportunities for advanced graduate training in quality and patient safety, as well as a professional doctorate degree in health leadership.

C. ACADEMIC PLANNING

Department Vision, Mission and Values

HPME subscribes to U of T's and FOM's missions and core values. In this context, our vision, mission, and values are the following.

Vision:

- Leadership in innovative thinking in health policy, management and evaluation.

Mission:

- Providing leadership in understanding and improving the financing, organization, delivery and outcomes of health services and clinical intervention.

Values:

- Commitment to innovation and excellence
- Lifelong learning and critical inquiry
- Responsiveness to our students and to the field
- Collaboration and partnership
- Accountability and transparency within our academic communities and with the public.

Strategic Planning

In 2004, following a planning process, six strategic priorities for HPME's development were identified. Following the Chair's renewal in 2006, a further strategic planning process (completed in 2007) was undertaken which built on priorities previously identified, key accomplishments described below and took into account the external reviewers' recommendations described above and the changing university and health care environment. The full plan including a description of the context within which HPME is located can be found on the HPME website at www.hpme.utoronto.ca

Key accomplishments included in the strategic planning process included:

- MHSc accreditation of eight years was granted in Fall 2006,
- Ontario Council Graduate Studies Review was completed in Spring 2007, reaffirming the strengths of the graduate programs offered,
- Three new faculty members were recruited: Tony Culyer to the Ontario Research Chair, Health Systems and Design; Aviv Shachak to Health Informatics; and Fiona Miller to Health Policy,
- The Clinical Epidemiology Institute was launched in 2007,
- A seminar series for students was implemented, with a knowledge transfer (KT) focus,

- The Toronto Health Economic and Technology Assessment (THETA) Collaborative was funded by the Ministry of Health and Long term Care in 2007,
- Two new programs – Master of Management of Innovation (MMI) and Master of Health Informatics (MHI), a collaboration with the Faculty of Information – were launched,
- Arrangements with nine collaborative graduate programs were confirmed. Collaborative programs emerge from cooperation between two or more graduate units and provide students with a broader base from which to explore a novel trans-disciplinary area or special development in a particular discipline, and
- HPME research grew, with funding doubling from 2000 to 2007, from $2.7 million in 2000 to a total of $6.3 million in 2006-07 and $5.5 million in 2007-08. Interdisciplinary initiatives and collaborations resulted in three CIHR team grants and two Network grants.

Six strategic directions were identified during the strategic planning process based on the following criteria: they built on areas of strength and critical mass, with potential to be world class; they strengthened emerging capacity within an area; they brought new scholarship to an area; they addressed needs or new and emerging areas in the health system; they had the potential to improve health system delivery or outcomes; they were able to leverage unique opportunities, including priorities of funding agencies; they capitalized on partnerships, existing infrastructure or investments; and they were responsive to environmental uncertainties and change.

Strategic Directions

1. Leverage and enhance strategic foci that advance and promote HPME

i. Clinical Evaluation and Effectiveness and Health Care Research

Over 140 HPME faculty are clinician scientists who are internationally recognized leaders in research that establishes evidence-based clinical practice, evaluates health care interventions in real-world settings, and improves decision making at individual and policy levels. Current research interests include observational data analysis, clinical trials, clinical decision making, clinical measurement, applied quantitative methods, and clinical practice guideline development.

ii. Health Policy and System Performance

The health policy and system performance focus seeks to build capacity in policy analysis among researchers with a health service orientation and related methodological and conceptual expertise. The concentration draws on a range of disciplines, including political science, health economics, sociology of health and illness, science and technology studies and health care ethics, to consider the design and governance of health care systems locally, nationally and globally.

iii. Health Economics and Health Technology Assessment

The University of Toronto and HPME in particular, are home to an unparalleled number of researchers in decision sciences, health economics and health technology assessment in Canada. The aim is to be an internationally preeminent research and educational centre that attracts the best students and faculty and is the "go to" place for decision makers seeking academic input on a broad range of health economics and technology assessment.

iv. Quality and Patient Safety

HPME has a strong and growing cohort of faculty members with research and teaching interests in quality of care and patient safety. There is also growing interest in patient safety in a number of other departments within the Faculty of Medicine (Medicine, Paediatrics, Anaesthesia, and Surgery) and other faculties, including Nursing, Engineering

and Pharmacy. The new Centre for Patient Safety located at the University of Toronto, Hospital for Sick Children and Sunnybrook Health Science Centre has raised the profile of this area significantly.

v. *E-Health and Health Informatics*
E-Health and health informatics are becoming more important in the field, and are now gaining increasing support for funding and research, and for implementation in the health care field. This concentration can be seen as a support and enabler for quality of care, patient safety, system performance, and knowledge translation and exchange. HPME has a growing cohort of faculty with research and teaching interests in this area who are also involved in the Master's in Health Informatics.

vi. *Leadership, Management and Knowledge Translation*
The leadership, organization and knowledge translation and exchange concentration draws on the disciplines of organization and management science, sociology and organizational psychology. The theories and methods from these disciplines are used by faculty and students to examine meso- and macro-level organization issues, system level structure and performance and the uptake and application of research evidence in practice and decision making at all levels of the health care system.

2. Advance integration, collaboration and strategic partnerships

The key initiatives include identifying several health care system strategic priorities and align collaborations and strategic partnerships within the system priorities; actively expand collaborations with the School of Public Policy and Governance (SPPG) and the Dalla Lana School of Public Health (DLSPH); strengthen collaborations with other universities nationally and internationally; and leverage existing collaborations and partnerships to advance strategic foci described in the first part of Strategic Directions.

3. Recruit the best students and meet changing learner needs

The major foci of this strategy is to promote HPME's programs to targeted pools of students; refine programs and pedagogy to meet changing learner needs; and continue to grow and explore opportunities for continuing education and professional development programs.

4. Develop human resources and nurture leadership capacity

This strategy requires that HPME extend its core for faculty engagement and contributions, strengthen leadership development and formally initiate succession planning.

5. Generate, test and apply benchmarks for excellence

The major activities include the establishment of a task force to develop an HPME framework for benchmarks and performance measures; develop short- and long-term outcome measures for the six strategic directions and for the six strategic foci.

6. Sustain resources and pursue opportunities to increase funding base

To sustain resources it will be important to optimize partnership opportunities for funding supports and new initiatives, assess present marketing efforts, review their effectiveness and develop new strategies based on results and; strengthen fundraising, leveraging the FOM's advancement capabilities.

During the strategic planning process, it was acknowledged that these directions would be addressed within a challenging resource environment. The resource challenges included the following:

- A 16 per cent decrease to the base budget from 2007 to 2012, which would necessitate identifying alternate sources of revenue,
- The need to fund all research stream students, which meant that faculty had to be encouraged to include funds designated for MSc/PhD trainees in their grants, and
- A large minority of HPME faculty would be eligible for retirement (should faculty decide to retire at age 65) between 2012 and 2015, which highlighted the need for succession planning.

D. STUDY PROCESS

Preparation of the external review report was coordinated by the Curriculum Committee which is chaired by the Graduate Coordinator. Each Program Director completed their section and the Chair wrote those sections pertaining to the overall departmental strategy and the research program.

Weekly meetings were held between the Business Manager, Departmental Chair and Graduate Coordinator to monitor progress. One faculty member led the development of the faculty report with input from the total faculty complement and a student led group, including members of the Graduate Student Union, developed the Student report.

The Draft report was reviewed by the Curriculum Committee as well as selected faculty, student and community stakeholders for clarity and comprehensiveness. The Draft report was also reviewed by the FOM prior to being finalized.

E. REPORT OF THE CHAIR – LOUISE LEMIEUX CHARLES

In my second term I felt it was important, given the increased competition within the marketplace for the best students, to differentiate HPME`s educational programs as well as its areas of expertise in research. This strategy has been essential to the recruitment of the best students and to our success in obtaining both peer reviewed funding as well as contract research. Underpinning our activities has been the challenge of ensuring a viable resource base. The strategies used to accomplish these goals relied on collaborations and partnerships which have allowed us to leverage our own strengths.

Section C describes the strategic planning process we undertook. By July 2012 we will have accomplished the majority of our goals. New initiatives have included the launch of the MHI program, a partnership with the Faculty of Information. We are in the process of re-examining our doctoral program in this area. Health Economics and Health Technology Assessment are now a strategic focus. The strategies related to patient safety will come to fruition in 2012 as we engage in the planning for a Master's level degree.

The strategy of "advancement of integration, collaboration and strategic partnerships" required concerted effort on my part. The key initiatives included the spearheading of the ICES @ UofT initiative and the development of the proposal to transform the Department of HPME into an Institute (EDU-A). Both activities required an enormous amount of interaction with key constituents and stakeholders. In the ICES @ UofT initiative it was essential to find partners who were willing to invest money ($210,000 over three years) in the vision of an expanded ICES which would benefit both researchers and students as well as expand the research areas of study. The development of the MOU required that the University, ICES and the partners' interests would be addressed. It was a very long process which has resulted in a set of principles which I believe will facilitate our work together. I'm hopeful that the unit will be opened in January 2012.

In our previous external review, though the reviewers did not support a merger with the Dalla Lana School of Public Health (DLSPH), they recommended a closer working relationship. This process involved a re-examination of our position within the Faculty of Medicine and our relationship to the

Dalla Lana School of Public Health. We examined models which exist in other parts of Canada as well as the US and the UK and concluded that we needed to develop our own solution given our history. A working group chaired by the Graduate Coordinator reviewed the information. It was determined that transforming HPME into an Extra-Departmental Unit A which is characterized at the University as a "well-established and defined area of scholarship" that has attained a "critical mass of interdisciplinary scholarship at the University which allows for the unit to engage in the appointment of teaching staff, admit students to a program of study, and engage in interdisciplinary research" was the most appropriate avenue. It was seen as an opportunity to develop and formalize the collaborations and partnerships HPME currently has with other units and with the larger health and community care sectors thus creating an academic culture and organizational structure that is inherently multi and trans-disciplinary. We would also benefit from the higher profile of an Institute — a significant factor in increasing visibility of our research and programs. Increased visibility brings many advantages, including the ability to more effectively fundraise for endowed chair, an important means of recruiting and retaining top-rated faculty members. Becoming an Institute would also allow us to build on that success while ensuring stability and sustainability, two critical issues for all of academia in the current economic climate. At the governance level, the implication is that HPME will transition from a Department of the Faculty of Medicine to an Institute within the University of Toronto, with the Faculty of Medicine as its lead faculty. Operationally, HPME will continue to report to the Dean of the Faculty of Medicine. Although the Faculty of Medicine will be the lead faculty, the Director will also report to the DLSPH as a means of formalizing its long history of collaboration in the Faculty of Medicine's Community Health Sector. As the Institute and DLSPH continue to evolve, it is anticipated that new synergies will evolve. The proposal which is in Appendix 1.II.I was approved at Governing Council on October 27, 2011.

This process was interesting and challenging and required that faculty, students and alumni work collaboratively to ensure that the model we eventually chose reflected our interdisciplinarity, protected our graduate programs and resources, and allowed for increased collaboration with the DLSPH while still maintaining our affiliation with the FOM. Personally I felt that it was critical that HPME's future be clarified prior to the recruitment of a new leader.

As I look to the future, I'm aware that many of our alumni, especially those who graduated from our professional Master's programs are seeking opportunities to pursue additional education. To that end we have been exploring different educational models and have joined an international consortium (nine members) led by the University of North Carolina (UNC). UNC offers a doctoral degree in Health Leadership. I think our focus should be on health leadership in the global domain taking into account country characteristics. This focus allows for collaboration with the DLSPH whose students are also interested in becoming future leaders. The focus on leadership supports HPME's mission and will need further exploration.

One of the major strengths of HPME over its 60 year history has been its professional program in health management. Many of today's chief executives have been graduates of the program. The faculty who teach in the program are not only well connected to the community but their research programs are seen as relevant to the challenges encountered in the field. Many of these faculty members will be retiring over the next five years and it will be critical that a plan for succession be developed so that the quality of the program is protected. In addition we have been fortunate that oversight of our educational programs has been carried out by a cadre of dedicated Program Directors some of whom will be transitioning out of their roles. Ongoing leadership of these programs should be a top priority as it is tied to ensuring that we are in a position to recruit the best students.

When I wrote my report after my first term I was very concerned with finding ways to grow our resource base. Our resource base has grown through the graduate expansion fund; however, we have not been successful in our fundraising efforts. We have budgeted monies to work with the Development Office to secure the time of a senior development officer. I'm hopeful that, with expert advice, we will be in a better position to develop compelling stories about our successes.

I believe the following elements have contributed to HPME`s success over the past four years. These include:

- Differentiating HPME`s mission and goals in the marketplace from other similar programs/departments;
- Interdisciplinarity of faculty which represent clinical, management, evaluative and policy areas all critical to the effective functioning of a successful health care system;
- Highly productive faculty as evidenced through their research and knowledge translation activities;
- Commitment to high quality education;
- Faculty involved in leadership activities provincially, nationally and internationally in various aspects of health care policy, management, research and practice;
- Very successful graduates;
- Creative management of resources with increased understanding of revenue sources and expenditures and;
- Dedicated administrative staff.

2. FACULTY

HPME has the largest concentration of health services researchers in Canada. HPME currently has 18 core faculty members, including 16 tenure/tenure stream faculty members and 2 teaching stream faculty members. In addition, there are 199 faculty members whose primary graduate appointment is in the Graduate Department of HPME; many with clinical appointments in the FOM. Another 73 adjunct faculty contribute to the department's educational programs (please see table 1 below). A list of all faculty members is provided in Appendix 2.I.

As a highly interdisciplinary department, faculty have varied academic backgrounds spanning the social and life sciences. For those faculty members whose primary appointment is in a clinical department, their primary graduate appointment is usually in HPME. Many of the status-only appointees have positions in the research institutes and adjunct faculty members are in senior policy, management or clinical positions in the health care field. There has been little turnover in the appointments though we continue to have a significant number of individuals interested in obtaining an appointment. Ongoing maintenance of an appointment is tied to members' contributions to HPME's teaching programs.

Table 1: Summary of HPME Faculty

Category	Number
Tenure/Tenure Stream	16
Teaching Stream	2
Status Only and Cross Appointments	199
Adjunct Appointments	73

The CVs of core faculty, which are available on disk (Appendix 2.II.2. – Faculty Biosketches), describe in detail their teaching, research and community service activities. A summary of their research productivity is outlined in the Research Section of this report. In relation to their community service, faculty are actively involved in the bridging of the academic world with the health practice and health policy fields. They are members of Boards of Directors of hospitals and regional health systems, community health centres, family health teams, professional associations such as the Patient Safety Institute and the Canadian Evaluation Society. Many have chaired and/or been members of government appointed committees which have reviewed major policy changes. In Ontario, the Excellent Care for All Act, 2010 was influenced by HPME's research in the areas of quality, patient safety and health care performance. The Act puts patients first by improving the quality and value of the patient experience through the application of evidence-based health care. Internationally, faculty are involved in activities related to quality, patient safety, health economics, health technology assessment and health care system performance. Faculty research and teaching awards are summarized in Appendix 2.I.3.

Over the past five to seven years the Health Services Research MSc/PhD program has benefitted from the additional recruitment of new faculty which has enabled HPME to continue growing its doctoral program. We have also developed through our research partnerships closer relationships with our status only faculty which has allowed us to financially support a greater number of students. This has ensured that we are able to meet the university's guaranteed funding policy.

The CEHCR program continues to be highly successful. This program relies on clinical faculty whose primary graduate appointment is in HPME. Both the Program Director and the Associate Program Director receive a stipend to direct the program. The model has worked because of the commitment of a select number of clinical Departmental Chairs who support research and graduate education in

clinical epidemiology. Many have seen the benefit this education has had in their own clinical domains. It will be important to ensure that the conditions necessary for success continue including infrastructure to support faculty teaching and a strong relationship with our graduate department.

HPME provides a number of supports for faculty development. On an annual basis, a session is held for all course instructors. New course instructors are strongly encouraged to attend; ongoing course instructors are welcomed. The purpose of these sessions is to provide information to instructors on items such as grading, preparation of course outlines and SGS rules and regulations. The information covered in this session is also captured in Faculty Tip Sheets (Appendix 2.I.1), which are available to all course instructors on the HPME website under a section labeled "Faculty". In addition, on an annual basis, the Department offers a Webinar directed at MSc/PhD supervisors. This Webinar is available to all faculty; new supervisors are strongly encouraged to participate in the session. The Webinar begins with a brief overview of the responsibilities of a supervisor and a student and then allows for a question and answer session. The slides used in this session are available in Appendix 2.I.2.

Also on an annual basis, the Department offers Faculty Development Workshops. Last year's session was entitled "Statistical methods for accounting for confounding or selection bias in observational studies" and attracted over 20 faculty members. The topic of this year's workshop will be "Longitudinal Analysis".

Future Challenges

In the next five to seven years, faculty renewal will be a priority. Forty percent of tenured faculty who are in the baby boomer demographic will be expected to retire within the next five to eight years (assuming an extended retirement age of 68). Their departure has the potential to have a major impact on our graduate programs, in particular, the professional master's program and the undergraduate medical education courses related to management, leadership and collaboration. This program has a long history of success and will need to begin planning for replacement. Faculty members who have taught in these programs have also been instrumental in participating in continuing education programs focused on management and leadership. Because faculty teach in both the professional and research programs, replacement will need to take into account faculty hires who have both a strong disciplinary background with an understanding of the health care landscape.

3. ACADEMIC PROGRAMS

Please Note: HPME assumes graduate responsibilities for the Master of Management of Information (MMI); however, this program is delivered at the University of Toronto-Mississauga Campus and will be reviewed with their programs.

A. RESEARCH DEGREE PROGRAMS

I. Clinical Epidemiology & Health Care Research (MSc/PhD)

PROGRAM DESCRIPTION

The Clinical Epidemiology and Health Care Research program (MSc/PhD CEHCR) is the principal graduate training program for clinical researchers at the University of Toronto who are pursuing research in patient-oriented health services research. CECHR trains clinician scientists who have a health professional background across a range of disciplines, including physicians, pharmacists, physical and occupational therapists, nurses, dentists, chiropractors, naturopaths, and others.

Prior to integration with the Department of Health Policy, Management and Evaluation, Clinical Epidemiology existed as an extra-department unit within the Faculty of Medicine. Clinical Epidemiology was formally integrated into the Department in 1999. In the past decade, integration has proceeded smoothly and is widely perceived to have been of considerable mutual benefit. From an academic perspective, there is considerable overlap of interests, as many faculty who teach in CEHCR courses and supervise CEHCR students have strong interests in health services research. This has led to natural synergies between many HPME faculty across fields. A second strong area of collaboration has been in the area of health technology assessment, with strong links established through the Toronto Health Economics and Technology Assessment Collaborative (THETA). THETA has drawn together faculty interested in decision analysis and quality of life assessment (traditional CEHCR strengths) with those interested in health economics and health policy (traditional HSR strengths). Finally, the integration has fostered increasing collaboration between clinicians and non-clinicians interested in a range of similar problems. The department, which is truly multidisciplinary, has become the main academic home for researchers interested in high quality applied health care and health services research; CEHCR's role in such collaborations is central and invaluable.

PROGRAM OBJECTIVES

The overall aim of the MSc/PhD CECHR Program is to develop a cadre of clinician scientists who will lead the development of an evidence base for health practice and policy in Canada and internationally. This aim aligns most closely with three (italicized below) of the six strategic objectives of the Department:

- Leverage and enhance strategic foci to advance and promote HPME
- *Advance integration, collaboration and strategic partnerships*
- *Recruit the best students and meet changing learner needs*
- *Develop human resources and nurture leadership capacity*
- Generate, test and apply benchmarks for excellence
- Sustain resources and pursue opportunities to increase funding base

For the MSc program, the main objective is to produce highly competent clinician researchers capable of filling academic, research and planning positions in both the public and private sectors. Students of this program are provided with the skills and competencies required by health services and health care researchers; opportunities to network with other health services and health care researchers; a challenging and stimulating learning environment and exposure to a diversity of health services and health care research conducted by our faculty.

For the PhD program, the main objective is to produce well trained and highly competent clinician scientists capable of conducting independent research and of filling academic and senior research and planning positions in both the public and private sectors. This is achieved through providing students with the skills and competencies required to be independent clinician scientists; the opportunity for customized learning experiences that build upon their strengths, interests and experiences; the opportunity to network with other health services and health care researchers; a challenging learning environment which stimulates students and provides exposure to the diversity of research currently being conducted.

ADMISSION REQUIREMENTS

MSc Program – CEHCR

Successful applicants to the MSc Program in CEHCR must have a 4-year undergraduate degree in a health profession from an accredited University with at least a B+ standing in the last two years of study. Our definition of health professionals is expansive, accepting, for example, naturopaths and exercise physiologists. Applicants must submit a statement of intent, which identifies an area of research interest compatible with the expertise and interests of potential thesis advisors. Applicants must also arrange for two confidential letters of reference from academic or professional supervisors or other appropriate contacts.

All potential clinical epidemiology and health care research students are encouraged to discuss their application with a faculty member. Applicants from outside the University of Toronto, as well as applicants who have not had mentorship from a clinical epidemiologist during their clinical training (including many non-physician applicants, as well as physician applicants from specialties without a strong tradition of clinical epidemiology scholarship) are strongly encouraged to contact the Graduate Assistant prior to their application and, when appropriate, are encouraged to discuss their application directly with the Associate Director to ensure that they meet the requirements and are competitive.

PhD Program – CEHCR

PhD requirements are similar to requirements for the MSc program. In general, applicants for direct entry into the PhD program have completed a thesis Masters degree. Those students without a thesis Masters typically apply first to the Masters program and subsequently transfer to the PhD.

Admissions Process

All CEHCR applicants are assessed according to their relevant research experience. Candidates must demonstrate a commitment to a career in research as an independent investigator able to compete for peer-reviewed funding. The admissions committee recognizes that applicants at different levels of training and from diverse backgrounds will have had varying opportunities for research and assesses each applicant accordingly. Each applicant must, however, have a minimum release time of 3 weekdays to devote to the graduate program. Such commitments are required in writing from clinical program directors or division heads to ensure that students have adequate time for completion of the graduate degree. In general, part-time students are not considered for the program.

All eligible applicants are interviewed by two faculty members. At least one of these faculty members attends the admissions committee meeting where applicants are discussed and then ranked.

CURRICULUM AND PROGRAM DELIVERY

CEHCR offers training at both the Doctoral and Masters level. The Doctoral requirements are similar to other HPME fields, 10 half-courses, including a synthesis/comprehensive course, and a thesis. The Masters has two streams, a non-thesis, course-only stream which consists of 10 half-courses, including a research practicum, and a thesis-based stream which consists of 6 half-courses and a thesis.

Working closely with the department executive, we have been very successful in creating a program that maintains very high academic standards while simultaneously having enough flexibility to accommodate the needs of students who are also clinicians. CEHCR students are typically older than most graduate students, have some clinical responsibilities, and have different concerns regarding funding and eventual employment. The department has proven to be a very effective means of coordinating university-based administrative functions for faculty and students who are typically based at hospitals and for establishing solid relationships between clinical faculty (who have their primary graduate appointments within the department) and the School of Graduate Studies. CEHCR's successes can be, in large part, attributable to the ability to work closely and quickly within the department to meet students' and faculty members' needs.

After a rapid expansion in the number of students and new courses in the first half of this decade, the last 5 years have focused on slower but solid growth and consolidating existing resources. CEHCR has continued to expand its course offerings over the last 5 years, typically offering about a new course every 1 to 2 years. New courses are generally offered at the advanced level, suitable for doctoral students or advanced Masters students interested in particular topic areas. New courses have included advanced training in measurement, statistics, and decision analysis.

The Clinical Epidemiology and Health Care Research field has expertise in five key areas:

1. **Observational Data Analysis**
   Toronto has an international reputation as a leading center for research with administrative databases, led by the Institute for Clinical Evaluative Sciences (ICES). CEHCR is the primary graduate department for almost all clinical faculty with an ICES appointment. The establishment of ICES on campus will expand these opportunities, for both students and faculty, and solidify links between HPME and hospital-based research institutes. CEHCR also offers training in research conducted in non-experimental settings (clinic and community cohorts, case-control studies, etc.). A key undertaking for the current academic year will be to review courses across in both CEHCR and HSR to ascertain where we can consolidate resources, minimize repetition, and maximize the educational experience for students.

2. **Clinical Trials**
   CEHCR offers an introductory course in the design and conduct of clinical trials as well as advanced courses that address pragmatic issues in clinical trial design and methodological issues in the design of trials for special populations, such as those with rare diseases.

3. **Decision Sciences**
   CEHCR has a long-established expertise in training in the decision sciences, with basic and advanced courses in decision analysis, and courses in patient-level decision-making and assessment of preferences. In the last five years, CEHCR has worked closely with the Health Services Research (HSR) field to establish close ties with the health economics and technology assessment stream. These links have been facilitated through THETA, which has brought together many faculty and students with similar interests under the broad theme of health technology assessment.

4. **Statistics and Measurement**
   CEHCR mandates an applied course in biostatics to all incoming students. An advanced course is mandatory for all doctoral students but also appeals to many Master's students. This course has been taught outside of the department in previous years but plans are to have this course taught by HPME faculty, with particular attention to the needs of HPME students, starting in this academic year. CEHCR also offers an advanced Bayesian analysis as well as basic and advanced courses in Measurement, focusing on quality of life and functional status measures, and clinical measurement tools and methods.

5. **Knowledge Synthesis and Translation**
   CEHCR offers courses in Systematic Review and Meta-analysis and Evidence-based Guidelines. CECHR faculty are also key members of the department's Knowledge Translation stream.

Current CEHCR Program Curriculum

The MSc CEHCR program curriculum by thesis and non thesis options is outlined below.

Students in the MSc CEHCR Thesis Stream must complete 6 half courses; three of which are required. They can complete a maximum of one research internship and must complete a thesis. Students in the MSc CEHCR Non Thesis Stream must complete 10 half courses; four of which are required. They can complete a maximum of two research internships.

Specific course requirements are provided below:

MSc-Clinical Epidemiology & Health Care Research Required Courses	
Required Courses - Both Thesis and Non-Thesis	
HAD5301H	Introduction to Clinical Epidemiology and Health Care Research
HAD5307H	Introduction to Applied Biostatistics
Required Courses - Non-Thesis Only	
HAD6360H	**Research Internship:** The internship (practicum) is intended to provide students in CEHCR with practical experience in an approved Clinical Research environment under the close supervision of a senior Clinical Epidemiologist.
Plus ONE of the following four options (both Thesis and Non-Thesis):	
HAD5303H	Controlled Clinical Trials
HAD5304H	Clinical Decision-Making and Cost-Effectiveness
HAD5306H	Introduction to Health Care Research Methods Using Health Administrative Data
HAD5309H	Non-Experimental Design for the Clinical Researcher
Elective Course Options	
HAD5302H	Measurement in Clinical Research
HAD5305H	Evidence Based Guidelines
HAD5308H	Evidence Synthesis: Systematic Reviews and Meta-Analysis
HAD5730H	Economic Evaluation Methods for Health Service Research
HAD5763H	Advanced Methods in Health Services Research
HAD6360H	**Research Internship:** The internship (practica) is intended to provide students in CEHCR with practical experience in an approved Clinical Research environment under the close supervision of a senior Clinical Epidemiologist.
HAD5310H	Pragmatic Issues in Conduct of Controlled Trials
HAD5312H	Decision Modeling for Clinical Policy and Economic Evaluation
MSC1060H	Biostatistics for Health Sciences
JNH5000H	Measurement of Patients' Preferences in Health Care Decision Making

The CEHCR PhD program consists of a minimum of 10 half-year courses, oral defence of a dissertation proposal, and completion of a dissertation and its oral defence. All PhD students must complete a Comprehensive Course tailored to assess their ability to demonstrate a high level of competency in CEHCR and satisfactory evidence of proficiency in statistics and research methods. Specific course requirements for the PhD program are provided below:

PHD-CEHCR COURSE REQUIREMENT	
Compulsory Courses	
HAD5301H	Introduction to Clinical Epidemiology and Health Care Research
HAD5307H	Introduction to Applied Biostatistics
MSC1060H	Biostatistics for Health Sciences
HAD5311H	Clinical Epidemiology and Health Care Research Comprehensive Course
Recommended Courses	
HAD5302H	Measurement in Clinical Research
HAD5303H	Controlled Clinical Trials
HAD5304H	Clinical Decision Making and Cost Effectiveness
HAD5305H	Evidence-Based Guidelines
HAD5306H	Introduction to Health Care Research Methods Using Health Administrative Data
HAD5308H	Evidence Synthesis: Systematic Reviews and Meta-Analysis
HAD5309H	Non-Experimental Design for the Clinical Researcher
HAD5310H	Pragmatic Issues in Conduct of Controlled Trials
HAD5730H	Economic Evaluation Methods for Health Services Research
HAD5760H	Advanced Health Economics and Policy Analysis (or equivalent)
JNH5000H	Measurement of Patients' Preferences in Health Care Decision Making
Elective Course Options	
HAD5011H	Canada's Health Care System
HAD5312H	Decision Modeling for Clinical Policy and Economic Evaluation
HAD5313H	Advanced Design and Analysis Issues in Clinical Trials
HAD5314H	Applied Bayesian Methods in Clinical Epidemiology and Health Care Research
HAD6360H	**Research Internship** The internship (practicum) is intended to provide students in CEHCR with practical experience in an approved Clinical Research environment under the close supervision of a senior Clinical Epidemiologist.
HAD6361H	Optional Research Practicum in Clinical Epidemiology
Plus other HPME courses or extra departmental courses as approved by the Director and course instructor.	

ASSESSMENT OF LEARNING

Each CEHCR course has a determined method for assessing students as approved by the departmental curriculum committee. The most common means of assessment are course papers or projects, sometimes done in teams. This is an appropriate method of assessment as it reflects the most common model for conducting clinical and health services research. Thesis-based masters and doctoral students defend their final thesis before an examination committee consisting of the supervisory committee, an internal examiner, an external examiner, and (for doctoral students) a departmental representative.

All thesis-based students are assigned a supervisor; non-thesis based students are assigned a mentor. Formal agreements are required between supervisors and students. Students are encouraged to work with supervisors whose research expertise matches their interests, even if their clinical interests diverge. There are numerous successful examples of faculty members who have supervised students from different clinical disciplines (since our students have typically completed their clinical training, they are often already "expert" in this aspect of the question). CEHCR leadership works closely with students who do not have an identified supervisor to find an appropriate faculty member. Because our faculty are typically hospital-based, we have an internal guideline (with which we are flexible) that faculty members should sit on 2 MSc committees before supervising an MSc student and that they should successfully supervise an MSc student to graduation before supervising a PhD student. This approach has been very successful in ensuring that supervisors learn the expectations and regulations of the department.

Supervisors are expected to meet regularly with students, to assist the student in the timely completion of the program, to review students' annual study plans, to provide mentorship regarding funding opportunities and career development and to assist with thesis committee membership.

STUDENT AWARDS

There are a large number of awards available to students enrolled at the University of Toronto, with information/listings available to students on the University's Website (http://www.adm.utoronto.ca/adm-awards/html/awards/mainawdpage.htm). Specific HPME awards for which students in the MSc and PhD CEHCR program are eligible include the following:

- **The Claire Bombardier Award for Most Promising MSc CEHCR Student**
  Awarded to the most promising MSc CEHCR student
  Amount: $1000.00

- **The Claire Bombardier Award for the Most Promising PhD CEHCR Student**
  Awarded to the most promising PhD CEHCR student
  Amount: $1000.00

- **Thomas and Edna Naylor Memorial Award**
  Awarded on the basis of best paper from thesis in the fields of HSR and CEHCR
  Amount: $1000.00

- **HPME Research Day Poster Awards – MSc CEHCR**
  Awarded to the best and second best poster for students enrolled in the MSc CEHCR program
  Amount: Best Poster $150.00, Second Best Poster $100.00

- **HPME Research Day Poster Awards – PhD CEHCR**
  Awarded to the best and second best poster for students enrolled in the PhD CEHCR program
  Amount: Best poster $150.00, Second Best Poster $100.00

- **Maureen Dixon Award**
  Awarded to the best poster in Community Care
  Amount: $500.00

- **Robert Duff Barron Award**
  Awarded to the best poster related to health policy or public health policy
  Amount: $500.00

- **Best Oral Presentation at Research Day**
  Awarded to the best oral presentation at annual Research Day
  Amount: $150.00

STUDENT FUNDING

In line with University policy, the Department introduced a "full funding policy" for all thesis students in 2001-2002. This policy ensures that all full time students are provided a minimum of $15,000 plus tuition for the first year of their MSc and the first four years of their PhD programs. Students who are earning more than this amount, or who have fellowships or grants, are exempt from this policy.

In practice, almost all CEHCR students are supported by external awards or hospital-based salaries. In occasional circumstances, students are allowed to self-fund through clinical earnings although such arrangements are discouraged, as they often do not lead to sufficient protected time for research. Almost all of the CEHCR students are employed and earn more than the minimum amount that would make them eligible for the departmental funding policy. Students are required to secure funding for the first year of their program as part of the application process, either through student awards or faculty members' grants. There are limited opportunities for teaching assistant positions. Such opportunities have been attractive to some international students whose other work opportunities are more limited. No more than one or two students in any given year seek financial support from Departmental resources.

QUALITY INDICATORS

Student Indicators

Table 2 provides information on the number of applications, offers and new registrations to the MSc-CEHCR program from 2005-2006 to 2009-2010. Information on PhD-CEHCR applications and offers is included in the discussion of the HSR PhD; relatively few CEHCR students are eligible for direct entry into a PhD program due to the non-thesis nature of their graduate degrees.

The table indicates some fluctuations in the number of applications; over time, the program has more clearly communicated its entrance requirements (a health professional degree) and this has decreased the number of applications from ineligible candidates. The program is limited to a maximum of 30 students per year (the number that can be accommodated in the introductory Clinical Epidemiology and Health Care course). The offer rate (number of offers compared to the number of applications) averages to about 50% over the time period. The acceptance rate (number of new registrants to number of offers) remains fairly constant at about 85%.

TABLE 2: MSc-CEHCR Applications, offers and new registrations 2005-2006 to 2009-2010

	2005-06	2006-07	2007-08	2008-09	2009-10
Applications	45	81	85	65	51
Offers	30	34	36	30	25
New Registrants	19	28	27	26	22

Data Source: ROSI, 4BEG (Admission Statistics).

Table 3 provides information on the number of students enrolled in the MSc-CEHCR program from 2005 – 2009. Again, information on the PhD-CEHCR students is presented with the PhD-HSR statistics. These numbers reflect the decision to limit admissions to the part time program and the stable intake to the full time program.

TABLE 3: CEHCR-MSc Enrollment Fall 2005 – Fall 2009

Degree	Attendance Class	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
MSC -CEHCR	PT	12	9	7	6	3
	FT	45	47	52	49	52

Data Source: Graduate Enrolment Cube, Fall 2000 to Fall 2009.

Table 4 provides information on the time to completion rates for the MSc-CEHCR program. Information on doctoral students is included with the PhD-HSR data. On average, MSc students complete their programs in just over 2 years, which is on par with other life sciences MSc programs. The time to completion is longer than the time to completion for all University of Toronto programs; there are many "one year Masters" programs in the wider University. The CEHCR program, which attracts health professionals working in health research, has not been designed with this format in mind.

TABLE 4: Mean (range) and Median Times to Completion (TTC) of MSc-CEHCR Program

	HPME					
	MSc CEHCR		Life Sciences		All UT	
Year of Graduation	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads
2003-04	2.97	13	2.52	281	1.78	1080
2004-05	3.42	15	2.49	267	1.79	1111
2005-06	3.03	18	2.48	318	1.77	1149
2006-07	2.51	19	2.34	299	1.73	1079
2007-08	2.43	23	2.45	297	1.68	1112
2008-09	2.04	9	2.39	293	1.60	1319
2009-10	2.49	15	2.36	352	1.67	1299

Data Source: ROSI, screen 4BEA (Years to Graduate).

Table 5 provides information on the program progression rates of full time MSc-CEHCR students. Information on CEHCR doctoral students is included in the HSR section. The table indicates that approximately 20% of CEHCR students transfer to the PhD program. The table also indicates a withdrawal rate of less than 10% and a completion/transfer rate over three years of just under 80%. Just under 20% of students are still working on their degree after 3 years of enrolment.

TABLE 5: Rates of Graduation – MSc CEHCR

Year	New	After 6 terms (2 years)				After 9 terms (3 years)			
		TR	WD	CO	IP	TR	WD	CO	IP
2001-02	9	3	0	0	6	3	1	3	2
2002-03	23	6	0	6	11	6	0	13	4

2003-04	19	3	0	4	12	3	0	12	4
2004-05	29	4	1	5	19	4	2	18	5
2005-06	18	3	1	6	8	3	1	11	3
2006-07	23	5	0	5	13	5	0	15	3
2007-08	27	7	4	2	14	7	6	10	4

	After 6 terms (2 years)				After 9 terms (3 years)			
	TR	**WD**	**CO**	**IP**	**TR**	**WD**	**CO**	**IP**
Averages:	21%	4%	19%	56%	21%	7%	55%	17%

Legend: **TR -** transferred from master's to PhD
WD - permanent withdrawals and lapses (**attrition rate**)
CO - completed degree (**graduation rate**)
IP - in progress

Graduate Indicators

Since its inception, CEHCR has graduated 282 students, 33 (12%) at the doctoral level. Exactly 50% of graduates are women. The large majority (264, 94%) of graduates are physicians, with three specialties – medicine (120), surgery (62), and pediatrics (48). Of the 18 non-physician graduates, 5 have been in rehabilitation sciences, 5 in pharmacy, 3 in chiropractic, and 5 from other areas.

CEHCR graduates have been very successful. Overall, 80% are in full-time academic positions, 88% in Canada, 7% in the US and the remainder in Australia, the United Kingdom, Switzerland, Israel, Japan, and Saudi Arabia. Overall, 144 (52%) of our graduates have remained at the University of Toronto. A list of MSc CEHCR thesis titles from 2006 to 2011 can be found in Appendix 3.A.I.1. A list of PhD CEHCR thesis titles can be found in Appendix 3.A.I.2. A list of recent employment of PhD graduates can be found in Appendix 3.A.I.3.

QUALITY ENHANCEMENT

Student Support

CEHCR students are typically affiliated with a hospital-based research institute and have office space and administrative support through such arrangements. For students for whom such support is not available, student space is available in the department.

CEHCR holds a half-day orientation session for all incoming students. Each student also meets individually with the Associate Director to review their intended training program, supervision or mentorship, committee membership, funding, and clinical responsibilities and time allocation.
Students have multiple opportunities for feedback. In addition to the regular course evaluations, student representatives at the Masters and Doctoral level are active members of the CEHCR executive committee and the departmental curriculum committee. The CEHCR directors also hold annual end-of-year debriefing sessions with students. Finally, students are invited to contact the directors at any time with any issues.

Course Development and Integration

As noted above, the most important advance in course development is the establishment of a departmental doctoral-level course in biostatistics. Previously, students enrolled in a course taught in

the Institute for Medical Sciences, but this course was perceived by many students to fall short of meeting their needs, primarily because of a lack of attention to practical applied statistics. This plan follows a comprehensive review of the biostatistical needs and relevant course curricula conducted last year. Of note, this course will be for students across all fields and is intended as a second course following a first (field-specific) course. The program is planning a similar process for courses focused on aspects of health services research and observational design, in particular looking to integrate courses across fields when possible and to ensure that students get the best educational experience possible.

Faculty Development

CEHCR has taken the lead in organizing workshops for faculty development. The first workshop was held in the 2009-10 academic year and the next is planned for the current year. These workshops are aimed at faculty members and topics are selected following a survey of interests. These workshops are funded from funds generated by the Clinical Epidemiology Institute but are open to all HPME faculty. We have also opened spots to post-doctoral fellows who are interested in attending.

Faculty Engagement

We have a large number of clinical faculty who have an appointment in the department and who teach and supervise primarily in the CEHCR stream, which raises some issues. First, we have reviewed all faculty members to ensure that individuals who have an appointment are actively teaching within HPME and that we have a full accounting of their activities. It is an expectation of the department that all faculty should contribute to teaching at some level (for example, as a lecturer, faculty tutor, course instructor, in collaborative programs, or in continuing medical education activities). The teaching hours are not rigorously defined but should be enough to be meaningful but not onerous. Faculty appointments are now for a three-year term. We have not renewed a few appointments in the last few years for faculty who were not active in the department. A second issue is the limited opportunity to supervise given the relatively large faculty to student ratio in CEHCR. We are continuing to work with faculty members to look for opportunities to sit on student committees and encouraging membership and supervision across fields. With the transition to an extra-departmental unit, it will be important for faculty to understand the new structure and to continue to be active in all unit activities.

Needs of non-physician applicants and students

The majority of CEHCR applicants and students are physicians. Although we continue to encourage applications from non-physician clinicians (and we evaluate applicants according to expectations of their peers within the same discipline and training level), we continue to have low numbers of non-physician applicants in many disciplines. In part, this is likely attributable to the lack of mentorship within CEHCR and also to the establishment of graduate research programs in many clinical departments (including pharmacy, rehabilitation sciences, and nursing). We continue to explore methods to market our program more effectively. In addition, we are planning to explore opportunities for joint programs with relevant clinical departments. Such joint programs benefit HPME by increasing the diversity and number of students and benefit other departments by granting students access to HPME courses and exposure to HPME faculty.

A similar issue relates to career opportunities for non-clinicians. While clinician graduates often follow a set career path (and most disciplines have a tradition of funding clinician scientists), similar trajectories for non-physicians are often unclear or even absent. Accordingly, non-physicians often need to consider a wider range of options, including post-doctoral fellowships, careers in industry or consulting, or careers with public agencies. To date, we have offered only informal guidance to our non-physician students, but we are planning to offer regular workshops to provide more formal and consistent information that meets the needs of these students.

II. Health Services Research (MSc/PhD)

PROGRAM DESCRIPTION

The MSc/PhD Program in Health Services Research (HSR) provides a comprehensive, multi-disciplinary curriculum designed to address the competencies identified for health services researchers (Morgan, Orr & Mah, 2010; Forrest et al., 2009). The MSc/PhD HSR Program affords excellent preparation for students who are interested in careers in research that will contribute to improving the planning, delivery and outcomes of health care.

With 140 students engaged at various points in their degree programs, HPME's HSR Program is the largest graduate program in health services research in English Canada. Currently, 56% of our students are doctoral students, while 44% are pursuing their Master's degrees. Our students, like our faculty, are highly multi-disciplinary, coming from fields as diverse as psychology, sociology, demography, biology, nursing, social work, business, pharmacy, medicine, statistics, economics, political science, and epidemiology.

One of the major research objectives of the Department of HPME is to engage in research which furthers knowledge about health systems effectiveness, using a range of social, economic, political, epidemiologic, and other science theories and methods. As per the Department's mission statement, HPME faculty pursue research that will "be relevant to health managers and policy makers, and will be driven by theory and practice-based problems." The multi-disciplinary character of the Department, its connection with the Faculty of Medicine, and the extent of formal and informal ties with researchers at other universities and in the health field more generally, serves as a benefit to our students and facilitates the multi-disciplinary, intra-university research conducted by our faculty and students that spans both public and private sectors of health care.

To assist students in the development of an interdisciplinary philosophy and approach to health services research, the HSR Program combines intensive graduate training in health services research with advanced training in academic disciplines such as economics, industrial relations, law, financial and human resources management, organizational behavior, political science, sociology and information studies.

Students of the MSc/PhD HSR Program focus their work in the areas of Health Policy, Health Economics, Health Services Organization and Management, eHealth Innovation and Information Management, Health Technology Assessment, or Health Services Outcomes and Evaluation. These serve as areas of specialization for Master's students, and as areas of concentration for our doctoral students. Within any of these areas of specialization, or concentration, students can further specialize in Knowledge Translation.

Students of the MSc/PhD HSR Program can avail themselves of a range of joint and collaborative programs with other departments and faculties including Bioethics, Global Health, International Relations, Women's Health, and Aging, Palliative and Supportive Care across the Life Course (for a complete listing of Collaborative Programs see Section 4).

PROGRAM OBJECTIVES

The MSc/PhD HSR Program objectives align most directly with three of the six strategic objectives of the Department, included below:

- Leverage and enhance strategic foci to advance and promote HPME
- *Advance integration, collaboration and strategic partnerships*
- *Recruit the best students and meet changing learner needs*
- *Develop human resources and nurture leadership capacity*

- Generate, test and apply benchmarks for excellence
- Sustain resources and pursue opportunities to increase funding base

Through the development of each student's individualized study plan, we reinforce and advance the importance of integration, collaboration, and inter- and multi-disciplinarity. All of those students selected from our applicant pool have an excellent record of scholarship, and an aptitude for health services research. We have responded, year over year, to changing learner needs through the development of new courses, the continuous quality improvement of others, and with the revision of the HSR Program curriculum that has been founded on work to identify health services research competencies (Morgan, Orr & Mah, 2010; Forrest et al., 2009). The primary objective of the MSc/PhD HSR Program is to build health services research leadership capacity.

The main objective of the MSc-HSR program is to produce competent health services and clinical researchers capable of filling academic, research and planning positions in both the public and private sectors. Students of this program are provided with the skills and competencies required by health services and health care researchers; opportunities to network with other health services and health care researchers; a challenging and stimulating learning environment; and exposure to a diversity of health services and health care research conducted by our faculty.

The overall objective of the Doctor of Philosophy (PhD-HSR) degree is to produce well-trained and highly competent health services and health care researchers capable of conducting independent research and of filling academic and senior research and planning positions in both the public and private sectors. This is achieved through providing students with the skills and competencies required to be independent health services and health care researchers; the opportunity for customized learning experiences that build upon the student's strengths, interests and experiences; the opportunity to network with other health services and health care researchers; a challenging learning environment which stimulates students and provides exposure to the diversity of health services and health care research.

ADMISSION REQUIREMENTS

MSc Program – HSR

Successful applicants to the MSc program in HSR must have an excellent record of scholarship and an aptitude for health services research. MSc applicants must have graduated from a 4-year undergraduate program with at least a B+ standing in the last two years of study. As part of the application process, two confidential letters of reference are submitted that indicate to the admissions committee the applicant's preparation and competence to conduct research studies. Applicants are required to provide a statement of intent that includes: an outline of their research interests; a statement of their interest in health services research; and a description of the specific areas of research they would like to pursue.

PhD Program – HSR

Successful applicants to the doctoral program in HSR must have an excellent record of scholarship and an aptitude for health services research. PhD applicants will ideally have completed a thesis Master's degree or have equivalent research experience. Applicants without a thesis Master's or relevant research experience are eligible for the MSc/PhD Transfer Program. PhD applicants must have graduated from their Master's program with at least a B+ average. As part of the application process, two confidential letters of reference are submitted that indicate to the admissions committee the applicant's preparation and competence to conduct research studies. Applicants are also requested to provide a statement of intent that includes: an outline of their research interests; a statement of their interest in health services research; and a description of the specific areas of research they would like to pursue.

Program Marketing & Student Recruitment

Since 2007, and in response to pressures to increase graduate enrolment, the Program Director has developed and disseminated e-communications to undergraduate and graduate coordinators situated in the top 9 universities in Canada in units that represent the disciplines from which we have historically drawn our students (and faculty), e.g., psychology, sociology, demography, biology, nursing, business, pharmacy, medicine, statistics, economics, political science, and epidemiology. For Fall 2010, prior to our application deadline, we delivered a webinar for prospective applicants to the HSR Program.

Admissions Process

The admissions process, revised over the past four years, is important to achieving the Program's strategic objectives relating to recruiting the best students, building excellence in research leadership capacity, and addressing learner needs. The application deadline for the MSc/PhD HSR Program is mid-November of the year prior to Program start. All SGS-eligible applications are reviewed first by the Graduate Program Assistant, then by the Admissions Committee (Program Director, Graduate Coordinator, and Graduate Program Assistant) in the interests of identifying faculty with interests complementary to those expressed by the applicant, then bringing these applicants to the attention of specific faculty. All SGS-eligible applications are posted on a Blackboard Community in December, to which all HPME faculty, with interests in HSR Program student supervision, have access. Over the months of December and January, faculty members are invited to indicate their interests in interviewing applicants. 30-minute interviews are coordinated that include 1) the applicant, 2) all faculty with interests in potentially supervising the applicant; 3) a member of the HSR Program Advisory Committee (Program Director, Graduate Coordinator, 4 tenured HPME faculty with extensive HSR Program supervision experience); and 4) a senior HSR Program doctoral student.

Applicants are asked to discuss their research interests, their research and work experience to date, their motivations for applying to HPME's Health Services Research Program, their proposed study/work plan, and their career aspirations. These topics form the basis of the interview discussion. Subsequent to the applicant's interview, the Admissions Committee consults with faculty who have confirmed their interests in supervising the applicant regarding funding and, in the case of many Master's students, potential thesis projects. Most applicants are advised of Program decisions by the month of March prior to start of their academic program in September. A one hour program orientation and course planning meeting involving the Student, their Supervisor, and the Program Director is arranged over the months of May, June or July.

CURRICULUM AND PROGRAM DELIVERY

MSc Program – HSR

The MSc program consists of a minimum of 6 half-year courses and completion of a research thesis of acceptable quality and its oral defense. Two of the courses must be in the area of specialization and two must be in research methods and/or statistics. The remaining two are elective courses. While many of our Master's students enter into the HSR Program with interests in pursuing their thesis research in a specific area (e.g., health economics, organizational behavior, health policy) or research setting (e.g., acute care, long term care), the majority of our MSc students' primary objectives relate to acquiring specific research skills, or enhancing those acquired through their undergraduate degree. In many instances, then, elective courses comprise additional research methods or statistics courses. Course selection is made in consultation with the Student, the Supervisor and the Program Director; selection is strategic such that it 1) supports the student in their completion of their thesis project ,and 2) equips the student with the theoretical and practical knowledge and research skills that they require in pursuit of their career as a health services researcher.

To be eligible for the minimum program, students must have knowledge of the Canadian health care system and basic research and statistics skills. Students whose preparation is insufficient in these areas

are required to take additional courses. Course transfers are possible for those students who have successfully completed graduate level courses at accredited universities, but where no degree was awarded for completion of those courses.

MSc thesis research is supervised by a faculty member who has an appointment (either primary or cross-appointment) in HPME. The thesis is completed under the supervision of a thesis committee (supervisor and at least one, but normally two, additional members) and is defended before an examination committee appointed by the Department of Health Policy, Management and Evaluation. The MSc thesis Supervisor is a faculty member with content expertise relating to the student's thesis work – generally these are individuals who lead large programs of research in the area. Other thesis committee members will offer methodological expertise and/or additional content expertise. A copy of thesis titles of program graduates (2006-2011) can be found in Appendix 3.A.II.1.

Thesis milestones for students pursing the MSc HSR Program are illustrated below:

The Department strongly encourages students who are pursuing a Masters Degree program in HPME to complete their Masters program before applying to the PhD program. However, exceptionally qualified students who are currently enrolled in a Masters program in the Department may also request to transfer to a PhD program. To do so, they must complete and submit within the deadlines specified, all the documentation outlined above for those students who are enrolled in the MSc to PhD Transfer Program.

PhD Program – HSR

The PhD program consists of a minimum of 10 half-year courses (one of which is a comprehensive course concluding with an examination), the oral defense of a dissertation research proposal, and completion of a dissertation and its oral defense.

Currently, students pursue 1 of 5 possible concentrations: Health Services Organization and Management, Health Policy, Health Services Outcomes and Evaluation; E-Health Innovation and Information Management, and Health Economics (as of Fall 2011). Preparation for the introduction of a sixth concentration in Health Technology Assessment for Fall 2012 is underway. Successful completion of the doctoral program requires demonstrated knowledge of dominant theoretic frameworks that apply to the study of health services research generally, and to the discipline-related concentration specifically; conversance with quantitative, qualitative and mixed methods; ability to develop appropriate research designs; and ability to apply appropriate strategies in the analysis of primary and secondary data. In undertaking their dissertation research, students are expected to employ an appropriate theoretical and conceptual framework to guide their dissertation work, and to make both theoretic and practical contributions to the field of health services research through their dissertation research. A listing of PhD thesis titles of graduates (2006-2011) can be found in Appendix 3.A.II.2. Each area of concentration is referenced in a separate table in this appendix.

- The *Health Services Organization and Management concentration* draws upon the disciplines of organization and management science, implementation science, sociology and organizational psychology to understand the organization of health services and the impact of management and organizational practices on performance. Students involved in this concentration come with a variety of backgrounds ranging from the basic sciences to the social sciences; all are interested in training for a career in health services research and in leading future research initiatives that include examining meso- and macro-level organization issues, system-level structure and performance, and the uptake and application of research evidence in practice and decision making at all levels of the health care system. Topics of particular interest in this concentration include: patient safety and quality of care, organizational learning and knowledge transfer, organizational change, leadership, inter-organizational relationships and networks, governance, evidence based management, and evidence based practice change.

- The *Health Policy concentration* draws on a range of disciplines including political science, health economics, sociology of health and illness, science and technology studies and bioethics to consider the design and governance of health care systems locally, nationally and globally. Students and faculty in this stream aim to understand and influence how health services are funded, allocated and delivered to different populations including children, older persons, persons with disabilities, and diverse communities. Health care providers, organizations and decision-makers are engaged as partners and collaborators in education, research and knowledge transfer. Students in the Health Policy concentration include experienced health professionals, who want to make sense of the complex environments in which they work, as well as advanced graduates of the social and health sciences who wish to apply their academic skills to the field of health care.

- The *Health Services Outcomes and Evaluation concentration* draws upon several academic disciplines including epidemiology and program evaluation to systematically examine the impacts of health services (e.g., mental health, primary care, acute care, chronic care, mental health) on the health status of various populations. Successful completion of this concentration requires demonstrated knowledge of: quantitative, qualitative and mixed methods; primary data collection and secondary data sources; and the strengths, weaknesses and appropriate application of different research designs and data analysis strategies. Students are exposed to a variety of theoretical and conceptual frameworks and are expected to select and/or adapt such a framework as part of the dissertation. Topics of particular interest in this concentration

include: access to care, health services costs and economic evaluation, performance measurement, and quality improvement.

- The *E-Health Innovation and Information Management concentration* prepares a new generation of graduate students to become researchers, clinicians, managers and policy makers who are proficient in their discipline and also in healthcare information management. It acts as a catalyst for interdisciplinary collaborative research to tackle major issues around the design, development, evaluation and use of electronic health solutions.

- The *Health Economics concentration* involves the study of resource allocation within the health sector and between that sector and other sectors. The Health Economics specialization is designed to enable participants to apply the foundations of economic analysis to theoretical, empirical, evaluative, and policy issues in the field of health and health care. Specific attention is paid to the choices and other behaviors of health care recipients, health care providers, and third party payers and regulators as well as methods for evaluating health care services, technologies and programs. Graduates acquire knowledge and skills in the application of health economic theories, concepts and methods to important contemporary issues.

Regardless of concentration, doctoral students may also pursue a Specialization in Knowledge Translation. This specialization focuses on developing knowledge and research skills that will contribute to the effective and timely incorporation of evidence-based information into the practice of health professionals in such a way as to influence optimal health care outcomes and maximize the potential of the health system. Students who complete the course requirements will acquire a firm understanding of the elements of knowledge translation and be prepared to undertake a research career in this burgeoning and critical area. Students may come from a variety of backgrounds and may include clinicians, clinician-scientists, health services researchers, policy analysts and policy makers.

Upon entry, students must have knowledge of the Canadian health care system and basic research and statistics skills. Students whose preparation is insufficient in these areas are required to take additional courses. Course transfers are possible for those students who have successfully completed graduate level courses at accredited universities, but where no degree was awarded for completion of those courses.

PhD thesis research is supervised by a faculty member who has an appointment (either primary or cross-appointment) in HPME. The thesis is completed under the supervision of a thesis committee (supervisor and at least two additional members) and is defended before an examination committee appointed by the Department of Health Policy, Management and Evaluation. The PhD thesis supervisor is a faculty member with content expertise relating to the student's thesis work – generally these are individuals who lead large programs of research in the area. Other thesis committee members will offer methodological expertise and/or additional content expertise. Thesis committees are often comprised of faculty from more than one area of concentration. The School of Graduate Studies provides a chair for the final oral examination.

Thesis milestones for students pursing the PhD-HSR Program are illustrated below, followed by a sample timeline for doctoral studies.

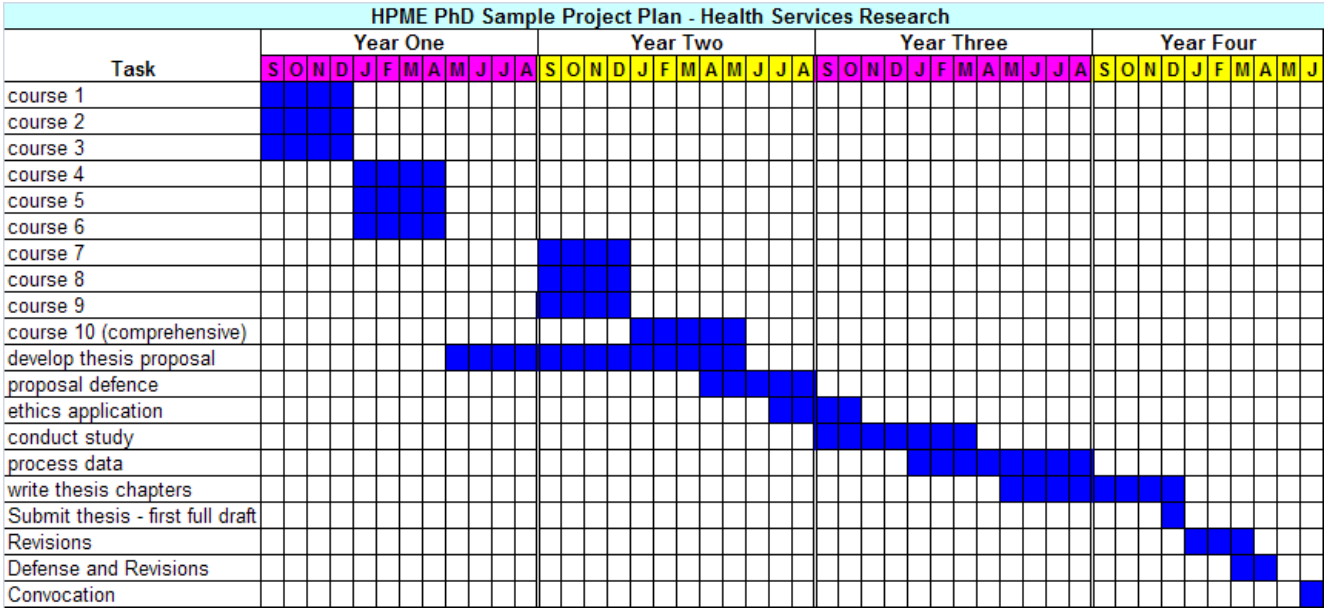
Thesis Milestones – PhD*

- Typically, in Years 1 & 2
  - Undertake & complete coursework in parallel with "evolving" your research topic
  - Complete Comprehensive Exams Course in selected Concentration
  - Thoughtfully populate your Committee in consultation with your Supervisor (minimum of 3, 1 being your Supervisor)
  - Develop a draft thesis proposal in consultation with your Supervisor and Committee members (meet at least every other month) (this is an iterative process)

- Typically, in Year 3 (NB: ABD Deadline is 3 years from Registration)
  - Defend Dissertation Research Proposal (early Fall; sometimes Summer Year 2)
  - Seek approval of protocol from the Ethics Review Board (see http://www.research.utoronto.ca/for-researchers-administrators/ethics/human/)
  - Data collection & preliminary analysis

- Typically, in Years 4 & 5
  - Complete Data collection, analysis & write-up (iterative process)
  - Consult with your Committee re: appropriate Internal & External Examiners
  - Review guidelines for preparation of Dissertation & Defense http://www.sgs.utoronto.ca/informationfor/students/finish/final.htm
  - Defend Dissertation

*some variation for MSc Transfer & PhD Flex-Time Students



Current HSR-PhD Program Curriculum

The current curriculum for the HSR Program is predicated on ongoing work being led by Morgan, Orr & Mah, 2010 and Forrest et al., 2009 that has identified key health services research competencies. This work presents an organizing framework for competencies relevant to doctoral training. The current course of study by concentration is outlined below:

PhD-HSR REQUIRED COURSES		
Health Services Organization and Management		
FALL 1	**HAD5011H**	Canada's Health Care System
WNTR 1	**HAD5772H**	Intermediate Statistics for Health Services Researchers (or equivalent)
FALL 1	**HAD5773H**	Introduction to Theories of Organizational Behavior and Applications to the Health Care Sector
FALL 1	**HAD6760H**	Introduction to Health Services Research Theory & Methods
WNTR 1	**HAD7001H-S4**	Introduction to Health Services Research Theory & Methods 2
WNTR 2	**HAD6762H**	Health Services Organization and Management Comprehensive Course
	+ Plus 4 elective courses.	
Health Policy		
FALL 1	**HAD5011H**	Canada's Health Care System
WNTR 1	**HAD5772H**	Intermediate Statistics for Health Services Researchers (or equivalent)
FALL 1	**HAD6760H**	Introduction to Health Services Research Theory & Methods
WNTR 1	**HAD7001H-S4**	Introduction to Health Services Research Theory & Methods 2
WNTR 1	**HAD5021H**	Advanced Health Policy Analysis
WNTR 2	**HAD6763H**	Health Policy Comprehensive Course
	+ Plus 4 elective courses.	
Health Services Outcomes & Evaluation		
FALL 1	**HAD5011H**	Canada's Health Care System
FALL 1	**HAD5730H**	Economic Evaluation Methods for Health Services Research
WNTR 1	**HAD5772H**	Intermediate Statistics for Health Services Researchers (or equivalent)
FALL 1	**HAD6760H**	Introduction to Health Services Research Theory & Methods
WNTR 1	**HAD7001H-S4**	Introduction to Health Services Research Theory & Methods 2
SUMM 1	**HAD5763H**	Advanced Methods in Health Services Research
SUMM 1	**HAD5760H**	Advanced Health Economics and Policy Analysis (or equivalent)
WNTR 1	**HAD6761H**	Health Services Outcomes and Evaluation Comprehensive Course
	+ Plus 2 elective courses.	
eHealth Innovation and Information Management		
FALL 1	**HAD5011H**	Canada's Health Care System
WNTR 1	**HAD5772H**	Intermediate Statistics for Health Services Researchers (or equivalent)
FALL 1	**HAD6760H**	Introduction to Health Services Research Theory & Methods

WNTR 1	**HAD7001H-S4**	Introduction to Health Services Research Theory & Methods 2
FALL 1	**HAD5726H**	Design and Evaluation in eHealth Innovation and Information Management
FALL 2	**INF1341H**	Analyzing Information Systems
SUMM 1 OR SUMM 2	**INF1342H**	System Requirements and Architectural Design
WNTR 2	**HAD6764H**	eHealth Innovation and Information Management Comprehensive Course
	+ Plus 2 elective courses.	
Health Economics		
FALL 1	**HAD5011H**	Canada's Health Care System
FALL 1	**HAD5730H**	Economic Evaluation Methods for Health Services Research
WNTR 1	**HAD5760H**	Advanced Health Economics and Policy Analysis (or equivalent)
FALL 1	**HAD7001H-S3**	Health Econometrics
FALL 1	**HAD6760H**	Introduction to Health Services Research Theory & Methods
WNTR 1	**HAD7001H-S4**	Introduction to Health Services Research Theory & Methods 2
FALL 2	**HAD5304H**	Clinical Decision Making and Cost Effectiveness
	+ Plus one of	
WNTR 1	**HAD5301H**	Introduction to Clinical Epidemiology and Health Care Research
FALL 2	**CHL5401H**	Introduction to Epidemiology
FALL 2	**HAD5307H**	Introduction to Applied Biostatistics
	+ Plus one of	
FALL 2	**HAD5738H**	Advanced Methods for Economic Evaluation
WNTR 1	**HAD7001H-S2**	Ideas and Arguments in Health Care Policy
	+ Plus	
WNTR 1	TBD	Advanced Health Economics & Policy Analysis II Comprehensive Course (under development)

Elective Courses	
HAD5738H	Advanced Methods for Economic Evaluation
HAD5765H	Case Studies in Health Policy
HAD5768H	International Perspectives on Health Services Management
HAD5771H	Resource Allocation Ethics
HAD5776H	Issues in Qualitative Health Services Research (part of Essentials of Qualitative Research (EQR) Course Series)
HSR1001H	Introduction to Qualitative Methods for Health Services & Policy Research
JNH5001H	Health Care and Place: Issues, Concepts, Measures and Policies
HAD5727H	Knowledge Transfer and Exchange
HAD5729H	Knowledge Translation and Information Behavior in Health Care
JNH5003H	Home and Community Care Knowledge Translation
HAD5737H	Tools for Implementation of Best Evidence
Other courses: Required courses in other concentrations can also serve as electives	

ASSESSMENT OF LEARNING

Beyond interim and final assignments relating to coursework, processes have been put into place to ensure that the Program's objectives are obtained and that the learning objectives of individual students are fulfilled:

- All incoming students meet with the Program Director to develop a course of studies when they are accepted into the program. Course selection is strategic such that it 1) supports the student in their completion of their intended dissertation research project, and 2) equips the student with the theoretical and practical knowledge and research skills that they require in pursuit of their academic career as a health services researcher.

- In subsequent years, all students meet with the Program Director and their Supervisor annually to review their progress in their coursework and thesis or dissertation research, to review their career goals, and to update their learning and work plan to ensure that the student is receiving the experiences and training they need to achieve their goals (see the *MSc/PhD Annual Progress Report-Health Services Research Program* form http://www.hpme.utoronto.ca/Assets/hpme/current/hsr-progress.pdf). The Program Director also works to link graduates with employment opportunities. Information about current positions is provided to all students through a student listserv and via a job opportunities page on the HPME website (See http://www.hpme.utoronto.ca/for/currentstudents/careeropps.htm).

- Throughout the program, the student is required to meet with his/her Supervisor and/or Committee a minimum of 6 times a year; minuting of these meetings in encouraged (see *Committee Meeting Report* http://www.hpme.utoronto.ca/Assets/hpme/current/thesiscommittee.pdf).

The quality of graduate supervision in the HSR Program is assured through the annual reviews described above, through the stipulation of bimonthly committee meetings, and through the MSc/PhD Student Supervision webinar mentioned previously (see Appendix 2.I.2.). HPME also has a "mentors mentorship process" whereby faculty new to student supervision first serve as committee members – first on MSc, then on PhD committees – prior to serving in a supervisory capacity.

The webinar for faculty serving as student supervisors is offered twice a year to ensure that supervising faculty are conversant with program-related processes; Department expectations regarding timelines; and the School of Graduate Studies' (SGS) expectations regarding the conduct of supervisors, SGS policies, and the content and format of theses and dissertations, and related defenses.

STUDENT AWARDS

There are a large number of awards available to students enrolled at the UofT, with information/listings available to students on the University's Website (http://www.adm.utoronto.ca/adm-awards/html/awards/mainawdpage.htm). Specific HPME awards for which students in the MSc and PhD HSR program are eligible include the following:

- **The Ted Goldberg Scholarship (HSR Doctoral Students only)**
  Awarded on the basis of academic excellence and promise in HSR
  Amount: $1000.00

- **Thomas and Edna Naylor Memorial Award**
  Awarded on the basis of best paper from thesis in the fields of HSR and CEHCR
  Amount: $1000.00

- **HPME Research Day Poster Awards – MSc HSR**
  Awarded to the best and second best poster for students enrolled in the MSc CEHCR program
  Amount: Best Poster $150.00, Second Best Poster $100.00

- **HPME Research Day Poster Awards – PhD HSR**
  Awarded to the best and second best poster for students enrolled in the PhD CEHCR program
  Amount: Best poster $150.00, Second Best Poster $100.00

- **Maureen Dixon Award**
  Awarded to the best poster in Community Care
  Amount: $500.00

- **Robert Duff Barron Award**
  Awarded to the best poster related to health policy or public health policy
  Amount: $500.00

- **Best Oral Presentation at Research Day**
  Awarded to the best oral presentation at annual Research Day
  Amount: $150.00

STUDENT FUNDING

In line with University policy, the Department introduced a "full funding policy" for all thesis students in 2001-2002. This policy ensures that all full-time HSR Program students are provided a minimum of $15,000 plus tuition for the first year of the MSc and the first four years of study in the doctoral program.

All students are encouraged to apply for external funding and annual workshops are provided to assist students in preparing their applications. This workshop is led by HPME faculty and is held in September of each year to assist students in preparing their scholarship, fellowship and award applications. Senior students in the MSc/PhD HSR Program contribute to the conduct of the workshop. Faculty offer their time to students preparing applications as mentors to review and provide input into draft application materials following the workshop.

Table 6 provides funding information for the 2011-2012 year. External Fellowships include support from external, merit based awards (i.e. the federal funding agencies and OGS). Supervisor Fellowships include Fellowship support in full or part from an HPME faculty member (not earned income). Students are not part of the funded cohort if they are either engaged in employment earning over $20,000 per year or are in a flex or part time program.

TABLE 6: Financial support for PhD-HCR students 2011-2012 year

	External Fellowships	Supervisor Fellowships	Department Support	Employed / Flex
MSc Y1	1	5	9	9
PhD Y1	0	3	3	4
PhD Y2	5	2	3	5
PhD Y3	2	1	1	6
PhD Y4	10	2	0	5

As indicated in the table, the percentage of HSR students with external financial support increases throughout the duration of enrolment in a doctoral program. As students identify supervisors and

develop their thesis proposal, their success at attracting external funding increases. For the current year, 60% of students in the fourth year of their doctoral program are being supported by an external, merit based award (such as CIHR). Masters students are unlikely to have external support during their program and, as such, are most likely to be supported by the Department.

QUALITY INDICATORS

Student Indicators

Table 7 provides information on the number of applications, offers and new registrations to the MSc-HSR and PhD programs from 2005-2006 to 2009- 2010. The PhD statistics include data from the CEHCR program; however, very few CEHCR students enter directly into a PhD program because their graduate degrees (health professional degrees) do not normally include a thesis. The table indicates a stable number of applications for both programs. The number of offers and new registrations indicate a steady intake of doctoral students and a significant increase in the number of admitted Masters students. Since 2007, efforts to increase graduate enrolment have led to a 65% increase in the number of students enrolled in the HSR Program.

The offer rate (number of offers compared to the number of applications) averages to 32% over the time period for the MSc program and 35% for the PhD program. The offer rate has increased in recent years for the MSc program as the number of offers has increased. The acceptance rate (number of new registrants to number of offers) remains fairly constant at 69% for the MSc program and 66% for the PhD program.

TABLE 7: Applications, offers and new registrations 2005-2006 to 2009- 2010

	2005-06	2006-07	2007-08	2008-09	2009-10
Research Master's degrees – M.Sc. - HSR					
Applications	50	50	66	60	60
Offers	10	7	24	28	26
New Registrants	7	4	20	20	17
Doctoral – HSR & CEHCR					
Applications	40	46	47	47	42
Offers	11	17	21	11	18
New Registrants	10	7	16	7	11

Data Source: ROSI Admission Statistics

Table 8 provides information on the number of students enrolled in the MSc- HSR program and the PhD program from 2005 to 2009. Again, the PhD program data includes CEHCR students. These numbers reflect the enrollment expansion of the MSc program and steadier enrolment of doctoral students.

TABLE 8: MSc HSR-PhD Enrollment Fall 2005- Fall 2009

Degree	Attendance Class	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
MSC-HSR	PT	6	6	5	10	10
	FT	16	10	20	29	33
PHD	FLEX	11	10	11	9	6
	FT	59	65	71	63	68

Data Source: Graduate Enrolment Cube, Fall 2006 to Fall 2010.

Table 9 provides information on the time to completion rates for the MSc-HSR and PhD programs. On average, students complete the MSc program within 18-24 months, which is slightly lower than the average for other life sciences MSc programs. The average time to completion rates for the PhD program is about 5 years, which is equivalent to other life sciences PhD programs and the University of Toronto average.

TABLE 9: Mean (range) and Median Times to Completion (TTC) of MSc-HSR and PhD- HSR & CECHR

	HPME					
	M.Sc.		Life Sciences		All UT	
Year of Graduation	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads
Research Master's degree - MSC - HSR (full-time)						
2003-04	2.00	4	2.52	281	1.78	1080
2004-05	1.11	3	2.49	267	1.79	1111
2005-06	1.33	3	2.48	318	1.77	1149
2006-07	1.93	5	2.34	299	1.73	1079
2007-08	--	--	2.45	297	1.68	1112
2008-09	2.00	3	2.39	293	1.60	1319
2009-10	1.94	11	2.36	352	1.67	1299
Doctoral - PhD (HCR & CEHCR) (full-time)						
2003-04	6.00	6	5.58	183	5.50	546
2004-05	5.19	12	5.68	214	5.49	648
2005-06	5.30	10	5.73	184	5.54	643
2006-07	5.36	12	5.75	202	5.53	636
2007-08	5.56	12	5.91	243	5.63	711
2008-09	6.07	10	5.91	240	5.67	697
2009-10	5.70	11	5.81	255	5.58	738

Data Source: ROSI, screen 4BEA (Years to Graduate).
Notes: Time-to-completion (TTC) calculations only include sessions in which students are registered. Sessions on leave or lapsed sessions are not part of the TTC values.

Table 10 and 11 provide information on the program progression rates of full time MSc-HSR students and PhD- HSR & CEHCR students. The table focusing on MSc-HSR students indicates the importance of the Transfer program for many HPME students. Because the nature of their graduate degree does not include a thesis, these students (who are interested in pursuing a PhD) must initially enroll in a master's program. The Table also indicates a withdrawal rate of about 10% with an ultimate completion/transfer rate after three years of over 90%. The withdrawal rate is higher for doctoral students. After 7 years (21 terms), about 20% of students have withdrawn. The completion rate at 7 years is over 60%, with another 20% still working to complete their doctoral studies. The University of Toronto has introduced new rules which require continuous enrolment and will limit the number of extensions that students may request. It is anticipated that this will ensure that all doctoral students will complete their studies within 7 years.

TABLE 10: Research Master's – MSc HSR (full-time)

		After 6 terms (2 years)				After 9 terms (3 years)			
Year	**New**	**TR**	**WD**	**CO**	**IP**	**TR**	**WD**	**CO**	**IP**
2001-02	3	0	0	2	1	0	0	3	0
2002-03	8	5	0	3	0	5	0	3	0
2003-04	7	1	1	3	2	1	2	4	0
2004-05	9	3	0	5	1	3	0	5	1
2005-06	5	1	1	2	1	2	1	2	0
2006-07	5	2	0	0	3	2	0	2	1
2007-08	14	3	1	6	4	3	2	8	1

	After 6 terms (2 years)				After 9 terms (3 years)			
	TR	**WD**	**CO**	**IP**	**TR**	**WD**	**CO**	**IP**
Averages:	29%	6%	41%	24%	31%	10%	53%	6%

Legend:
TR - transferred from master's to PhD
WD - permanent withdrawals and lapses (**attrition rate**)
CO - completed degree (**graduation rate**)
IP - in progress

TABLE 11: PhD- HSR & CEHCR (full-time)

Year	New	After 12 terms (4 years)			After 18 terms (6 years)			After 21 terms (7 years)		
		WD	CO	IP	WD	CO	IP	WD	CO	IP
1997-98	1	0	0	1	0	0	1	0	0	1
1998-99	1	0	0	1	1	0	0	1	0	0
1999-00	6	0	1	5	0	3	3	1	3	2
2000-01	11	2	0	9	3	5	3	3	7	1
2001-02	17	1	6	10	1	10	6	2	12	3
2002-03	9	0	4	5	0	6	3	0	6	3
2003-04	20	3	5	12	5	12	3	7	12	1
2004-05	18	2	4	12	5	9	4	x	x	x
2005-06	13	1	2	10	x	x	x	x	x	x

	After 12 terms			After 18 terms			After 21 terms		
	WD	CO	IP	WD	CO	IP	WD	CO	IP
Averages:	9%	23%	68%	18%	54%	28%	22%	62%	17%

Legend:
WD - Permanent withdrawals and lapses (**attrition rate**)
CO - Completed degree (**graduation rate**)
IP - In progress
x - Data not yet available

Course Evaluation

In terms of course evaluations, on a 5 point scale where 1 is excellent and 5 is poor, the MSc - HSR and PhD- HSR term evaluations for HPME offered courses by specialization are presented in Table 12.

TABLE 12: Course Evaluation-by Specialization

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Health Services Organization and Management					
Overall evaluation of the course	2.0	2.3	2.0	2.4	2.6
Appropriateness for course	1.9	2.2	1.7	2.2	2.4
Extent to which overall objectives were met	1.9	2.1	2.2	2.2	1.7
Enthusiasm for subject	1.7	2.0	1.8	2.2	2.0
Health Policy					
Overall evaluation of the course	2.1	2.7	2.6	2.3	2.7
Appropriateness for course	1.7	2.4	1.8	2.5	2.3
Extent to which overall objectives were met	1.9	2.5	2.8	2.3	2.0
Enthusiasm for subject	1.7	2.3	2.1	2.2	2.0
Health Services Outcomes & Evaluation					
Overall evaluation of the course	2.4	2.1	2.1	2.2	1.8

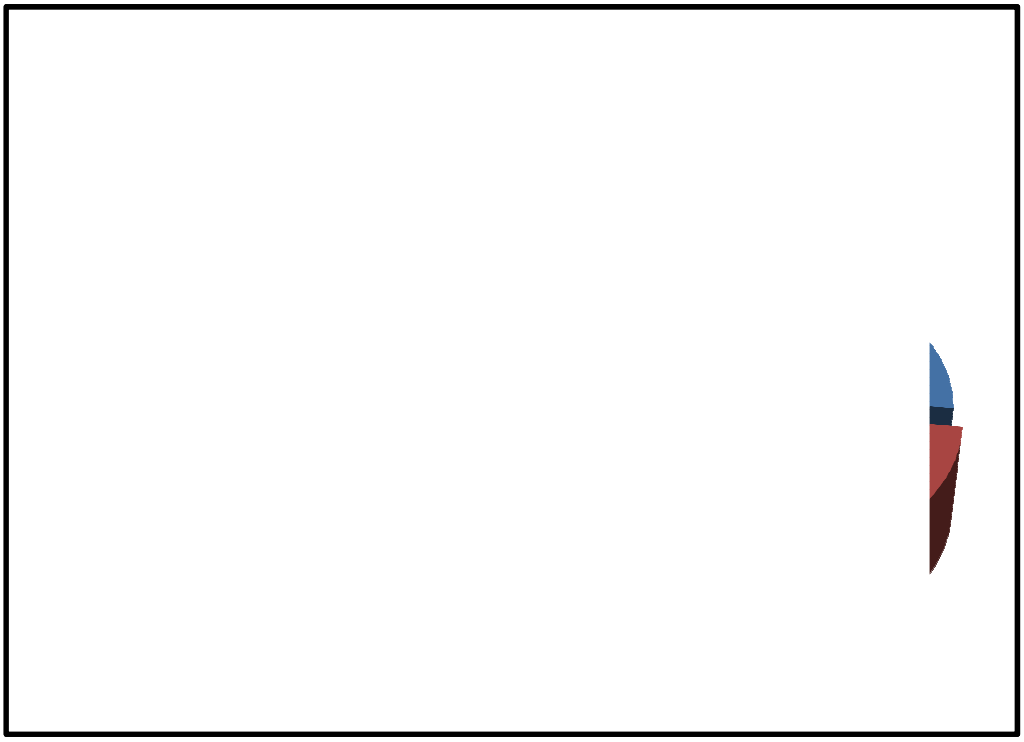
Appropriateness for course	1.9	2.0	1.9	2.4	2.4
Extent to which overall objectives were met	1.8	1.9	2.1	2.1	1.7
Enthusiasm for subject	1.6	1.9	1.8	2.1	1.9
E-Health Innovation and Information Management					
Overall evaluation of the course	2.1	2.4	2.6	2.5	2.6
Appropriateness for course	1.7	2.2	1.8	2.3	2.4
Extent to which overall objectives were met	1.9	2.1	2.8	2.5	1.7
Enthusiasm for subject	1.7	2.2	2.1	2.5	2.0
Health Economics					
Overall evaluation of the course	2.7	2.2	2.1	2.2	2.0
Appropriateness for course	2.1	2.3	1.8	2.1	2.3
Extent to which overall objectives were met	1.6	1.7	1.7	1.7	1.8
Enthusiasm for subject	1.8	1.7	1.4	1.7	1.6

*NOTE: Courses evaluated: Health Services Organization and Management (HAD5011H, HAD6760H, HAD5772H, HAD5773H), Health Policy (HAD5011H, HAD5772H, HAD5021H, HAD6760H, HAD6763H), Health Services Outcomes & Evaluation (HAD5011H, HAD5730H, HAD5772H, HAD6760H, HAD5763H, HAD5760H, HAD6761H), E-Health Innovation and Information Management (HAD5011H, HAD5772H, HAD6760H, HAD5726H, HAD6764H) Health Economics (HAD5011H, HAD5730H, HAD5760H, HAD5760H, HAD6760H, HAD5304, HAD5301H, HAD5307H)

As Table 12 indicates, HPME courses are consistently ranked as very good or excellent in terms of appropriateness, the extent the courses met objectives and the instructors' enthusiasm for the subject.

Graduate Indicators

A variety of measures are used to assess the quality of the research stream HSR programs and the preparedness of graduates to pursue careers consistent with the program mission. One important measure is job placement and career progression. Appendix 3.A.II.3. provides a summary of the current employment of recent HSR doctoral graduates. As indicated in the Appendix, all recent graduates are employed in research and/or educational settings. Chart 1 provides information on MSc-HSR program graduates from 2006. As indicated in the chart, MSc program graduates are working in teaching hospitals and government related organizations. Approximately 10% have moved into further education.



Student Satisfaction Indicators

Canadian Graduate and Professional Student Survey (CGPSS) conducts regular student satisfaction surveys and the results from 2010 for doctoral stream students can be found in the next section. As it can be seen, HPME research stream students report being very satisfied with their graduate experiences. Less than 2% of respondents rated their academic experiences as fair or poor (compared to 9% for the University of Toronto); over 70% of respondents rated their graduate program as either excellent or very good (compared to 66% for the University of Toronto); and less than 3% rated their overall experience at the University as fair or poor (compared to 12% for the University of Toronto). Close to 90% of respondents said that they "would recommend this university to somebody considering your program" and a similar percent rated the intellectual quality of the faculty as either excellent or very good.

CGPSS 2010 Results – Research Stream Students (MSc and PhD – HSR & CEHCR)

I. Survey Participants

HPME	Registered	Surveyed	%
Doctoral students	70	38	54%
Research Master's students	91	40	44%
Total	161	78	48%

II. Satisfaction with Program, Quality of Interaction, and Coursework

1. Please rate the following dimensions of your program:

	Excellent %		Very good %		Good %		Fair/Poor %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. The intellectual quality of the faculty	47.4	56.1	46.2	33.5	5.1	8.1	1.3	2.3
2. The intellectual quality of my fellow students	30.8	33.0	46.2	44.4	21.8	16.8	1.3	5.8
3. The relationship between faculty and graduate students	17.9	21.5	42.3	36.0	29.5	26.3	10.3	16.2
4. Overall quality of graduate level teaching by faculty	15.4	19.8	42.3	39.5	38.5	27.2	3.8	13.4
5. Quality of academic advising and guidance	20.0	17.7	29.3	30.6	32.0	27.5	18.7	24.1
6. Helpfulness of staff members in my program	29.9	29.6	29.9	34.2	32.5	22.6	7.8	13.5

2. Please rate the following dimensions of your program

	Excellent %		Very Good %		Good %		Fair/Poor %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. Relationship of program content to my research/ professional goals	22.1	18.2	41.6	33.5	27.3	29.0	9.1	19.2
2. Opportunities for student collaboration or teamwork	15.4	16.2	34.6	26.7	26.9	29.2	23.1	27.8
3. Opportunities to take coursework outside my own department	11.8	19.3	31.6	29.8	31.6	29.2	25.0	21.6
4. Opportunities to engage in interdisciplinary work	18.4	19.5	30.3	28.1	28.9	27.9	22.4	24.4
5. Amount of coursework	6.4	12.1	28.2	32.2	46.2	41.3	19.2	14.3

3. General Satisfaction

	Definitely %		Probably %		Maybe %		Probably/ Definitely Not %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. If you were to start your graduate/professional career again, would you select this same university?	47.4	40.3	39.7	37.5	11.5	13.3	1.3	8.9
2. If you were to start your graduate/professional career again, would you select the same field of study?	53.8	49.4	26.9	30.2	12.8	13.5	6.4	6.9
3. Would you recommend this university to someone considering your program?	61.5	51.1	28.2	29.3	7.7	12.1	2.6	7.5
4. Would you recommend this university to someone in another field?	44.9	31.9	33.3	35.7	20.5	27.5	1.3	4.9

III. Program/Department Support

Note: Results in this section include only those respondents who answered "yes" to the question, "Does your program include a thesis, dissertation or research paper?"

1. Research Experience

Participation in the following areas:	Yes %		No%		N/A%	
	HPME	U of T	HPME	U of T	HPME	U of T
1. Conducting independent research since starting your graduate program	97.1	95.3	0.0	1.9	2.9	2.8
2. Training in research methods before beginning your own research	94.3	92.7	0.0	3.3	5.7	4.1
3. Faculty guidance in formulating a research topic	100.0	97.1	0.0	1.1	0.0	1.8
4. Research collaboration with one or more faculty members	90.0	82.5	1.4	8.1	8.6	9.3
5. Collaboration with faculty in writing grant proposals	71.4	58.6	10.0	22.6	18.6	18.8
6. Attended national scholarly meetings	70.6	73.1	29.4	26.9		
7. Delivered papers or presented a poster at national scholarly meetings	73.8	71.6	26.2	28.4		
8. Co-authored in refereed journals with your program faculty	69.4	58.2	30.6	41.8		
9. Published as sole or first author in a refereed journal	n/a	55.1	n/a	44.9		

* Notes:
1. The response rates for Q6 and Q8 ranged from 21% to 22%; these results should be interpreted with caution due to the reduced sample size.
2. Data are not reported for Q9 due to low response rate.

1. For each of the following statements, indicate the extent that it describes the behaviour of your dissertation advisor (Doctoral students only)

My dissertation advisor:	Strongly agree %		Agree %		Disagree %		Strongly disagree %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. Was knowledgeable about formal degree requirements	39.4	45.3	48.5	44.4	12.1	8.5	0.0	1.8
2. Served as my advocate when necessary	62.5	53.3	31.3	39.8	6.3	5.1	0.0	1.7
3. Gave me constructive feedback on my work	50.0	52.3	41.2	39.7	8.8	5.8	0.0	2.2
4. Returned my work promptly	60.6	48.3	33.3	36.5	6.1	11.0	0.0	4.2
5. Promoted my professional development	63.3	48.7	23.3	38.7	6.7	9.6	6.7	3.0
6. Overall, performed the role well	57.6	51.7	39.4	37.5	3.0	8.0	0.0	2.8

3. For each of the following statements, indicate the extent that it describes the behaviour of your dissertation advisor (Doctoral students only)

	Strongly agree %		Agree %		Disagree %		Strongly disagree %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. Was very helpful to me in preparing for written qualifying exams	25.0	41.6	50.0	40.2	12.5	12.9	12.5	5.4
2. Was very helpful to me in preparing for the oral qualifying exam	46.7	39.7	40.0	42.0	6.7	13.5	6.7	4.7
3. Was very helpful to me in selecting a dissertation topic	36.4	40.7	39.4	42.1	18.2	12.7	6.1	4.5
4. Was very helpful to me in writing a dissertation prospectus or proposal	50.0	40.4	38.5	42.5	7.7	12.6	3.8	4.4
5. Was very helpful to me in writing the dissertation	n/a	41.5	n/a	40.7	n/a	13.3	n/a	4.5

* Notes:
1. The response rates for Q1 and Q2 ranged from 21% to 23%; these results should be interpreted with caution due to the reduced sample size.
2. Data are not reported for Q5 due to low response rate.

IV. General Assessment

1. Rate the extent to which the following factors are an obstacle to your academic progress. Respondents who rate the factors "a major obstacle" to their academic progress

	%
Work/financial commitments	28.8
Family obligations	11.0
Availability of faculty	9.7
Program structure or requirements	8.3
Course scheduling	2.8
Immigration law/regulations	0.0

2. Overall, how would you rate the quality of

	Excellent %		Very good %		Good %		Fair/Poor %	
	HPME	UofT	HPME	UofT	HPME	UofT	HPME	UofT
1. Your academic experience at this university?	32.9	33.6	39.7	39.2	26.0	18.4	1.4	8.8
2. Your student life experience at this university?	9.7	16.7	22.2	30.2	52.8	32.2	15.3	21.0
3. Your graduate program at this university?	28.8	30.4	42.5	35.7	20.5	21.7	8.2	12.1
4. Your overall experience at this university?	22.2	25.2	45.8	38.5	29.2	24.6	2.8	11.8

QUALITY ENHANCEMENT

Since 2007, the HSR Program Director has led a quality improvement initiative, orchestrated through a Department-wide committee, relating to continuously improving the HSR Program. The initiative was motivated and informed by the HSR competencies work completed elsewhere (e.g., Morgan et al., 2010; Forrest et al., 2009) and by both the Program review work undertaken by Dr. Gail Donner and the Department's most recent strategic planning cycle (resulting in HPME's 2007-2012 Strategic Plan). The entire curriculum for the HSR Program, across all existing and new concentrations, has been subjected to a review in the interests of aligning program activities across the concentrations, and improving known areas of weakness (i.e., strengthen the intermediate statistics course, enhance the theoretical content in some of the concentrations). The review has led to a number of significant revisions to the program:

- revival of the *Health Services Research Seminar Series*, which engages researchers with national and international stature to discuss work related to specific annual themes (2011 primary care; 2010 e-health; 2009 patient safety; 2008 knowledge translation)
- clarification across concentrations regarding course trajectories
- ongoing information sessions for current students on topics such as funding, proposal defence and final oral examination processes
- introduction of information sessions for new (and ongoing) graduate supervisors
- the addition of extra sessions to HAD 5011 for HSR students, as a method of introducing additional health policy theory to thesis based students
- continued refinement of HAD 5772 (the statistics requirement) by the recruitment of a new course instructor and the addition of lab-tutorials
- development of 8 new courses (shown below) over the self-study interval, a number of these in response to gaps in the curriculum identified through the HSR Program Curriculum Review.

Course Code	Course Title	Application to Concentrations R-required; E-elective
HAD7001H-S4*	Intro. to Health Services Research Theory & Methods 2	R - All
HAD5021H	Advanced Health Policy Analysis	R – Health Policy
HAD7001H	Design Evaluation	E – All
HAD7001H	Intermediate Qualitative Research Methods	E – All
HAD7001H-S3	Health Econometrics I	R – Health Economics
PHM7001H	Health Econometrics II	R – Health Economics
HAD7001H-S2	Ideas and Arguments in Health Policy	E – All
HAD5727H	Tools for Implementation of Best Evidence	E – All

- redevelopment and extension of the health services research methods course to a full-year course where all doctoral students (all concentrations) are exposed to the dominant paradigms, theories and methods applied in each of the concentrations represented in the HSR Program

- establishment of Health Economics as a discrete concentration in the HSR Program

- development of additional strength in the area of qualitative research including a new intermediate level methods course

- early work provides an introductory mixed methods course for health services researchers

- redevelopment of the Comprehensive Exam course content for the Outcomes & Evaluation concentration, and

- early work to address the need for theoretical content within the course curriculum for the eHealth concentration

A number of key challenges facing the Department will also impact the HSR Program. Enrollment expansion continues to increase the student to faculty ratio, at a time when the ratio at the University of Toronto is already amongst the highest compared to AAU peer universities (2003). Access to supervisors has not been an issue in HPME, but graduate enrolment expansion has added additional pressure on access to courses. While the University claims that students can access all courses, in practice this has not been the case. Students often find it difficult to access courses in other Departments. While increased graduate enrolment in the doctoral stream amounts to an expansion of the University's research enterprise, significant and parallel increases in research funding for students and faculty researchers from federal and provincial peer reviewed funding bodies has not been seen. The ability to fund students either through faculty sponsored Fellowships or merit based awards is very much tied to federal and provincial policies, which currently do not appear to be supporting expanded support for research.

III. Health Technology Assessment & Management (MSc)

PROGRAM DESCRIPTION

The Department of Health Policy, Management & Evaluation offers a graduate research program leading to the degree of Master of Science (MSc). Within this program there is the opportunity to undertake the MSc with a concentration in Health Technology Assessment & Management. Health Technology Assessment and Management (HTA&M) is an applied, international, policy-oriented field of research that examines the clinical, economic, ethical, legal and social implications of the diffusion and use of specific procedures, services or techniques in health care. A significant challenge is to manage technological change in health care through the implementation of HTA findings. This concentration combines the skill sets of health technology assessment and health management and policy development.

The concentration in HTA&M at the University of Toronto offers a multicultural and focused exposure to the principles, methods and impacts of HTA&M. The degree is offered within the fixed modular framework of the international Ulysses program in HTA&M (www.ulyssesprogram.net). The intensive teaching format is based on four two-week teaching modules held in different cities (Montreal, Toronto, Rome, and Barcelona). During each two week period, two courses are taught with each course representing 40 hours (one week) of on-site teaching and practice.

The program's intensive modular format adapts to the needs, skills, and expectations of health professionals, managers and executives who work full-time or those of graduate students who wish to concentrate on a master's degree on a full-time basis. The language of instruction is English. This MSc runs on a structured two-year cycle. During the two-year period, in addition to completing eight courses, students will conduct a thesis under the supervision of a HPME faculty member, at the university, at a University of Toronto teaching hospital or research institute, or at an HTA&M health care agency.

Students are part of an international cohort of a maximum of 25 students. The international cohort reinforces interactions between users and producers of HTA during training. It also gives students an opportunity to examine different perspectives. Students enrolled at the University of Toronto maintain cohesion with fellow HPME students through participation in HPME Orientation activities, attendance at HPME seminars, and participation in the annual HPME Research Day activities.

HTA&M students also engage closely with the broader University of Toronto HTA community through active participation in THETA, the Toronto Health Economics and Technology Assessment collaborative. THETA offers weekly rounds with world experts in various aspects of HTA, methods working groups, an annual research retreat and a forum for informal interaction with other students and faculty involved in HTA in multiple departments, schools and faculties, including Medicine, Pharmacy, Dentistry, Nursing, and Engineering.

ULYSSES PROGRAM INFORMATION

The Ulysses program started in 2001 with a consortium of five Universities (Université de Montreal, University of Ottawa, McGill University, University of Barcelona and Universita Cattolica del Sacro Cuore in Rome) and five international HTA agencies (AETMIS, ICES, CAHTA, Agenzia Lazio Italy ASP and Health agency ASSR Italy). The University of Toronto formally joined in 2007. Since inception of the Ulysses program, five cohorts of students have completed the program, including two cohorts with students enrolled at the University of Toronto (five UofT students in the 2007-2009 cohort and two UofT students in the 2009-2011 cohort). HPME has three students enrolled in the sixth cohort, commencing September 2011. Previous cohorts have enrolled students from Canada, Italy, Spain, Colombia, Argentina, Switzerland, Germany, Hong Kong, Iran, United Arab Emirates, Turkey, Latvia, Ukraine, Mexico, Great Britain and Brazil. Ulysses students include physicians and other health care providers, engineers, health economists, administrators and government and health agency analysts and policy-makers.

PROGRAM OBJECTIVES

A primary program objective is to meet the growing demand for individuals skilled in HTA&M from both evidence producer and evidence user perspectives. Such individuals are needed to generate and synthesize high quality evidence on the clinical, social, ethical, cost-effectiveness and economic impact of emerging healthcare technologies, as well as to use existing evidence to make informed policy choices.

This program is unique among Canadian universities in its pedagogical structure and its ability to train individuals who are currently working in the field of HTA in a government or health care agency or who wish to apply an HTA focus to their clinical or research careers. The HTA&M program aims to create an unparalleled international learning experience that is educational, challenging, stimulating and productive.

This program teaches students to:

- evaluate the clinical, social, ethical, cost-effectiveness and economic impact of emerging healthcare technologies,
- assess the scope and quality of existing evidence,
- synthesize the best quality evidence using technical methods including meta-analysis and decision analysis modeling,
- provide information to enable informed, evidence-based resource allocation decisions to promote efficiency and equity in the health care system.

ADMISSION REQUIREMENTS

Students are admitted to the program every two years. The next admission will be for the program commencing in September 2013.

Successful applicants have an excellent record of scholarship and an aptitude for health services research. MSc applicants should have graduated from a 4-year undergraduate program with at least a B+ standing in the last two years of study. Students should have some professional work experience. As part of the application process, two confidential letters of reference are to be submitted that indicate to the admissions committee the applicant's preparation and competence to learn HTA and conduct research.

Applicants are requested to provide a statement of intent that includes an outline of their research interests, a statement of their interest in health technology assessment, and a description of the specific areas of research they would like to pursue. Students are expected to have a keen

understanding of HTA and its value to the health care system. Ideal candidates are those with a career interest in HTA, including those currently employed in a health care agency, at a health care institution or with a health care product manufacturer. Individual candidates include health administrators, health providers, scientists, ethicists, lawyers, managers, biomedical engineers, social scientists and policy makers.

The Program Director meets with all interested applicants to help determine the best MSc program in HPME for the student's needs and aspirations.

CURRICULUM AND PROGRAM DELIVERY

The overall structure of the two-year program consists of 8 courses with a 1-week modular format per course and 2 courses per module. Modules are taught twice per year, in mid- October and mid-May. Opportunities for e-learning, including e-debates and blogs occur in between modules. The research thesis is pursued over the two-year period.

Module I, Montreal, October	Module II, Toronto, May
1: Principles and practice of HTA 2:Clinical decision-making	3: Systematic reviews 4: Economic evaluation
Module III, Rome, October	**Module IV, Barcelona, May**
5: Management of health organizations 6: Ethical & social issues and dissemination	7: Health policy analysis 8: Student project presentations

The two-year program requires successful completion of six fixed format modular credit courses offered at international locations, participation in two non-credit seminar courses offered at international locations, and completion of a research thesis of acceptable quality and its oral defense.

The required modular courses are taught by international faculty members of the Ulysses consortium of universities and HTA agencies. To be eligible for the program, University of Toronto students must have knowledge of the Canadian health care system and good research and quantitative skills. Students whose preparation is insufficient in these areas may be required to take additional courses.

Thesis research on a topic related to HTA must be supervised by a faculty member who has an appointment (either primary or cross-appointment) in HPME. The thesis must be completed under the supervision of a thesis committee (supervisor and at least one additional member) and must be defended before an examination committee appointed by the Department of Health Policy, Management and Evaluation, according to the School of Graduate Studies' guidelines.

Students meet annually with their supervisor and the Program Director to review the students' progress and to plan course work and other activities for the next year. Degree requirements should be completed within two years. All of the requirements of the program must be fulfilled in English.

Students must declare their intentions to study either full- or part-time at the beginning of their program, and cannot switch their status mid-way during their program. Full-time and part-time students have up to five years to successfully complete the requirements of the degree.

- **Module 1- Université de Montréal, Département d'administration de la santé**

  ***Course 1**: Health Technology Assessment: Principles and Practice*

  Description: This seminar course introduces the student to the principle concepts, analytical tools and current practices in health technology assessment. Key case studies illustrate the contents.

  Pedagogical objectives: At the end of this course, students will be able: 1) to understand and use the principal concepts and vocabulary of a HTA; 2) to acquire an overall vision of the purpose of HTA and the use of methods from a multidisciplinary perspective; and 3) to gain a critical perspective on the role of HTA in decision-making by means of illustrative examples. This is a required, non credit course.

  ***Course 2**: Clinical Decision Making*

  Description: This course reviews basic concepts related to biostatistics and clinical epidemiology and introduces the major elements of health care decision making. The course provides a basic understanding of the methods used to develop/produce decision rules, decision analyses, patient decision aids, and practice guidelines.

  Pedagogical objectives: At the end of this course, students will be able: 1) to understand the principles of clinical epidemiology and diverse study designs, 2) to understand the principles of some of the more prevalent technologies involved in health care decision making, and 3) to critically evaluate the quality of clinical practice-oriented systematic reviews, decision rules, and practice guidelines.

- **Module 2- University of Toronto, Department of Health Policy, Management & Evaluation**

  ***Course 3**: Principles and Practices in Systematic Reviews and Health Technology Assessment*

  Description: The aim of this course is to introduce the student to systematic review methodology and the role that systematic reviews play in the decision-making process within HTA. It introduces the student to the principles of evidenced based health-care, systematic review methodology and its use for policy recommendations.

  Pedagogical objectives: At the end of this course, students will be able to locate and use various tools designed to assist in the critical appraisal of various study designs; to develop a protocol for a systematic review including how to formulate a review question, develop a search strategy to retrieve the literature, critically appraise the identified literature, extract the data, and synthesize and graphically display the data; to understand the basic statistics used in cohort studies, randomized controlled studies and meta-analyses; to understand the purpose of systematic reviews in HTA; and, to discuss the role of systematic reviews and HTA in decision-making by health care practitioners, professional organizations and policy makers.

***Course 4**: Economic Evaluation*

Description: This course aims at introducing the student to the principles of economic analysis of health care interventions and their role in health care decision making.

Pedagogical objectives: At the end of this course, students will be able: 1) to understand the principles and practices of economic analysis in health care; 2) to understand the role of economic analysis in health care policy making; 3) to be able to critically evaluate the quality of published economic analyses; and 4) to be able to assist in the conduct of economic analysis.

- **Module 3- Università Cattolica del Sacro Cuore, Policlinico Universitario Agostino Gemelli, Rome**

***Course 5**: Institutional Management and Impact Evaluation*

Description: The objectives of the course are to identify the main features of management and performance evaluation for health care organization, and to provide participants with a general overview of the main methods and instruments to evaluate health sector activities. The course places a particular emphasis on planning, coordination and surveillance activities in health care organizations.

Pedagogical objectives: At the end of the course students will be able to: 1) understand the main concepts of health care management; 2) understand the main concepts of activities related to health services evaluation, and 3) assess the performance of health care organizations.

***Course 6**: Ethical, Sociocultural and Legal Issues*

Description: This course is aimed at defining how ethical, sociocultural and legal issues influence, and can be integrated into, evaluation-based decision- and policy making in health care. Students will also learn how to disseminate HTA findings to targeted audiences. Basic concepts, analytical tools and methodological procedures are presented and illustrated with examples and hands-on exercises.

Pedagogical objectives: At the end of this course, students will be able: 1) to define the ethical, sociocultural and legal dimensions of health technology; 2) to analyse these dimensions in relation to a given technology; 3) to discuss strengths and weaknesses of such an analysis; 4) to devise a communication plan for a given technology; and 5) to clarify the potential paths of influence from HTA to decision-making and clinical practice.

- **Module 4 - Universitat de Barcelona, Facultat de Medicina**

***Course 7**: Health Systems, Economics of Health Care, Equity, HTA and Policy-making*

Description: This course aims to introduce the student to health policy analysis and its role in health technology assessment and management. The course examines the context in which decisions are taken, the various constraints faced by decision makers and the policy instruments and strategies implemented.

Pedagogical objectives: At the end of the course, students will be able: (1) to understand the main concepts of health policy analysis and their relevance to HTA; (2) to gain a comparative vision of health systems models and practices; and (3) to discuss similarities and differences among countries in terms of context, values and health system challenges.

***Course 8**: Presentations of Research / Policy Analysis Projects*

Description: The aim of this seminar course is to synthesize the key themes taught during the ULYSSES Master's Program, and to ensure that students have gained a clear vision of the purpose and methods of HTA. During the course, each student will present his/her personal project (thesis or bibliographic essay), respond to questions, criticisms and comments made by faculty and peers, and participate in the constructive critique of other students' presentations. Attendance throughout the week is mandatory.

Pedagogical Objectives: At the end of this course students will be able: 1) to communicate a clear vision of the purpose of HTA and the use of methods from a multidisciplinary perspective as applied to their own project; 2) to formulate a cogent rationale about why and how their particular project should contribute to decision-making and clinical practice; and 3) to discuss the strengths and limitations of different types of HTA projects. This is a required, non-credit course.

ASSESSMENT OF LEARNING

The pedagogical principles are that each course is under the leadership of one or two faculty members, combining Canadian and European perspectives. Courses take an interactive approach in which students' contributions play a significant role. Each course involves didactic lectures combined with hands-on group and individual exercises as well as a final assignment worth 60-70% of the grade.

STUDENT AWARDS

There are a large number of awards available to students enrolled at the UofT, with information available to students on the University's Website (http://www.adm.utoronto.ca/adm-awards/html/awards/mainawdpage.htm). Specific HPME awards for which students in the MSc Health Technology Assessment & Management program are eligible include the following:

- **Thomas and Edna Naylor Memorial Award**
  Awarded on the basis of best paper from thesis in the fields of HSR and CEHCR
  Amount: $1000.00

- **HPME Research Day Poster Awards – MSc HSR**
  Awarded to the best and second best poster for students enrolled in the MSc HSR program
  Amount: Best Poster $150.00, Second Best Poster $100.00

- **HPME Research Day Poster Awards – PhD HSR**
  Awarded to the best and second best poster for students enrolled in the PhD HSR program
  Amount: Best poster $150.00, Second Best Poster $100.00

- **Maureen Dixon Award**
  Awarded to the best poster in Community Care
  Amount: $500.00

- **Robert Duff Barron Award**
  Awarded to the best poster related to health policy or public health policy
  Amount: $500.00

- **Best Oral Presentation at Research Day**
  Awarded to the best oral presentation at annual Research Day
  Amount: $150.00

STUDENT FUNDING

Eligibility for internal or external financial support will depend on the student's employment status and will follow the guidelines of the funding source. Limited financial support to offset costs associated with attendance at modules may be available from the consortium.

QUALITY ENHANCEMENT

HTA&M is a rapidly changing field in terms of the knowledge base, the development and application of methodology and with regard to the health policy climate which dictates how health care evidence is used in decision-making.

HTA is gradually becoming more integrated in health care systems globally, at the levels of health care institutions, regional health planning authorities, provincial ministries and national agencies responsible for making adoption recommendations. As such, the structure of the program, the courses offered and the course syllabi are reviewed annually by an international advisory committee of which the University of Toronto is a vital member.

Subsequent to a strategic planning retreat which took place in May 2010, the program for 2011-2013 has been significantly changed and enhanced. Major changes include moving the Toronto module from the fourth to the second module. The Systematic Review course, taught by University of Toronto faculty, was previously taught in the first module in Montreal in October. This course will now be taught in the subsequent May, in Toronto, providing students with an additional 7 months to acquire stronger quantitative skills, including basic biostatistics and clinical epidemiology. The economic evaluation course, also taught mostly by University of Toronto faculty, was previously taught in Barcelona and will now be taught in Toronto. The second course is being completely revamped to include a review of basic quantitative skills. In addition, there will be a concentrated effort to determine each student's background and learning needs that must be fulfilled prior to or during the program to enable them to succeed in each course.

Whereas University of Toronto faculty were previously responsible for or took on the bulk of teaching for four of the eight courses, going forward, this will be reduced to a more equitable load of 2-3 courses. Moreover, allowing the courses taught by University of Toronto faculty to be taught in Toronto will greatly reduce costs of the program.

Because of the international nature of the program, acquiring funds to cover faculty travel has been an ongoing challenge, somewhat reduced by the repatriation of the Toronto-led courses. At the time of application, students are informed that there are no guaranteed funds available to cover their travel costs to attend modules. Despite this, the Director has been successful in securing 90-100% of travel costs for needy students, i.e. those students whose employers were not covering travel costs or who were not employed. These funds, as well as funds to cover faculty travel, came from earmarked line items from a research grant awarded to the Director or came from Toronto Health Economics and Technology Collaborative (THETA). In addition, as the majority of HTA&M students are full or part-time employed, they have not been eligible for HPME stipend funding or external awards.

In addition to ongoing funding challenges, this program faces increasing competition from other similar international MSc programs. So far the international HTA&M program has remained unique in its modular structure and its consequent ability to attract top candidates who are working full- or part-time. To date, offers of admission have been made to 20-30% of applicants, with 75-100% of students accepting these offers. The University of Toronto has been able to contribute only a small number of students, approximately 2-5, to each cohort of 20. It is not known how well this will be sustained with the advent of the new health economics and HTA stream for MSc and PhD students being offered on campus.

Another challenge relates to local recognition of the contribution of the Toronto faculty. As an international program, much of the teaching performed by Toronto faculty has been somewhat invisible to other members of HPME. For example, several of the courses traditionally taught on campus, including HAD 5730 (Health Economics) and HAD 5308 (Systematic Reviews) are repackaged in a complete modular format for this program. Some of the same faculty also teach these full courses in the conventional format on campus, thus doubling their teaching load. As another example, for the previous course 7 (Clinical Decision-making), there were no fewer than ten HPME faculty who guest lectured for this highly successful course. In 2011, this invisibility was compounded by the fact that due to the modular nature of the courses, no U of T classrooms were available for teaching these courses on campus. A conference room in a local teaching hospital had to be found.

B. PROFESSIONAL DEGREE PROGRAMS

I. Health Administration (MHSc)

PROGRAM DESCRIPTION

The University of Toronto has 63 years of experience in the development and delivery of professional graduate education in health administration. From 1948 to 1978, a graduate diploma in hospital administration was offered, and in 1979, the Master of Health Science degree was created.

The mission of the MHSc Health Administration Program is to prepare high potential students to lead in complex and dynamic health services environments. Drawing on the best evidence in management and health policy, this comprehensive, modular program uses team and problem-based learning to develop critical health leadership competencies. The Program attracts mid-career managers and outstanding early-career candidates from a wide range of backgrounds; provides them with the knowledge and skills needed by senior health services managers and policy makers; and responds to the demands of an ever-changing field of practice.

The multi-disciplinary curriculum focuses on the unique needs of the health services sector, and strives to maintain a balance between scholarly knowledge and professional expertise. All courses, and the curriculum, overall, have clearly articulated learning objectives that in combination provide students with the knowledge and competencies viewed to be critical to leadership roles in health management and policy. Curriculum criteria from the Accrediting Commission on Health Services Administration and the professional competencies of the National Centre for Healthcare Leadership are used as guidelines in the ongoing development of the curriculum, as is preceptor/employer, alumni and student feedback. Graduate employment positions are consistent with the Program's goals and objectives.

The Program is offered in a modular format that concentrates class time into Wednesday evening, all day Thursday, Friday and Saturday, five times per semester. A key feature and major advantage of the Program is that participants need not interrupt their careers in order to pursue the degree, yet are able to complete all requirements of the Program within two academic years.

Students in the MHSc Health Administration program come from a wide diversity of backgrounds that are reflective of the health sector itself. The Program's focus on small group and problem-based learning provides a highly interactive learning environment that allows students to hone their leadership competencies and benefit from each other's experiences through challenging group discussion. Graduates have indicated through program evaluations that they consider this a major strength. The ability to work in interdisciplinary teams is a critical leadership skill for health services managers and policy makers, and is of increasing importance in promotional opportunities.

The majority of courses offered in the MHSc Health Administration program are taught by core, tenure-stream faculty within the Department of HPME. Adjunct faculty, who are selected for their specific expertise, teach a few highly specialized courses such as health law and marketing.

The curriculum also provides many opportunities for students to network with and learn from senior level health service executives across the health sector. They are exposed through classes, seminars and field experiences to leading edge practitioners and health services organizations. Graduates have identified this as an essential characteristic of their studies, and key to helping them obtain promotional opportunities and/or develop new career paths. An active alumni association, the Society of Graduates in Health Policy, Management and Evaluation, also supports the Program.

PROGRAM GOALS AND OBJECTIVES

The Program is part of the University of Toronto, whose mission states:

> The University of Toronto is committed to being an internationally significant research university, with undergraduate, graduate and professional programs of excellent quality.

The University mission statement, which articulates the organizational commitment to innovation and excellence in education, research, and service, provides a context for the Program's mission. The Program, through the Department of HPME, participates in the five-year strategic visioning and academic planning cycles of the University and the Faculty of Medicine, so its mission is continually aligned with those of its university and parent faculty.

Within the University of Toronto, the Program is situated in the Department of HPME, Faculty of Medicine. The Department's mission and its academic plan provide the framework for maintaining program innovation and excellence, and enhance the infrastructure from which it draws its resources. For example, Strategic Direction 3, which speaks to *recruiting the best students and meeting changing learner needs,* was the impetus for a curriculum review and planning exercise. The goal was to identify the critical attributes of professional graduate programs that attract the "best" students, and make the required program changes to achieve this direction. As part of the exercise, the program is developing a performance scorecard to help track progress towards its goals and objectives (Strategic Direction 5).

➢ TEACHING AND LEARNING

Goal 1: To prepare students to assume leadership roles in health management and policy

- Objective 1: To ensure students have the requisite knowledge, competencies, and attitudes through the application of a leadership competency model within the curriculum.
- Objective 2: To integrate global best-practices and evidence into the classroom experience
- Objective 3: To provide a stimulating and challenging classroom environment that integrates perspectives from across the health care continuum

Goal 2: To enable students to pursue full-time graduate studies without interrupting their careers.

- Objective 1: To offer a program that can be completed within two academic years by students maintaining full-time employment

Goal 3: To prepare students to be life-long learners

- Objective1: To ensure that students are aware of their values, attitudes, strengths and areas for development

Goal 4: To continually review and assess program quality and outcomes in accordance with the program's mission

- Objective 1: Ensure an ongoing evaluation process that systematically evaluates the program's curriculum, teaching methods and outcomes

➢ RECRUITMENT AND CAREER DEVELOPMENT

Goal 1: To recruit a diverse class of high potential leaders from across the health care sector

- Objective 1: Increase the program's visibility across the province and nationally
- Objective 2: Develop marketing strategies that differentiate the program through quality, structure, learning methods , and scope

Goal 2: To facilitate program graduate placement and/or career progression through career planning and development activities

- Objective 1: Incorporate career planning and development activities into the program's curriculum

➢ LEARNING TECHNOLOGIES

Goal 1: To identify and integrate current and emerging learning technologies that enhance the teaching and learning experiences of the program

- Objective 1: To explore best practices in using learning technologies to support learning and teaching activities and
- Objective 2: To effectively implement and integrate these technologies into the learning and teaching activities of the program consistent with available resources

ADMISSION REQUIREMENTS

The MHSc Health Administration Program emphasizes attracting two primary groups:

- Mid-career managers from a wide range of backgrounds who wish to enhance their knowledge and leadership skills
- Excellent early-career candidates who normally have a minimum of three years relevant health care and/or work experience

The applicants come from a broad range of organizations and professional groups. Included are hospitals (acute care, rehabilitation, complex continuing care, and other specialty), long-term care providers, community agencies, consulting firms, government and government-related agencies, research institutions, and health industries, physicians, nurses, social workers, rehabilitation professionals, pharmacists, accountants, and engineers. Some applicants have management experience at the entry level, and others are senior leaders.

The program seeks out applicants with high intellectual capacity, as demonstrated by previous academic ability, as well as strong leadership potential. The latter is measured through work experience, references, and an interview process that focuses on the following critical leadership competencies: team skills, collaboration, interpersonal understanding, critical/innovative thinking, communication skills as well as an overall impression of the candidate's intellectual ability, work experience and leadership potential.

Applicants to the program normally require:

- A B+ average or higher in each of the last two years of an appropriate four-year University of Toronto bachelor's degree, or its equivalent from a recognized university. Candidates are strongly advised to have some prior preparation in quantitative courses such as statistics, accounting and economics.

- A minimum of 3 years full- time relevant clinical or managerial work experience

- References - The Program values the perceptions of individuals who can speak to the applicant's leadership potential in a work setting (colleagues, supervisors, senior leaders, etc.)

- Motivation - Faculty place a high premium on candidates who have strong motivation and can ensure ongoing commitment throughout the Program. Motivation is evaluated through an applicant's letter of intent and through the admissions interview process

While all four criteria are assessed, it is the overall impression of a candidate's strengths and suitability that will determine admission.

CURRICULUM AND PROGRAM DELIVERY

The Program curriculum is structured to give students the knowledge, competencies and attitudes health care leaders need today and in the future. All courses, and the Program as a whole, have clearly articulated learning objectives based on the knowledge, competencies and attitudes viewed as critical to meeting the Program mission. The curriculum is organized around the National Centre for Healthcare Leadership Competency Model, and the accreditation standards of the Commission on the Accreditation of Health care Management Education (CAHME). The curriculum is also organized around Bloom's taxonomy of learning objectives with a progression to higher order knowledge, skills, and abilities being required of students as they move through the program. Ongoing feedback from key stakeholders such as the MHSc External Advisory Committee, preceptors, alumni, and students provide a critical source of information for curriculum development and renewal.

The Program's teaching philosophy is rooted in the principles of adult and problem-based learning. This pedagogical approach involves participants in active, collaborative, and student-centered learning that facilitates competency development and life-long learning abilities. Students come to class prepared to work in small groups to enhance their understanding of theoretical concepts and the practical application of those concepts to health services. Because students work full-time and are geographically dispersed, all face-to-face group work occurs while students are on campus. When students are off campus, small group work is facilitated by BlackBoard, the Program's on-line course management system, which provides access to collaborative web-based tools such as bulletin boards and chat rooms. Each small group has its own private group work space on BlackBoard.

The Program's modular format concentrates class time into a Wednesday evening, Thursday, Friday, and Saturday, five times in a four-month term defined as a block that, for the most part, is concurrent with the traditional academic term. Requirements for in-class hours do not differ substantially from those of the traditional graduate courses offered at the University of Toronto.

Starting in September each year, the MHSc Program comprises five consecutive blocks:

Blocks	Course Number	Title	Required
FALL 1	HAD5010H	Canada's Health System and Health Policy: Part 1	Req.
	HAD5711H	Theory and Practice of Strategic Planning and Management in Health Service Organizations	Req.
	HAD5713H	Introduction to Health Information Systems	Req.
	HAD5724H	Quantitative Methods for Health Services Management and Policy	Req.
WNTR 1	HAD5020H	Canada's Health System and Health Policy: Part 2	Req.
	HAD5721H	Strategic Management of Quality and Organizational Behavior in Health Services Organizations	Req.
	HAD5723H	Health Services Accounting	Req.
	HAD5770H	Program Planning and Evaluation	Req.
SUMM 1	HAD5731H	Advanced Cases in Health Administration, Management and Strategy	Req.
	HAD5733H	Health Services Finance	Req.
	HAD5761H	Decision Support Systems in Health Care	Req.
	HAD6010Y	Practicum	Req.
	HAD6011H	Practicum Extension - optional	Req.
FALL 2	HAD5725H	Health Economics	Req.
	HAD5741H	Health Law	Req.
	HAD5767H	Health Services Marketing	Req.
	HAD5769H	Human Resources Management and Labor Relations in the Health Field	Req.
WNTR 2	HAD5736H	Operations Research Tools for Quantitative Health Care Decision Making	Elective
	HAD5765H	Case Studies in Health Policy	Elective
	HAD5774H	Comparative Health Care Systems	Elective
	HAD5775H	Competition, Cooperation and Strategy in Healthcare	Elective
	HAD5735H	The Commercialization of Health Research	Elective

Four courses are normally taken in each block, so a full-time student starting in September 2011 will complete the degree requirements in spring 2013. The Program requires each student to take 10 full credits, and each one-block course counts as one half credit.

The courses offered in each block are complementary, and are sequenced, with the introductory courses offered earlier to lay the foundation (pre-requisites) for courses in subsequent blocks. For example:

- The regression analysis taught in **HAD 5724**: *Quantitative Methods for Health Services Management and Policy* (Block 1) is a building block for the cost prediction models taught in HAD 5723: *Health Services Accounting* (Block 2).

- **HAD 5711**: *Theory and Practice of Strategic Planning and Management in Health Services Organizations* (Block 1) forms the basis for HAD 5721: *Strategic Management of Quality and Organizational Behavior in Health Services Organizations* (Block 2); HAD 5731: *Advanced Cases in Health Administration, Management and Strategy* (Block 3); and HAD 5769: *Human Resources Management and Labour Relations in the Health Field* (Block 4).

Eighty-five percent of the curriculum – all courses in Blocks 1-4 - is required and only fifteen percent is elective. Block 5 is reserved for electives to accommodate students' individual career paths and interests. These electives cover a wide range of advanced level subjects such as advanced policy (HAD 5765: *Case Studies in Health Policy;* HAD 5774: *Comparative Health Care Systems*), advanced economics (offered annually as an individual or group reading course) and advanced strategy (HAD 5775: *Competition, Cooperation and Strategy in Health Care*). An additional elective, HAD 5735: *Operations Research Tools for Quantitative Decision-Making* is also offered. Reading courses and courses offered elsewhere in the University may also be taken as electives but may not necessarily be offered in modular format.

All courses are taught by faculty with discipline-specific and industry-specific knowledge. Core Program faculty are actively engaged in major programs of health services research, and draw extensively upon research and scholarship in all teaching activities. This strong emphasis on research and its application to the health sector enables the Program to offer curriculum content that is on the cutting edge of new knowledge.

The Program faculty's community service activities are equally relevant to the curriculum. They keep the Program linked to the field of practice, provide concrete examples that faculty can use in their teaching and assignments, and keep faculty members up-to-date on issues of importance to teaching and practice.

The Program curriculum also provides many opportunities for students to network with senior level executives. Students are exposed through in-class sessions, seminars, and their required field placement (practicum) to leading edge practitioners and organizations. Students and graduates have identified this objective as an essential characteristic of the Program, and as key to helping them gain promotional opportunities and/or develop new career paths.

HAD 6010, the Program's required field work component, provides a unique opportunity for students to increase their appreciation of and competency in managing health services organizations. The practicum allows students to test and further develop their leadership skills in a practical setting, and is customized to meet individual student needs and interests.

Finally, the Program's emphasis on recruiting students from across the health care sector ensures that the class environment reflects the diversity of perspectives in the field and gives students additional networking opportunities.

ASSESSMENT OF LEARNING

Student learning in the program is assessed using competency based evaluation methods. Each course and the program overall, have a set of learning objectives/expected learning outcomes that students must demonstrate competence in to successfully complete the course. Both the course teaching and assessment methods are aligned to these objectives to ensure students have ample opportunity and guidance in the acquisition of the learning outcome e.g. demonstration of ability to use the competency, or application/practice using the competency. This approach requires higher order teaching and assessment methods including case analyses, field-based projects, laboratory write-ups, policy briefing notes, workshop presentations (i.e. teaching others), and reflective self and peer evaluation. All Program faculty have incorporated this approach into their teaching.

Although the program places much emphasis on team-based learning and assessment, each student must demonstrate individual competence in achieving the course learning objectives. No student can successfully complete a course if they have not obtained a passing grade in the individual component of the course, and no course can have more than 50% of the total grade allocated to group work.

Another tool for the assessment of student learning and competency development is the practicum component of the program. Preceptors (senior health leaders who also serve as a proxy for the larger employer group) provide regular feedback on students' knowledge, competencies and attitudes through preceptor evaluation forms completed at the end of the field placement, and in individual debriefings with the Program Director.

STUDENT AWARDS

There are a large number of awards available to students enrolled at the UofT, with information available to students on the University's Website (http://www.adm.utoronto.ca/adm-awards/html/awards/mainawdpage.htm). Specific HPME awards for which students in the MHSc program are eligible include the following:

- **The Foster G. McGaw Scholarship**
  Awarded to an incoming MHSc student on the basis of recognition and financial need from the Association of University Programs in Health Administration
  Amount: $ 750.00 U.S.

- **Harold Livergant Award**
  Awarded to a first year MHSc Health Administration student on the basis of dedication, commitment and promise in complex continuing care management and/or policy.
  Amount: $1,000.00

- **Robert Wood Johnson Award**
  Awarded to a graduating MHSc Health Administration student viewed as the most likely to contribute valuable service to health services management.
  Amount: $1,500

- **HPME Research Day Poster Awards – Professional Programs**
  Awarded to the best and second best poster for students enrolled in the MSc CEHCR program
  Amount: Best Poster $150.00, Second Best Poster $100.00

- **Maureen Dixon Award**
  Awarded to the best poster in Community Care
  Amount: $500.00

- **Robert Duff Barron Award**
  Awarded to the best poster related to health policy or public health policy
  Amount: $500.00

- **Best Oral Presentation at Research Day**
  Awarded to the best oral presentation at annual Research Day
  Amount: $150.00

STUDENT FUNDING

Students in the MHSc Health Administration program are normally not eligible for either OGS awards or OSAP loans as they are either working full-time or undertaking a series of paid practicums during their studies. However, MHSc students may apply to the Faculty of Medicine's Professional Bursary Program, which is awarded to students based on financial need. Each year, approximately one-quarter of the class apply for the bursary with awards ranging from $500 to $5000. For the 2010/2011 academic year, there was a total of $49,576.81 to distribute to HPME professional program students. All nine MHSc students who applied were granted a bursary, three of who received the maximum $5000.

QUALITY INDICATORS

The single most important indicator of quality of Health Administration programs in North America is accreditation from the Commission on Accreditation of Healthcare Management Education (CAHME). CAHME is an interdisciplinary group of educational, professional, clinical, and commercial organizations devoted to accountability and quality improvement of education for healthcare management and administration professionals. CAHME serves the public by promoting, evaluating, and improving the quality of graduate healthcare management education in the United States and Canada. It is the only organization recognized to grant accreditation to individual academic programs offering a professional master's degree in healthcare management education.

In 2005, the MHSc Health Administration Program received an eight-year accreditation from CAHME. This is the highest possible ranking, and the MHSc is one of only a few programs in North America to hold this award.

Student Indicators

Table 13 provides information on the number of applications, offers and new registrations to the MHSc program from 2005-2006 to 2009-2010. The Table indicates a steady increase in the number of applications (from 109 to 173, an increase of close to 60%), with a stable number of offers and new registrations (the program is capped at a maximum of 40 students). With the increase in the number of applications, the offer rate has decreased from 37% in 2005/2006 to last year's 27%. The acceptance rate (the number of registrations compared to the number of offers) has remained fairly consistent at around 80%.

TABLE 13: MHSc Applications, Offers and New Registrations

Degree		2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
MHSc	Applications	109	137	166	145	173
	Offers	40	44	43	45	47
	New Registrants	31	38	32	38	38

Table 14 provides information on the total number of students enrolled in the two years of the MHSc program. Because the program has been capped at a maximum of 40 students for a number of years, the overall number of students in the two years of the program has remained relatively stable from 2005. The MHSc is a full time modular program; as such, there are no students with part time status.

TABLE 14: MHSc Total Student Enrolments

Degree	Attendance Class	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010
MHSC	PT	0	0	0	0	0	0
	FT	61	72	72	68	75	70

Tables 15 and 16 provide information on the completion rates and the program progression rates of students in the program. As the tables indicate, over 90% of students who enroll in the MHSc degree complete the degree and the vast majority of students complete the degree in the prescribed time of two years. The overall GPA is A-.

TABLE 15: Time to Completion (TTC) Rates, MHSc (full time students)

	HPME (MHSc)		Life Sciences		All UT	
Year of Graduation	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads	Mean TTC (years)	Number of grads
2005-06	1.68	29	1.88	341	1.66	1218
2006-07	1.69	34	1.92	381	1.67	1294
2007-08	1.64	37	1.93	417	1.63	1423
2008-09	1.69	30	1.89	411	1.65	1652
2009-10	1.69	34	1.81	404	1.67	1791

TABLE 16: Progression Rates of MHSc (full time students)

Year	New	After 6 terms (2 years)				After 9 terms (3 years)			
		TR	WD	CO	IP	TR	WD	CO	IP
2005-06	31	0	1	29	1	0	1	30	0
2006-07	38	0	0	37	1	0	0	38	0
2007-08	32	0	1	28	3	0	1	30	1

	After 6 terms (2 years)				After 18 terms			
	TR	WD	CO	IP	TR	WD	CO	IP
Averages:	0%	3%	92%	5%	0%	3%	97%	0%

Legend:

TR - transferred from master's to PhD
WD - permanent withdrawals and lapses (attrition rate)
CO - completed degree (graduation rate)
IP - in progress

In terms of course evaluations, on a 5 point scale where 1 is excellent and 5 is poor, the MHSc block evaluations for HPME offered courses by block are indicated in Table 17.

TABLE 17: MHSc block evaluations for HPME offered courses

Block	Evaluation Criteria	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
FALL 1	Overall evaluation of the course	2.0	1.9	2.0	2.1	2.3
	Appropriateness for course	2.0	1.6	2.2	1.9	2.1
	Extent to which overall objectives were met	2.1	1.8	1.9	1.9	2.2
	Enthusiasm for subject	1.6	1.8	1.8	1.6	1.8
WNTR 1	Overall evaluation of the Course	2.3	2.1	2.0	2.0	2.6
	Appropriateness for courses	2.3	1.9	1.8	1.8	2.6
	Extent to which overall objectives were met	2.3	1.9	1.8	2.0	2.5
	Enthusiasm for subject	1.7	1.4	1.4	1.5	2.0
SUMM 1	Overall evaluation of the course	2.4	2.1	2.7	2.4	2.4
	Appropriateness for course	2.5	2.1	2.7	2.6	2.6
	Extent to which overall objectives were met	2.5	2.0	2.4	2.3	2.3
	Enthusiasm for subject	1.6	1.4	1.6	1.6	1.6
FALL 2	Overall evaluation of the course	2.2	2.2	2.4	2.2	2.4
	Appropriateness for course	2.3	2.1	2.2	2.1	2.5
	Extent to which overall objectives were met	2.1	2.3	2.2	2.0	2.3
	Enthusiasm for subject	1.7	1.6	1.8	2.0	2.2
WTNR 2	Overall evaluation of the course	2.1	2.1	1.7	2.3	1.8
	Appropriateness for course	2.0	1.8	1.8	2.1	2.0
	Extent to which overall objectives were met	2.2	2.0	1.6	2.0	1.8
	Enthusiasm for subject	1.2	1.1	1.2	1.6	1.5

NOTE: Evaluated Courses: FALL 1 (HAD5010H, HAD5711H, HAD5713H, HAD5724H), WNTR 1 (HAD5020H, HAD5721H, HAD5723H, HAD5770H), SUMM 1 (HAD5731H, HAD5733H, HAD5761H), FALL 2 (HAD5725H, HAD5741H, HAD5767H, HAD5769H), WTNR 2 (HAD5735H, HAD5736H, HAD65H, HAD5774H, HAD5775H)

Graduate Indicators

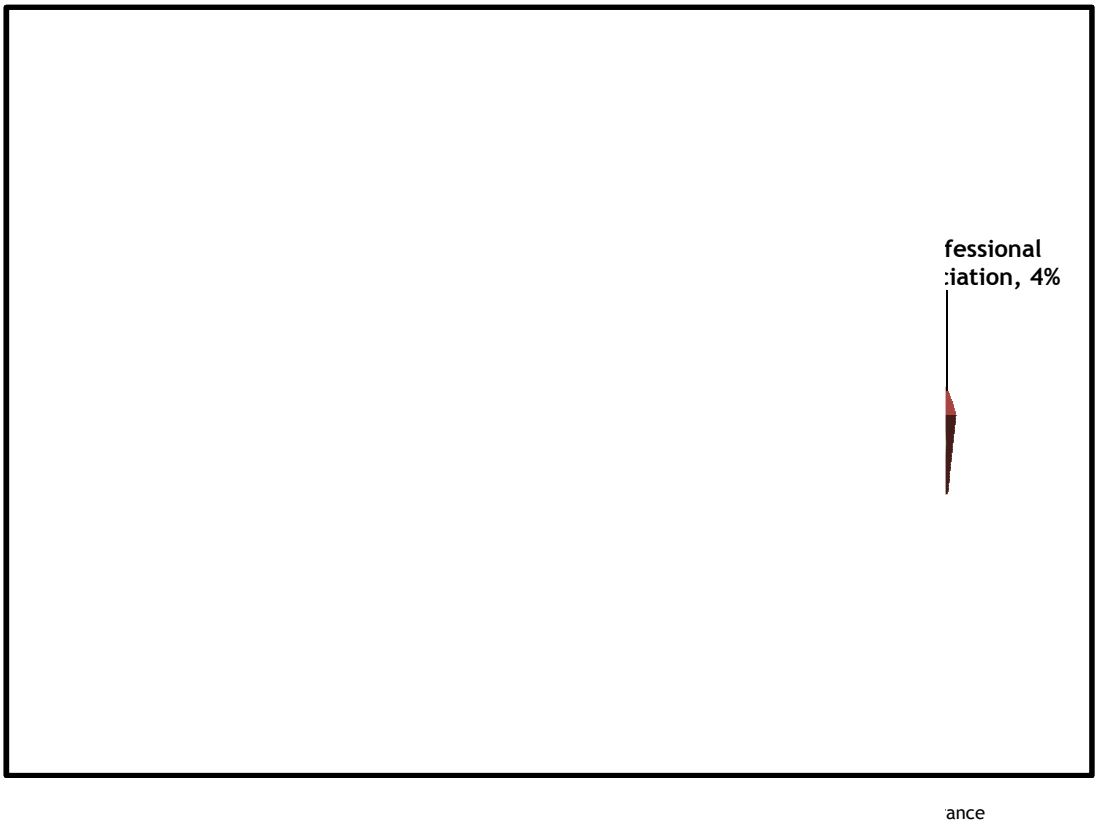
A variety of measures are used to assess the quality of the MHSc program and the preparedness of graduates to pursue careers consistent with the program mission. These measurements include CAHME accreditation, student academic and practicum performance, job placement rates, and career progression.

Preceptor satisfaction with student achievement (a proxy measure of potential employer satisfaction) is measured by overall practicum evaluations. On average, student overall evaluation scores range from 1 (outstanding) to 2 (excellent) on a scale from 1 (outstanding) to 5 (unacceptable), demonstrating that senior level executives (the majority of preceptors) are highly satisfied with the achievements of Program students.

In 1996, the MHSc program began surveying alumni to identify graduate employment patterns and their perceptions of the skills needed to be a successful leader. The most recent alumni survey was conducted in December 2008 and had a 45% response rate. Some of the key quality findings from the survey include:

- More than 88% of graduates indicated that the Program had been a very important influence in their career advancement.
- Graduate employment settings and positions are consistent with the Program's educational goals and objectives, which focus on preparation for leadership in health policy and management; and there is a definite increase in responsibility over time as graduates progress from the entry/middle levels to more senior management and/or policy positions

Chart 2 provides information on the current employment of MHSc graduates. The MHSc program is designed to allow students to maintain their employment while they are in school; as such, the employment rate post graduation for this program is close to 100%.



As the above chart illustrates, MHSc are employed in many different sectors. The largest group is employed in acute care (29%). Community agencies (7%) and government related agencies (19%) are also significant employers.

QUALITY ENHANCEMENT

In 2009-2010, the MHSc Health Administration program began a planning exercise that will set the direction for the program's future over the next five to ten years. As part of this process, the program explored emerging trends in professional education in health care management and policy within the global, national and local context, and undertook a series of key stakeholder interviews and an alumni survey to identify the range of competencies required for health care leaders now and in the future.

Based on the findings, the program reviewed and rewrote its program, mission, goals and objectives, identified a health leadership competency model to achieve the mission (NCHL), and sought approval and feedback at both the Program Advisory (faculty and students) and External Advisory Committee levels.

Some key findings that informed the program's future directions are:

- The significant growth in multidisciplinary and professionally oriented Masters Programs. In 1994-2003 nearly 70% of Master's students were in a professional degree program.
- Professional Masters are increasingly important for the Canadian workplace reflecting the need for multiple competencies and diversified knowledge in the workforce.
- Full-time Masters and PhD enrolment has risen 57% over last decade, with most growth seen since Fall 2000.
- The knowledge-based economy and labour market will continue to influence university participation rates
- Canadian health administration program content was more responsive to local (provincial) needs than global developments.

From a competency development perspective, the findings revealed that employers are seeking individuals who are able to work in team-based systems, are flexible, creative, and have advanced problem-solving, inter-personal and complex communication skills. Also of note is the focus on life-long learning and the ability to re-tool at all career stages. Knowledge is no longer a differentiator. In the future, prospective students will be looking for programs that have a curriculum that is based on behaviorally based skill sets and portfolios of experience, reflecting real world achievement. The importance of mentoring, practicums and other action-based learning methods will be critical.

Based on these findings, in spring 2010, the program underwent a curriculum mapping exercise in which all program faculty participated. The goal of this exercise was to review the learning objectives, outcomes, teaching and assessment methods for each course and the program overall, and map them to the NCHL competency model. The exercise provided the program with baseline data that identified curriculum gaps and insufficiencies, facilitating ongoing improvement activities at the individual course level, as well as across program streams (such as management and policy), and within program blocks of study. At the end of this process, the program will re-map the curriculum to the NCHL model, and make the results available to prospective students through our web site.

On an ongoing basis, the Program is evaluated at all levels – from the individual course to the Program as a whole.

At the course level:

- Students complete a one-minute evaluation at the end of each in-class session. Faculty receive immediate feedback on content, teaching methods, student learning styles, and assignments; these short evaluations allow for on-going course correction.

- At the end of the course, students complete a formal course evaluation, in which they assign numerical ratings to course quality and faculty teaching and also provide comments. The results of the individual evaluations are seen by the faculty member and the Department Chair.

At the block (semester) level:

- Students complete a five-minute evaluation at the end of each block; feedback is elicited about each course in the block and then about the block as a whole. This evaluation is the source of valuable comments and suggestions on course design and content. The results are reviewed by individual course faculty, the Program Director, and the Chair.

- The five-minute block evaluation also yields information on coordination at the block level. The tool permits examination of fit between courses and reading and assignment loads, and the results serve as the starting point for discussion between block faculty and the Program Director in block meetings. The evaluation and subsequent discussions promote integration so that knowledge does not become compartmentalized by discipline.

At the Program level:

- Students complete a formal program evaluation at the end of their studies. This tool evaluates satisfaction with the Program overall and with its individual components such as the application process, as well as perceptions of preparedness in various knowledge and skill areas. Many of the measures used in this evaluation tool (for example, perceptions of knowledge and skills gained) are also incorporated into the Program's alumni survey, and allow for comparisons as the Program evolves.

- Program alumni are surveyed periodically. Like the program evaluation tool, the alumni survey looks at overall measures of Program satisfaction including level of preparedness and appropriateness of the curriculum for the tasks and challenges facing alumni. It also tracks graduate career paths for alignment with the Program's mission, goals, and objectives.

- The Program's External Advisory Committee provides on-going practitioner advice on the Program's mission and goals, content and structure, selection and admission criteria, overall relevance, and relationships with the field. To assess the Program's accessibility, each year the External Advisory Committee and the Program's Admission Committee review a summary of the characteristics of the applicant pool.

The practicum experience is evaluated by all participants:

- The practicum evaluation forms and student practicum journals provide information on preceptor mentorship and contacts with practitioners.

- Preceptors (who also serve as a proxy for the larger employer group) provide regular feedback on students' knowledge, skills, and competencies through preceptor evaluation forms and in individual debriefings with the Program Director.

- Each year, the Program Director reviews the types of organizations used as practicum settings and the changing student preferences for field placements.

Major challenges facing the program over the next years will be ensuring resources to support e-learning opportunities allowing for greater global content in the program, and maintaining teaching resources given the number of program faculty who are anticipated to be retiring in the next 5 – 10 years.

An opportunity, rather than a challenge, will be to enhance the professional graduate offerings in health leadership for mid-career learners in the Department of HPME. Given that professional masters are increasingly seen as an entry-level work-force requirement, it is anticipated that over time applicants to the MHSc program will have less work experience, with most senior level leaders already having completed a masters early on in their careers. However, the demand to re-tool will still remain high among mid-careerists, creating a need for new and innovative graduate educational programs. One response to this has been a growth, in the US and in Europe, in Professional Doctorate programs in the area of health administration and/or leadership education. The Department, with its strength in both professional and research education, and its network of partners within the University, nationally and internationally would be ideally suited to establish such a program.

II. Health Informatics Degree (MHI)

PROGRAM DESCRIPTION

Health Informatics (HI) is a discipline that deals with the collection, storage, retrieval, communication and optimal use of health related data, information and knowledge. It recognizes the role of citizens in their own health care as well as the information handling roles of healthcare professionals, and is now considered a critically essential and pervasive element in sustainable health care delivery. There is a recognized need for the advancement and teaching of knowledge about the application of information and communication technologies to healthcare - the place where health, information and computer sciences, psychology, epidemiology and engineering intersect (Health Informatics Society of Australia, 1994; UK Health Informatics Society, 2007).

Since September, 2008 the Master of Health Informatics (MHI) has been offered as a full-time professional graduate degree program by the Department of Health Policy, Management and Evaluation (HPME) with faculty members cross-appointed from the Faculty of Information (iSchool) at the University of Toronto. The program is designed for individuals who wish to become a Health Informatics professional. They will gain the knowledge and skills necessary to integrate clinical expertise with information and communication technologies in order to solve problems, drive change in health care systems and improve health outcomes.

The MHI is a full-time 16-month program (4 consecutive sessions) which requires the completion of 10.0 full course equivalents (FCE). This course load includes a 16 week, full-time (600 hours) supervised practicum (2 FCE). A learner starting in September 2011 will complete the requirements of the degree in December 2012.

Learning in the MHI program can be lecture, experiential, case and problem based. Instruction takes a variety of formats, allowing learners to explore and apply subject material with assistance and guidance from faculty. A primary feature of the program is that the majority of classroom time is devoted to small group activities so that students can put concepts into practice.

Students in the MHI program come from a diversity of backgrounds that reflect the broad scope of the health care delivery sector, including health sciences (e.g., physicians, nurses, lab technicians, radiologists, social workers, or other allied health professionals) and health administration (health services professionals and administrators); as well as computer and information sciences and technology (e.g., computer science specialists, health related software vendors and developers, engineers, and information technologists).

Program History

The Health Informatics program was established at the University of Toronto because of a documented local and international need for health informaticians. Professional information skills are a critical component for the sustainability of the Canadian health care system. There was no other graduate program focusing on developing this skill set in central Canada; a particular lack given that Ontario represents the largest health care delivery system in North America. The International Medical Informatics Association (IMIA) raised international awareness with respect to the importance of developing a unique Health Informatics profession and academic discipline, define its competencies and curriculum, and prepare its professionals. The American Medical Informatics Association (AMIA) also identified that for health care systems to be “safe, efficient, timely, patient-centered, equitable, and effective”, a significant investment in technology, education and HI training of health care professionals and/or other individuals was required. In Canada, applications for graduate programs at the University of Victoria and Dalhousie University routinely exceeded spaces available for admission and they reported that the uptake of graduates for satisfying employment exceeded 90%. Local

community stakeholders indicated that there was, and would be for the foreseeable future, a significant unmet demand for graduates from a professional MHI program in Ontario.

Given this background, it was recognized that there was an opportunity for the development of a health informatics program at the University of Toronto. The values and mission articulated in the Stepping Up Academic Plan - for the U of T to be "a leader among the world's best public teaching and research universities in the discovery, preservation and sharing of knowledge through its teaching and research and commitment to excellence and equity" – would encompass a HI program by enhancing the student experience at the University and fostering interdisciplinary, interdepartmental, interdivisional cross campus collaborations. A health informatics program would also connect the University with the broader community (locally, nationally and internationally) through public policy and outreach. Hence, in 2006, a proposal for a Master of Health Informatics program was submitted and approved by the Academic Initiatives Fund (AIF). The development of the MHI program resulted directly from commitments made in the Academic Plans of the Faculty of Information Studies (FIS) (now referred to as the Faculty of Information – iSchool) and the Department of Health Policy, Management and Evaluation (HPME).

PROGRAM GOALS AND OBJECTIVES

Program Goals

In response to identified local, national and international need, as well as the University's mission and the Department's academic plan, two key goals were identified for the MHI Program:

- To prepare graduates to pursue health informatics careers across the full spectrum of the organizational, clinical and technology structures of the health and health care delivery system. This includes developing strategy, creating policy and performing high level decision making as health or clinical information systems managers and information specialists; providing system analysis, assessment, solution architecture and project management ; and facilitating the development, implementation and management of technological applications and change.

- To prepare graduates to interface and comfortably function across a broad spectrum of health care domains (clinical, medical, community, technological) in terms of language/jargon, culture, policies, psychosocial and organizational systems.

Program Objectives

The MHI Program at the University of Toronto addresses these goals through the following three objectives:

- By building a cohort of students from diverse backgrounds and working experiences.

  Students admitted to the MHI Program come from a diversity of backgrounds that are reflective of the broad scope of the private and public sectors involved in health care delivery and other related industries. They also represent a broad range of experience ranging from individuals who have recently completed their undergraduate degrees to individuals who are evolved professionals in their fields.

- By developing convergent skills and techniques to create a synergistic Health Informatics discipline and unique profession that is functional in all areas of health care delivery.

  The MHI program seeks to create a developmental process that will facilitate the emergence of a Health Informatics professional identity in its students and graduates, by identifying the

complementary skill sets among the diverse health informatics recruits; converging students within a single cohort to develop the Health Informatics professional identity; and expanding on the specialized skills required in specific Health Informatics roles and functions that occur across the full spectrum of the organizational, clinical and technology structures of the health and health care delivery systems.

The academic program design seeks to operationalize this developmental process by, initially, offering levelling courses that provide theoretical and practical knowledge of the two foundational HI domains (clinical or technical) to help students address their weaknesses and leverage their strengths. Then, through group, experiential, and various learning opportunities, the program facilitates cohort cohesion, dynamic interaction and learning opportunities whereby students can internalize in themselves the strengths and expertise learned from others and through their course work, and, finally, through practice in field placements as well as advanced core and domain specific elective courses, students will uniquely re-diversify their academic program thus advancing the development of a unique personal Health Informatics professional identity.

- By using the University of Toronto advantage of national and international expertise across all Health Informatics domains.

  The University of Toronto enjoys an international reputation in the fields of health sciences and health administration. The Program ensures that the very best expertise available at each participating faculty and department is integrated into the MHI program through a comprehensive menu of course offerings that encompasses the broad spectrum of cutting edge research, evidence and knowledge translation in Health Informatics domains. The Program also ensures the collective resources of health care delivery stakeholders and community partners are leveraged to provide students access to a world class program of Health Informatics technology, expertise and experience.

ADMISSION REQUIREMENTS

Candidates are admitted to the MHI under the general regulations of the School of Graduate Studies. Required background includes an appropriate four year undergraduate degree (e.g., Health Sciences or Social Sciences specialty, Regulated Health Professions in Ontario, Computer Science or Information Science Specialty) or its equivalent, from a recognized university with a minimum "mid B" average in the last academic year and demonstrated English language proficiency.

Preference is given to candidates with relevant professional experience, such as:

- health services professionals (e.g., manager or administrator),
- health sciences/clinical practitioners with demonstrated basic literacy and/or programming skills in computer applications relevant to the health sector, and/or
- computer or information technologists and specialists within a health care setting or health software vendor.

CURRICULUM AND PROGRAM DELIVERY

The structure of the program and sequencing of courses in terms of content and pedagogical technique critically influences how MHI students achieve specific learning outcomes and engage in the developmental process of creating a Health Informatics professional identity. While many content components are common in Health Informatics education in Canada, this articulated program theory and developmental model has been specifically developed for the University of Toronto program.

Program Structure and Curriculum

The MHI Program is offered on a full time basis over 4 consecutive terms. A full course description is provided below:

Semester	Course Number	Title	Required
FALL 1	MHI1001H	Introduction to Information and Communication Technology in Healthcare	Req.
	MHI1002H	Complexity of Clinical Care for Non-Clinicians	Req.
	MHI2001H	Health Informatics I	Req.
	INF1003H	Information Systems, Services and Design	Req.
	INF1341H	Analyzing Information Systems	Req.
WNTR 1	MHI2002H	Health Informatics II	Req.
	MHI2003H	Consumer Health Informatics and Public Health Informatics	Req.
	MHI2007H	Quantitative Skills in Health Informatics	Req.
	INF2183H	Knowledge Management and Systems	Req.
	MHI2004H	Human Factors and Change Management in Health Services	Req.
SUMM 1	MHI2008H	Project Management for Health Informatics	Req.
	MHI2005Y	Health Informatics Practicum	Req.
FALL 2	HAD5010H	Canada's Health System and Health Policy: Part 1	Req.
	HAD5728H	Performance Measurements in Healthcare: Theory and Application	Req.
	MHI2006H	Advanced Topics in e-Health Innovation (Health & Clinical Information Systems)	Req.
	MHI3000H	Evaluation for Health Informatics	Req.
		Elective course*	Elective

Note: Program requires completion of 10 full credits.

*Students are encouraged to select an elective that allows them to focus on their individual areas of interest in Health Information. For this reason MHI program does not impose a selection of electives. Students are free to choose from all graduate courses across all discipline at University of Toronto. All selections are subject to approval in advance by the program director and the chair of HPME.

In Terms 1 and 2, students are required to understand, internalize and integrate theoretical foundations of Health Informatics component domains and technologies including: health information systems and technology; health care delivery and clinical systems; information and communication technology theory, systems and applications; data processing, health enterprise architectures and systems; knowledge management; decision support; human-computer interface; change management, organizational behavior and leadership. There are also two leveling courses in Term 1 (MHI1001H and MHI1002H) which introduce and focus students with varying skills and experience from across the broad spectrum of undergraduate studies to the practical as well as cultural components of Health Informatics.

Health Informatics I (MHI2001H) maps the breadth and depth and essential infrastructure of Health Informatics. The Introduction to Information Systems, Services and Design (INF1340H) course in Term I provides students with the theoretical and practical understanding of information systems and the roles and functions of information technologies within organizational practices and structures. With a focus on analytical and modeling techniques, Analyzing Information Systems (INF1341H) begins to develop students as intermediaries between technical system developers, and business managers and users in health care delivery systems. Health Informatics II (MHI2002H) places the theoretical elements of Health Informatics learned in Health Informatics I into context by describing the main applications of Integrated Communication Technologies in health care, developing the Health Informatics vocabulary and standards, as well as identifying technical, organizational, ethical and legal issues. Quantitative Skills for Health Informatics (MHI2007H), as well as Knowledge Management and Systems (INF2183H), provides students with techniques and tools to create information and knowledge from data, as well as the capacity to manage and transfer that knowledge to meet health care organizational needs. Consumer and Public Health Informatics (MHI2003H) introduces more specificity in Health Informatics by examining the application and role of Integrated Communication Technologies in consumer engagement and Public Health care delivery. The course reinforces the principle that Health Informatics is "client centred" and "recognizes the role of citizens as agents in their own care".

The 4 month summer practicum experience (MHI2005Y) provides students a significant opportunity to directly apply and practice the theory and knowledge gained in course work in a health care related organization. Students are evaluated on how well they have generalized their fundamental skills to achieve identified learning objectives. The practicum is supported by preparatory workshops which introduce students to the theory and practice of facilitative leadership including collaborative team building, group dynamics and conflict resolution, as well as reflective learning techniques. Students also participate in a Project Management (MHI2008H) course during their practicum which explores theory and methods that will enhance their capacity to design and implement "solution architecture".

By Term 4, students are developing the capacity to generalize Health Informatics skills in novel and context specific ways to improvise or create innovative and custom solutions to health care system problems. All courses in Term 4 use the "case study", problem based learning, or a participatory pedagogical approach. Human Factors and Change Management (MHI2004H) offers students an overview on techniques and issues relevant to the adoption of Integrated Communication Technologies in complex socio-technical environments. Canada's Health System and Policy I (HAD5010H) broadens students' perspectives in depth and breadth by critically analyzing key issues and trends in Canada's health care system. Advanced courses in Term 4 are highly interactive and further increase students' capacity to generalize their skills across a multitude of HI contexts through assessment, design and evaluation of e-health innovations (MHI2009H), advanced topics on eHealth issues and systems (MHI2006H), and performance measurement (HAD5726H). In the final term, students also choose one elective course to either expand their breadth or depth in their HI area of interest.

Outcomes of the MHI Program

All courses, individually and as an entity, have clearly articulated learning outcomes that permit the student to develop specific Health Informatics competencies. The program is designed to ensure that graduates will demonstrate the following outcomes:

- comprehensive knowledge of health care delivery policies and systems,
- understanding of how effective use of information within health systems ensure patient/consumer privacy and confidentiality and improve health and medical processes with the goal to facilitate successful outcomes for health care consumers,
- knowledge and skills required to contribute to the development of information and communication technology infrastructure supporting health care, such as point of care informatics applications, electronic health records and other information communication technologies,

- facilitate the design and implementation of effective and efficient methods and processes for acquiring, processing and storing data,
- develop appropriate models for evaluating information systems, classification systems, health information communication systems and the quality of health information services,
- analyze data, produce information and transfer knowledge that meets the needs of clinicians, managers and decision makers,
- critically analyze systemic, organizational and cultural issues associated with the implementation of e-health initiatives across the clinical, medical, community, and technological domains of health care,
- provide leadership, develop interpersonal relations, engage in conflict resolution, as well as articulate ideas with strong oral and written communication skills,
- manage change in health care organizations from diverse communities, drawing on the social and behavioural sciences, and
- evaluate both business and health care delivery practices focusing on structure, process and outcomes measurement and quality improvement.

ASSESSMENT OF LEARNING

Assessment Process

Students' progress through the program is constantly monitored. Their development as Health Informatics professionals and performance is assessed using a variety of approaches:

- One-on-one interviews and student self-assessments,
- Group feedback sessions (at the end of each term and at the end of the program),
- Course grade and performance evaluation upon completion of each term,
- Faculty meetings and course reviews twice per year,
- Students' reflective learning journal summaries from practicum placements,
- Feedback from field placement supervisors and evaluations from practicum preceptors, and
- Evaluations from guest lecturers, workshop providers, and other instructors.

Assessment Outcomes

The assessment of students' progress through the developmental process of becoming a Health Informatics professional encompasses not only mastery of knowledge that includes both content and practice, but also students' introspective recognition of how the program influences the iterative evolution of their own Health Informatics professional identity.

- Students understand, internalize and integrate theoretical foundations of Health Informatics component domains and technologies

  Students must maintain a minimum B grade average in Term 1and 2 course work. Evaluation methods include group and poster presentations, individual papers that include literature reviews, critical analysis or reflection; and examinations testing content knowledge. In addition to the content covered during these semesters, completion of this course work should ensure students understand group dynamics and conflict resolution and its impact on experiential and vicarious learning, are able to identify in congruities, complexities and ambiguities across the Health Informatics knowledge domains, and be able to recognize the need for high tolerance of that ambiguity.

- Students demonstrate a working knowledge of the interrelated complexity, methods, tools, standard practice and implementation of technologies

Students must maintain a minimum B grade averages in Term 1 and 2 course work. In addition to traditional group and individual assignments that focus on critical analysis and argument with respect to specific problems or issues in Health Informatics, evaluation methods also include poster presentations, weekly quizzes, computer based statistical analysis output, white papers, and "wikki" contributions. Successful completion of this course work will also demonstrate learning of facilitative leadership techniques and reflective learning, skills and techniques that facilitate tolerance of ambiguity and the ability to generalize or link disparate concepts and ideas from across the Health Informatic knowledge domains into useful frameworks by developing arguments for best practices that are evidence based.

- Students exhibit the capacity to generalize developing Health Informatics skills in novel and context-specific ways to improvise or create innovative and custom solutions to health care system problems

  Students must maintain a minimum B grade average in Term 3 and 4 course work. Evaluation methods include reflective learning journal summaries; practice evaluations from field placement supervisors based on negotiated learning objectives in defined and "real world" projects; group and individual practice presentations through capstone projects; multi-media project management role playing and simulations; sample RFPs, white papers, policy briefs, proposals; and/or other industry and practice relevant activities. Students completing the program should feel prepared to pursue current professional credentialing such as the Certified Professional in Healthcare Information and Management Systems – Canada (CPHIMS-CA) and/or the Project Management Professional (PMP). They will also demonstrate skills and techniques that facilitate high performance, cross-disciplinary collaborative teams. Students should be able to present with emotional intelligence including insight into self and others, focus on and prioritize collective intelligence and enable groups to find direction and solutions.

STUDENT AWARDS

There are a large number of awards available to students enrolled at the University of Toronto, with information available to students on the UofT's Website (http://www.adm.utoronto.ca/adm-awards/html/awards/mainawdpage.htm). Specific HPME awards for which students in the MHI program are eligible include the following:

- **HPME Research Day Poster Awards – Professional Programs**
  Awarded to the best and second best poster for students enrolled in a professional program
  Amount: Best Poster $150.00, Second Best Poster $100.00

- **Maureen Dixon Award**
  Awarded to the best poster in Community Care
  Amount: $500.00

- **Robert Duff Barron Award**
  Awarded to the best poster related to health policy or public health policy
  Amount: $500.00

- **Best Oral Presentation at Research Day**
  Awarded to the best oral presentation at annual Research Day
  Amount: $150.00

Plans are in development to seek private sector sponsorship specifically for an award in eHealth or Health Informatics for next year's Research Day.

STUDENT FUNDING

Because the MHI is a professional program, it is not eligible for OGS awards or funding. Students who are admitted to the program are eligible to apply for OSAP loans. In addition, MHI students may apply for the Faculty of Medicine Professional Programs Bursary, which is awarded on a needs basis only. In 2010 about half of MHI students applied for the bursary, with all receiving awards ranging from $500.00 to $5000.00.

Students may also be funded through their 4 month practicum placement. Although the program does not guarantee that all placements offered for application are funded, to date, all MHI students have been placed in a funded placement. The average stipend/honorarium received is $12,000 per student.

QUALITY INDICATORS

There were 28 applications for the 2008/2009 cohort, 10 who were offered positions and 8 who ultimately enrolled in the program (80% acceptance rate). For the 2009/10 cohort, applications jumped to 62 (a 67% increase), 26 of whom were offered positions and 17 who ultimately enrolled (a 65% acceptance rate).

The MHI program has now graduated two classes. All students who enrolled in the program have graduated "on time" (16 months). All were successful in completing their course work (with an average A- average) and in locating and completing their practicum placements. Placements were uniformly relevant and included such diverse settings teaching hospitals, community hospitals, health agencies (primary care, community care, mental health), government agencies, private sector vendors (IBM, TELUS, Medwaxx) and consulting firms.

In terms of course evaluations, on a 5 point scale where 1 is excellent and 5 is poor; the MHI term evaluations for HPME offered courses are indicated in Table 18.

TABLE 18: MHI term evaluation for HPME offered courses

Semester	Evaluation Criteria	2009-2010	2010-2011
FALL 1	Overall evaluation of the course	2.3	2.0
	Appropriateness for course	2.8	2.0
	Extent to which overall objectives were met	2.1	1.8
	Enthusiasm for subject	1.9	1.8
WNTR1	Overall evaluation of the semester	2.3	2.1
	Appropriateness for courses	2.3	2.2
	Extent to which overall objectives were met	2.1	2.0
	Enthusiasm for subject	1.8	1.1
FALL 2	Overall evaluation of the course	2.0	2.5
	Appropriateness for course	1.8	2.1
	Extent to which overall objectives were met	2.0	2.4
	Enthusiasm for subject	1.3	2.0

NOTE: Evaluated Courses: FALL 1 (MHI1001H, MHI1002H, MHI2001H), WNTR 2 (MHI2002H, MHI2003H, MHI 2007H), FALL 2 (MHI2006H, MHI3000H, HAD5010H)

All graduates from the first two cohorts of the MHI program are currently employed in relevant positions. Anecdotal information from current employers suggests that graduates are highly trained and

have provided much needed expertise to the workplace. The "skill match" between employment settings and program competencies appears to be high. Current employment settings include teaching hospitals, community hospitals, LHINS, government agencies, and private sector organizations (IBM, Ontario MD).

No MHI alumni surveys have been conducted to date, but most graduates have stayed connected to the program and have been involved in an advisory capacity to the program and as mentors to current program students. There are relatively few programs similar to the MHI program across Canada. Similarly, there are no independently prepared accreditation reports or provincial/national/professional standards with which to assess the program. The few programs that are available all have a unique mission and would appear to be complementary to each other, rather than competitive.

QUALITY ENHANCEMENT

Program Enhancements

A number of initiatives have been implemented to enhance the quality of the program since it was established in terms of the content, process and professional development of students:

Enhancements to MHI curriculum

In 2011, professional skills workshops were introduced, which provide MHI students with support and skills in developing their professional marketing profile and CV/resume. In the 2010-11 academic year, a monthly seminar series on eHealth was offered to HPME students and community partners or stakeholders. In 2009, a bi-annual workshop on Legal Issues in Health Informatics was introduced. The workshop was open to all in the Health Informatics community. And, finally, in 2009, four workshops provided by the Office of Student Life, Leadership Development Program, were introduced. The workshops are custom designed to provide professional skills development for MHI students as they prepare for their practicum placements. The workshops included Group Coordination and Facilitation; Communication and Conflict Resolution; Connecting Leadership Theory to Practice; and, Reflective Practice: Making Meaning.

Enhancements to program administration

In 2010, the program implemented the MHI Advisory Committee which will guide the ongoing development and evolution of the MHI program. Members of the committee include representatives of faculty, department, students and alumni. The MHI Advisory Committee meets bi-monthly. In 2011, as a member of the COACH Academic Forum Task Force, the program participated with the Task Force's "Curriculum Discussion Working Group (CDWG)" sub-committee. The CDWG seeks to collect information from all Health Informatics academic programs in Canada (certificate, undergraduate and graduate) to describe and understand the current state of Health Informatics education and workforce capacity building.

Key Challenges and Opportunities over next 5 years

As described in above, Health Informatics is a new and emerging profession that currently lacks the benefit of regulatory or accrediting organizations that can establish evidence based standards of health informatics professional practice. Additionally, the multi-disciplinary and multi-dichotomous (private vs. public, technical vs. clinical, provider vs. patient/consumer) nature of Health Informatics creates a space that is inherently chaotic, ambiguous, and ambivalent to change. Therefore, the system(s) in which MHI students are required to adapt, learn, develop, and step forward as leaders presents both challenges and opportunities.

Health Informatics in general, and eHealth systems in particular, are currently the focus of much debate at community, provincial and federal political levels. At least in the short term, this may have far reaching implications for the funding and development of the informatics infrastructure that is required in sustainable health care delivery. Consequently, for the foreseeable future, Health Informatics and eHealth initiatives will likely be project based as opposed to stable and system wide. Thus, demand for MHI graduates and graduate education will fluctuate.

The University of Toronto has much strength that supports the MHI program. Organizational support of professional programming in Health Informatics education requires particular adaptations. Research and student feedback indicate that the most effective and attractive component of Health Informatics graduate education is the emphasis on experiential learning. Consequently, as is traditionally available for research activities, the Program is working to ensure that the academic institutional structures that create, facilitate, support and enhance Health Informatics experiential learning opportunities (e.g., co-op, internship, or field placement) with community partners within and across both public and private sectors are fostered.

In addition to the inherent uncertainties in Health Informatics knowledge domains and practice, the MHI program adds additional complexity with its curriculum sourced from multiple graduate units (e.g., HPME and iSchool) and professional perspectives. As a result, particularly in the early stages of student progression, the program has worked to provide students with a sense of continuity, flow, progress and accomplishment within the curriculum; a critical condition for successful learning and professional functioning in the discipline. Particular attention has been paid toward creating structures and processes across all courses and within the MHI program that will improve communication, coordination, and planning; foster relationships; and model excellence in cross disciplinary collaboration among faculty and between faculty and students.

Notwithstanding the short term challenges described above, investments continue to be made in the informatics infrastructure. Evidence from government and industrial sources show that, in the long term, demand for Health Informatics professionals will remain high. Comprehensive marketing plans and initiatives are required to access and leverage this demand.

The current absence of regulatory or accrediting organizations has provided impetus for general discussion across government agencies, academic institutions and professional advocacy organizations with respect to Health Informatics research, knowledge translation, standards of practice, core competencies, and education. Funding and other initiatives through Canada Health Infoway, Canadian Association of Faculties of Medicine, and COACH provide excellent opportunities for students and faculty in the MHI program to participate in these discussions and assume leadership roles in the ongoing development of the Health Informatics profession.

C. COMBINED PROGRAMS

I. Nursing/Health Administration (MN/MHSc)

PROGRAM DESCRIPTION

Building on the strengths of both the Nursing and MHSc Health Administration programs, the MN/MHSc Health Administration Combined Degree prepares graduates to provide nursing leadership in today's complex and inter-disciplinary environments.

The program provides a solid foundation in nursing management and leadership combined with a broader health services focus in health policy, business and management. It is the first and only program in Canada to combine graduate education in both nursing and health services management. The faculty include leading researchers who incorporate the latest nursing and health services research into their teaching.

A comprehensive, multidisciplinary curriculum provides graduates with key leadership competencies and attributes in such areas as workload measurement, quality improvement, organizational behavior and change management, health care trends and issues, strategic planning, health policy and economics, outcomes and evaluation, knowledge exchange and translation, human resource management, information systems, and accounting and finance. Practicum placements provide students with valuable experiential learning under the supervision and mentorship of senior health care executives.

The Program accepts applications from nursing managers and professionals in hospital, long-term care, mental health, community and public health settings who wish to pursue more senior responsibilities, particularly in an interdisciplinary environment.

ADMISSION REQUIREMENTS

Admission to the MN/MHSc Health Administration Combined Degree Program is conditional upon independent admission to the Department of Health Policy, Management and Evaluation; and the Faculty of Nursing. Candidates must satisfy the full requirements for admission to the MHSc Health Administration and the Masters in Nursing.

CURRICULUM AND PROGRAM DELIVERY

The MN/MHSc Health Administration Combined Degree Program can be completed within 2.5 years of full time study. The MN component comprises 8 required half-courses. The MHSc Health Administration component comprises 13 required half-courses. In addition, the Combined Degree Program requires two elective half-courses that can be taken from either the MN or the MHSc course offerings.

During the first year of the Program, students are enrolled in the Faculty of Nursing and are expected to complete 8 half-courses for the MN degree. During the second year of the program, students are enrolled in HPME and are required to complete 11 half-courses towards the MHSc Health Administration degree plus two electives that can be taken from either degree program. Year 3 consists of three half-courses taken in HPME.

PROGRAM CURRICULUM

The curriculum for the MN/MHSc Health Administration Combined Degree Program is designed and sequenced to provide for the development of fundamental professional and management competencies while keeping learners at the forefront of events in the health sector.

Year 1	
September-December	
NUR1016H	Health Systems, Policy and the Profession
NUR1017H	History of Ideas in Nursing Practice
NUR1064H	Behavior in Health Care Organizations
January-April	
NUR1022H	Research Design, Appraisal and Utilization
NUR1060H	Leadership and Management of Nursing and Health Services
NUR1021H	Nursing Ethics
May-July	
NUR1066H	The Theoretical Basis for Methodology for Quality Improvement in Nursing Services
NUR1059H	Informatics, Theory and Application in Nursing

* Total Course Load for Year 1 - 8 half-course credits

Year 2	
September-December	
HAD5711H	Theory and Practice of Strategic Planning and Management in Health Services Organizations
HAD5713H	Introduction to Health Information Systems
HAD5724H	Quantitative Methods for Health Services Management and Policy
HAD5767H	Health Services Marketing
January-April	
HAD5020H	Canada's Health System and Health Policy : Part 2
HAD5723H	Health Services Accounting
HAD5770H	Program Planning and Evaluation
Elective	or optional practicum
May-July	
HAD5731H	Advanced Cases in Health Administration, Management and Strategy
HAD5733H	Health Services Finance
HAD6010Y	Practicum - one full credit
Elective	

* Total Course Load for Year 2 - 13 half-course credits

Year 3	
September – December	
HAD5769H	Human Resources Management and Labour Relations in the Health Field
HAD5725H	Health Economics
HAD5741H	Health Law

*Total Course Load for Year 3 - 3 half-course credits

II. Health Administration/Social Work (MHSc/MSW)

PROGRAM DESCRIPTION

The combined MHSc Health Administration/Masters in Social Work allows individuals to integrate their commitment to serving vulnerable individuals and populations with the knowledge and skills needed to lead in today's challenging health and social services environment.
An integrated and comprehensive program of study, this degree interests those with a strong interest in both social work and health/social sciences management.

The combined MHSc Health Administration/MSW program provides a unique combination of social work knowledge and values with business and management expertise. Program faculty are foremost thinkers, researchers and practitioners in social work and heath care today. Practicum placements are completed under the mentorship of leading social work practitioners, practice leaders and health care executives.

The Program accepts applications from candidates with previous experience in either health care management and/or health-related social services.

ADMISSION REQUIREMENTS

Admission to the MHSc/MSW is conditional upon independent admission to the Department of Health Policy, Management and Evaluation and the Faculty of Social Work. Candidates must meet the Admission Standards for both the MSW and MHSc Health Administration Programs.

CURRICULUM AND PROGRAM DELIVERY

There are two full-time streams of study for this combined degree:

- a 3 year program for students admitted with a four-year undergraduate degree; and
- a 2.5 year program for students with a Bachelor in Social Work.

Because the MHSc Health Administration program does not have a part-time program, students entering the MHSc Health Administration/MSW Combined Degree Program must commit to progressing through the program on a full-time basis. If, in exceptional circumstances, it becomes necessary to modify the pace, transfer from full-time to part-time studies is done in accordance with the policies set out by the School of Graduate Studies.

Three Year Program

- Students entering Year 1 of the combined program undertake full-time study through the MSW Program enabling them to obtain a solid foundation in the academic knowledge, research skills, and practice components of Social Work prior to commencing their health management studies.
- Year 2 of the combined program consists mainly of full-time study within the MHSc Health Administration program, providing students with a solid grounding in management skills and competencies, along with one elective each term from either MHSc or MSW.
- Students in the combined program are required to undertake SWK4702Y - Social Work Practicum II, in an area of practice related to health/social services management, and/or policy in settings, such as, community health centres, or community care assessment centres.

Two and a Half Year Program

- Year 1 of the combined program consists of full-time study within the MHSc Health Administration Program, plus SWK4702Y - Social Work Practicum II.
- Students in the combined program are required to undertake SWK4702Y - Social Work Practicum II, in an area of practice related to health/social services management, and/or policy in settings, such as community health centres, or community care assessment centres.

4. OTHER EDUCATIONAL ACTIVITIES

A. CONTINUING EDUCATION

I. Health Technology Institute

PROGRAM DESCRIPTION

THETA in collaboration with the Department of Health, Policy, Management and Evaluation, Leslie Dan Faculty of Pharmacy, and Health Care, Technology and Place Program hosted the inaugural Health Technology Assessment Institute for Decision Makers in July 2011.

The HTA Institute gathers experts from a range of disciplines to provide attendees with pragmatic tools for HTA. The course examines three key dimensions of HTA: clinical evidence, economic evidence, and social and ethical implications of health technologies. The three-day intensive course is filled with theory and interactive sessions. In the final exercise, participants are asked to deliberate and write a recommendation for a given health technology. A panel of decision makers, working at the national and provincial levels, provides insight on the recommendations presented. They also provide an overview of HTA within their decision making context.

PROGRAM OBJECTIVES

By the end of the course, participants are expected to be able to:

- Explore the standards for clinical evidence
- Review and appraise measures of evidence
- Explore cost-effectiveness analysis
- Assess and interpret cost-effective analyses
- Explore the social and ethical issues in HTA
- Identify ways to address social and ethical issues through HTA

CURRICULUM AND PROGRAM DELIVERY

Day 1: Clinical Evidence

Day 1 examines the nature of clinical evidence. Participants learn how to verify the effectiveness of an intervention by reviewing the standards for evidence and the strengths and weaknesses of alternative study designs such as randomized controlled trials and observational research. The day also touches on common measures of effectiveness so that participants can understand the types of outcomes included in clinical research studies.

Day 2: Economic Evidence

Day 2 explores the idea of value, the relationship between cost and health benefit. Participants learn the key concepts and designs in cost effectiveness analysis, how to perform a simple analysis, and how to appraise and interpret cost effectiveness analyses that are part of health technology assessments. The day is built around real-world cases but includes theory and practical exercises.

Day 3: Social and Ethical Issues

Day 3 examines the social and ethical issues that arise in HTA and how these can be explicitly addressed. Health technologies raise social and ethical issues that might not be fully captured in assessments of clinical and cost effectiveness. Historically, these issues have only been identified

in a few extreme cases. Today, there is increased interest in making social and ethical issues in HTA more transparent. Through lectures and interactive small group sessions, participants learn why clinical and cost effectiveness methods are not always enough, and how additional evidence or decision-making could improve HTA recommendations.

QUALITY INDICATORS

There were 25 registrants from government agencies, hospitals, pharmaceutical companies, and the academia for the inaugural offering. Participants were comprised of managers in the top and middle management levels (72%) and HCTP doctoral and post-doctoral Fellows (28%). The range of HTA knowledge greatly varied among participants.

Almost all participants (95%) deemed the quality of the curriculum as excellent and very good. The balance of didactic and interactive sessions was well commended. The quality of faculty and their presentations were reviewed as excellent by most of the participants (75%). The small group interactive sessions and decision maker panel session were greatly valued.

Although there was a balance between theory and practice, participants would like to have had more hands-on exercises and less preparatory course readings.

Overall, the course was reviewed favorably. All participants considered the course useful and relevant in varying degrees. The feedback received from the inaugural Institute will enable improvements to ensure the Institute's long term success.

II. Physician Leadership Program

PROGRAM DESCRIPTION

Established in 1999, the Physician Leadership Program (PLP) focuses on developing the knowledge and skills that are required by today's physician leaders. The program is offered on an annual basis in the fall of each year, and is targeted to physicians in leadership roles such as academic leaders, chiefs of staff, department and division heads, program managers and other medical leaders. The class size is limited to a maximum of 35 participants.

PROGRAM OBJECTIVES

The overall goal of the program is to enhance physician leadership capacity within Canada's healthcare system and provide physicians with tools for influencing organizational effectiveness. Program objectives are as follow:

- Apply key leadership theories to assessing and developing individual leadership style and approaches
- Utilize Myers Briggs Type Indicator individual assessment results to introduce new and enhanced approaches to decision-making, communication and conflict management
- Critically analyze health system case studies and propose specific management strategies
- Develop tools and approaches for leading practices in patient safety and quality
- Develop negotiating skills and approaches to managing conflict
- Develop skills to put in place strategies for leading change, building teams and motivating others

PROGRAM STRUCTURE AND LEARNING PHILOSOPHY

The program is delivered over two three day modules (Thursday, Friday and Saturday) held one month apart, allowing for the application of knowledge and skills between modules. The Program's teaching philosophy centres around problem-based learning. Methods include interactive lecture and discussion sessions, case based teaching, personal assessments and feedback, and small group problem-solving and role-playing exercises. The program provides participants with a safe environment to share issues and challenges, lessons learned, and ideas for improvement. Participants often develop a support network that persists post the program.

CURRICULUM AND PROGRAM DELIVERY

The program's curriculum is drawn from leading research and educational practices on leadership, and key informant interviews with physician leaders. The main content areas are:

- Understanding leadership and how it is defined in today's context
- Health care system and challenges for physician leadership
- Increasing awareness of yourself and others - The Myers-Briggs Type Indicator
- Physician leaders: Experience from the trenches
- Leading change and influencing people
- Leadership for quality and patient safety
- Working with professionals: Promoting high performance workplaces
- Leadership for high performing teams
- Measuring healthcare delivery and understanding healthcare funding
- Resource management: Getting a fair share
- Negotiation and conflict management

FACULTY

Program faculty are selected for their expertise in health leadership and teaching. They include university-based academics and health system/physician leaders, allowing for a blend of theory and practice within the class-room setting.

QUALITY ENHANCEMENT

The Office of Continuing Education and Professional Development, Faculty of Medicine, University of Toronto assesses the Physician Leader Program on an annual basis. The program is certified as meeting the accreditation criteria of the College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada (38.5 credits).

In addition, the program undertakes a very comprehensive evaluation process that includes one minute evaluations at the end of each teaching session and an in-depth program evaluation at the end of each module. Feedback from these mechanisms, as well as feedback from the review panel of the Office of Continuing Education and Professional Development, is incorporated into the Program's annual planning and improvement activities.

Overall the program has been very well received. For example, in the 2010 final evaluation 88% of respondents rated the Quality of the Syllabus as Very Good(4) or Excellent (5); 94% rated the Quality of the Faculty as Very Good(4) or Excellent (5); and 79% rated the Personal Relevance and Usefulness of the Course as Very Good(4) or Excellent (5).

- "This Program has helped me tremendously in my role as Department Chief"
- "Excellent course; inspired my interest in leadership"

III. Clinical Epidemiology Institute

PROGRAM DESCRIPTION

Established in 2009, the Clinical Epidemiology Institute provides a practical introduction to the principles and tools of evidence-based medicine, with particular emphasis on the development of critical appraisal skills. The program is offered on an annual basis and is targeted at clinicians, health services decision makers, industry representatives and novice researchers. The class size is limited to a maximum of 32 participants.

PROGRAM OBJECTIVES

The program is offered by renowned clinical epidemiology faculty from HPME and strives to develop skills to critically appraise a range of clinical research studies; gain basic quantitative skills and a conceptual understanding of analytical methods used in clinical epidemiological research; and take a research question from the "idea" to the early stages of a research protocol. The major program objectives are to ensure that program graduates can:

- Use the techniques of evidence-based medicine to critically appraise clinical research
- Describe various study designs
- List basic statistical concepts used to analyze quantitative health data
- Describe various study designs
- Evaluate the usefulness of a diagnostic test using various measures
- Know the process of systematic reviews, meta analyses and how data can be synthesized to determine clinical practice guidelines
- Construct a focused research question as the first step in study design
- Develop a concept sheet for a research question

CURRICULUM AND PROGRAM DELIVERY

The program is offered on campus, over a five day period. Each day includes two classes in the morning and three classes in the afternoon. Detailed course schedules are presented below:

Day 1

- An introduction to the principles and tools of evidence-based medicine
- Bias and its impact on study validity
- Understanding cohort and cross sectional studies
- Introduction to research ethics (concurrent session)
- Power searching: techniques to enhance your literature search (concurrent session)
- Using administrative databases for research (concurrent session)
- Developing your critical appraisal skills: A facilitated discussion and review of a cohort study

Day 2

- Introduction to qualitative research
- Understanding case control studies
- Introductory and advanced statistics: demystifying p values, confidence intervals, odds ratios, relative risk, survival analysis and regression analysis (concurrent sessions)
- Developing your critical appraisal skills: A facilitated discussion and review of a case-control study

Day 3

- Measuring results (concurrent session)
- Decision analysis: examining difficult decisions and tradeoffs (concurrent session)
- Understanding methodology: randomized controlled trials
- Developing a concept sheet: the first step in study design
- Developing your critical appraisal skills: A facilitated discussion and review of a randomized controlled trial

Day 4

- Clinical prediction rules: when and how to use them (concurrent session)
- Health economics: how to think about costs and benefits in health care (concurrent session)
- Health outcomes: understanding clinically important outcomes
- Presentation and review of concept sheets
- Developing your critical appraisal skills: A facilitated discussion and review of an outcome study

Day 5

- Effective approaches to knowledge translation (concurrent session)
- Assessing diagnostic tests: sensitivity/specificity, likelihood ratios and advanced methods (concurrent session)
- Summarizing and synthesizing evidence: practice guidelines, systematic reviews, meta-analysis
- Developing your critical appraisal skills: A facilitated discussion and review of a systematic review and meta-analysis

FACULTY

Program faculty are selected for their expertise in clinical research and involvement in evidence based medicine. They include university-based academics and clinical epidemiologists and health care researchers, allowing for a blend of theory and practice within the classroom setting.

QUALITY ENHANCEMENT

This Institute meets the accreditation criteria of The College of Family Physicians of Canada and has been accredited for up to 33 Mainpro-M1 credits. In addition, the Institute is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification program of The Royal College of Physicians and Surgeons of Canada, approved by the University of Toronto (33 Section 1 credits).

The program undertakes an extensive self evaluation process which includes one minute evaluations at the end of each teaching unit and a more in-depth evaluation at the conclusion of the program. Feedback from these evaluation sources is incorporated into the Institute's annual planning and improvement activities.

Overall, the Institute has consistently received positive feedback from participants.

- "What I learned this week will be very applicable to the health and safety research analysis I need to do on a daily basis"
- "Extremely knowledgeable and capable teaching staff. I am encouraged to pursue my epidemiology education further. Great value of time and money"
- "Such a great breadth of information. I am leaving with a considerable amount of knowledge & confidence with this material that I did not have - I had some epidemiology but this program added value to my skill & knowledge base"

B. COLLABORATIVE PROGRAMS

In addition to research and professional degree programs, HPME participates in a range of unique, non degree granting, collaborative graduate programs. These innovative programs emerge from cooperation between two or more graduate units, often from across multiple Faculties, providing students with a broader base from which to explore a novel interdisciplinary area or a special development in a particular discipline, to complement their degree studies. A student must be admitted to and enrolled in one of HPME's graduate programs and must fulfill all the requirements for that degree, in addition to the requirements of the collaborative program. On successful completion of requirements for the collaborative program, a notation is added to the student's transcript and the student receives a parchment signifying his/her completion.

Currently, HPME participates in 9 Collaborative Programs, two of which they lead. The Collaborative programs available to HPME students are as follows:

i. **Aging, Palliative & Supportive Care across the Life Course:**
This Collaborative Program prepares students for specialization in the field of aging, a field that includes individual human aging, with an emphasis on viewing aging issues within the perspective of the life course. Two core courses (1 required) are offered through the Center for Studies in Aging, and elective courses (1 required) are available through affiliated graduate departments, faculties and institutes within the University of Toronto. As of September 2006, the Collaborative Program offered students two options of study:

- Aging and The Life Course
- Palliative and Supportive Care

ii. **Bioethics:**
Introduced in 1994, the Collaborative Program in Bioethics (CPB) prepares students who want to specialize in bioethics, with an emphasis on innovative interdisciplinary research and scholarship. Innovations in basic and clinical science often raise profound ethical issues for which appropriate answers and optimal solutions currently do not exist but that are capable of being better understood through rigorous applied research. Students are expected to conduct innovative research in relation to the discipline of their home departments, and to have a working knowledge of selected bioethical issues from the current viewpoint of each of the other relevant disciplines.

iii. **Cardiovascular Sciences:**
The Cardiovascular Sciences Collaborative Program was created to develop co-operative and joint graduate teaching and research opportunities across departmental boundaries under the Faculties of Dentistry, Medicine, Nursing, Pharmacy and Physical Education and Health. The purpose of this Collaborative Program is to increase the visibility of cardiovascular studies and facilitate interdisciplinary training and research. The Program offers diverse areas of training including 2 major streams of studies: Cardiac and Vascular.

iv. **Dynamics of Global Change:**
New in 2008, the Dynamics of Global Change (DGC) is a multi-disciplinary program offered by the Munk School of Global Affairs. This Collaborative program allows students to explore the frontiers of global change across a wide range of issues. In a rapidly evolving, complex, and loosely structured global system, it is essential to understand the sources, structure and pace – in short, the dynamics – of change. Students in this program explore questions from their own disciplines, and as well as through the kaleidoscopic perspective created by multi-disciplinary collaboration.

v. **Global Health:**

The Collaborative Doctoral Program in Global Health (CPGH) is sponsored by the Dalla Lana School of Public Health (DLSPH). Global health is viewed as an integrative construct that focuses on the inter-relationships between local, regional, national and international factors influencing health and effective interventions and policies that will address these factors. Students in this program are expected to conduct research in their home Departments that will contribute to improving the well-being of people in Canada and around the world through advanced research in global health.

vi. **Health Care, Technology & Place:**

This Collaborative Program is intended to prepare doctoral students to understand, explain, and improve health outcomes associated with geographically dispersed and technologically mediated health care services, and to bridge knowledge gaps among doctoral students in the life sciences, physical sciences, social sciences, and humanities who are concerned with the interconnectedness of bodies, technologies, places and work in the 21st Century health care.

Students admitted to the Collaborative Program must complete an HCTP half course, attend the HCTP seminar series and participate in the Annual HCTP Interdisciplinary Research Workshop, as well as prepare a dissertation with an HCTP emphasis.

HPME is the lead Department for this collaborative program.

vii. **Health Services & Policy Research:**

This program is offered through the Ontario Training Centre in Health Services and Policy Research (a CIHR/CHSRF funded initiative), and is a consortium of six Ontario Universities (Lakehead, Laurentian, McMaster, Ottawa, Toronto and York Universities). Its overall goal is to increase health services research capacity in Ontario, especially Northern Ontario. Specific objectives of the program include: 1) providing training in health services research for graduate students, 2) enhancing the quality and breadth of trans-disciplinary training in health services research, and 3) including decision makers as active partners in teaching, program and curriculum planning, as well as the provision of field placements for students.

Students admitted to the Collaborative Program must complete a policy or research practicum, participate in a Summer Institute and complete an additional half course credit to their required degree requirements, in addition to completing a dissertation or thesis on a health services and/or policy topic.

HPME is the lead Department for this Collaborative Program.

viii. **Women's Health:**

The Collaborative Program in Women's Health provides interdisciplinary training in women's health research and practice for both Master's and Doctoral students. The Program is designed to:

- Help students develop a shared understanding of the complex interactions of biology and environment, sex and gender,
- Provide a shared skill set to undertake and lead interdisciplinary, collaborative health care research projects, and
- Enhance mutually beneficial relationships among researchers and practitioners of women's health across the University and its affiliated teaching hospitals

One core course is required along with participation in a monthly seminar series and in the annual Graduate Student Research Day hosted by the Women's College Research Institute. Students develop a study plan (including a plan for their dissertation when required by their home participating unit) in conjunction with their graduate supervisor and a co-mentor from the Collaborative Program faculty.

ix. **Women and Gender Studies:**

The Graduate Collaborative Program in Women and Gender Studies (CWGS) provides students with an opportunity for advanced feminist studies in concert with a MA or PhD degree in another discipline. The program offers an interdisciplinary environment in which to grapple with how gender and sexuality is tangled with questions of race, citizenship, embodiment, colonialism, nation, global capitalism, violence, aesthetics, and other pressing concerns.

The CWGS is administered by the Women and Gender Studies Institute (WGSI). The CWGS brings together 34 graduate programs, more than 100 courses, and over 100 graduate faculty members across several faculties. Participants must complete 4.0 full course equivalents, including 2.0 FCE core courses in Women and Gender Studies.

Full information on all Collaborative Programs can be found at:
http://www.gradschool.utoronto.ca/programs/collaborative.htm

C. UNDERGRADUATE MEDICAL EDUCATION

PROGRAM DESCRIPTION

The objectives for the Undergraduate Medical Education program (UME) in the Faculty of Medicine are focused on training students in seven competencies. Manager is one of these competencies and the UME curriculum for these competencies is organized under the Manager Theme. This curriculum works across four years of medical education and provides a continuity of the educational experience as students move from year to year. HPME has taken the lead in developing and delivering this Theme.

PROGRAM GOALS AND OBJECTIVES

The program goal is to create the educational experiences required for medical students to develop competencies as managers.

Objectives

- Participate effectively in health care organizations, ranging from individual clinical practices to Academic Health Sciences Centers
- Describe the governance, structure, financing, and operation of the health care system and its facilities
- Apply a broad base of information to the care of patients in ambulatory care, hospitals and other health care settings
- Describe the rationale for wise stewardship of available resources
- Help to build better teams
- Describe how population based approaches to health care services can improve medical practice
- Participate in planning, budgeting, evaluation and outcome of a patient care program
- Participate in innovative approaches to clinical care

STRENGTHS AND CHALLENGES

This is a new section of the UME curriculum. The curriculum has been developed and implemented over the last 4 years. It builds on some previous curriculum elements on health policy and evidenced-based medicine that were part of the previous Department of Community Health (DOCH) curriculum. It involves traditional large-group lectures that are the mainstay of the pre-clerkship curriculum but also involves new teaching methods and approaches. The students work in groups, are involved in simulation exercises and take online courses as part of this new curriculum. Team work, quality improvement and patient safety as well as information management are covered in the curriculum.

Historically, the manager theme did not have a course that served as a “home” for the content and the curriculum was delivered in sessions provided by various course directors. The restructuring of clerkship has led to this theme having a course – Transition to Clerkship (TTC) – that provides a venue for much of the content. As well, the plan is to have a specific week-long block provided in another new course – Transition to Residence (TTR). The pre-clerkship content is still provided in sessions in other courses.

The use of innovative methods for delivering content does raise some risks as these are not often used at this medical school and in many cases have to be adapted from other settings. Students are not always receptive to new teaching methods and at times find it hard to see the relevance of education that is not specifically clinical or basic science in nature.

CURRICULUM PROGRAM AND DELIVERY

The development of the Manager Theme curriculum for the undergraduate medical program was driven by a review of the curriculum that was undertaken 4 years ago. This review was in part a response to the Accreditation Review of the UME program that had highlighted the need to ensure that the curriculum was consistent with the UME objectives. The review was asked for by the Vice-Dean of UME and the results of the review and recommendations for change were presented to and approved by the UME Curriculum Committee.

Year 1			
Component	**Lecture**	**Lecturer(s)**	**Learning Objectives**
CanMeds	Introduction to CanMeds & the Role of a Physician as a Manager	Dante Morra	– List the CanMed objectives and have examples of how they apply to the practice of medicine – Understand of all the Manager objectives and have examples of their application
	The Physician as a Manager & an Introduction to Teams	Dante Morra	– Understand the difference between groups and teams – Understand the evolution of teams and describe a framework for team development – Understand differing team roles – Provide examples of different healthcare teams – Understand the different methods of facilitating team growth
Health System & Roles	The Structure & Function of the Canadian Health System: How we got here & Where we are going	Geoffrey Anderson	– Describe the historical development of the governance, structure, financing and operation of the Canadian health care system and understand how that has influenced patient care and shaped the roles of physicians – Describe the Canadian health care system in relation to other health care systems – Understand some of the key issues facing Canadian health care
	Policy Making and the Role of Physicians as Policy Makers and Advocates		
CMA1	Leadership Module I: Personal Leadership and Emotional Intelligence	Andrew Browne	– Define leadership – Distinguish between leadership and management – Discuss individual and organizational values – Discuss six leadership styles – Explore own leadership style define emotional intelligence – Assess own emotional intelligence – Develop strategies to increase emotional self-awareness
	Career I: Career Planning	Valerie Watt	– Understand the process of career selection in medicine – Have a framework to approach career selection
CF & IP Team	Interprofessionalism Activity	Cynthia Whitehead	– Be provided with a patient centered example of a functional team in operation
	Cystic Fibrosis Day	Liz Tulis	– Understand different team member's roles in the care of CF patients

Carter Racing	Teamwork: Applied Case Studies	Dante Morra	– Complete first team-based case
	Team Dysfunction I	Dante Morra	– Describe and provide examples of team dysfunction – Define groupthink and provide examples of groupthink in the clinical environment
	Team Dysfunction II	Dante Morra	– Describe the historical development of the governance, structure, financing and operation of the Canadian health care system and understand how that has influenced patient care and shaped the roles of physicians – Describe the Canadian health care system in relation to other health care systems – Understand some of the key issues facing Canadian health care

Year 2			
Component	**Lecture**	**Lecturer(s)**	**Learning Objectives**
Patient-Centred Care	Norm vs. Cancer	Rob Hawke	– Understand the principles of patient-centred care – Illustrate the importance of patient-centred care and provide real-life examples of concepts
	PCC Lecture	Petrina McGrath	
CMA2 Part I	Team Leadership	Mark Bonta	– Recognize the critical elements that contribute to an engaging workplace – Identify the 5 Drivers of Emotional Engagement & Their Related States of Being – Contrast the difference between Rational and Emotional Engagement – Identify the 6 Principles of Influence (CLASS-R) – Apply your understanding of Engagement and Influence to personal and professional situations
	Managing Conflict	Mark Bonta	– Define conflict – Differentiate between different types of conflict – Develop an approach to managing conflict in an organization and between individuals – Apply the model of Appreciative Inquiry to conflict situations – Determine your personal style as a leader based on the Thomas Kilmann Conflict Mode Instrument – Identify strategies to minimize the possibility of conflict – Distinguish the Five Conflict Handling Modes and their application within conflict situation – Differentiate between constructive feedback and criticism – Develop a model of Creative Collaboration to address conflict
CMA2 Part II	Health & Personal Growth	Dante Morra	– Understand the implications of research in the current health status of physicians – Understand the vulnerabilities of physician and prevalence of health problems experienced by physicians – Distinguish some of the signs and symptoms of physician distress, including disruptive behaviour, and the impact on professional colleagues and others – Indentify early responses to a colleague in need – Appreciate the key role which self-awareness plays in wellness
	Career II: Physician Payment & Career	Rob Sargent	

	Options		– Employ stress management techniques – Use the skills that improve and maintain personal resilience, health and well-being – Recognize the impact of creating a healthy work environment – Recognize the positive impact of debt management and time management skills on health and well being – Have an approach and understanding of physician career options and payment

Year 3			
Component	**Lecture**	**Lecturer(s)**	**Learning Objectives**
Introduction to TTC	Welcome to Transition to Clerkship	Geoffrey Anderson, Dante Morra	– Understand the CanMeds roles and professional expectations – Understand the key objectives of the manager curriculum in DOCH-3 – Understand what they are expected to do as part of this curriculum – Know how they will be evaluated
Teamwork	Lean Process Improvement & Introduction to Lakeview Simulation	Dante Morra	– Understand the framework for working in teams and LEAN theory – Be prepared for Assignment 1
	Teamwork I & II	Dante Morra	– Understand the attributes of high performing teams in healthcare. – Understand the Kotter framework for change management – Apply the Kotter framework to a simulated healthcare problem in the Lakeview simulation – Work closely with a new team and complete team activities
	Lakeview Simulation	Dante Morra	– Know key principles of change management – Be able to review team charters and hold stakeholder interviews – Apply change management principles in the Lakeview simulation
Manager Portfolio		Kenneth Locke	– Know how to create a portfolio
Collaborator and IPE	Medication Safety Safe Order writing	Cynthia Whitehead, Olavo Fernandes, Ed Etchells, Lawrence Jackson, Anne Matlow	– To develop a structured approach to analyzing medication error. – To practice these analytic skills through interprofessional small group case-based discussion. – To recognize the importance of interprofessional collaboration in avoiding medication errors and enhancing safe medication prescribing.
Quality Improvement and Safety	Introduction to Quality & Safety	Geoffrey Anderson	– Understand what quality of care is – Be familiar with common approaches to measuring quality of care – Understand some of the key issues related to quality of care in Ontario – Understand the basic principles of CQI
	Introduction to IHI Modules	Geoffrey Anderson	– Be familiar with Institute for Healthcare Improvement's online open-school and know the courses required for DOCH3

			– Gain expertise in quality improvement methodologies and patient safety before they enter a clinical setting
CAM	Complementary and Alternative Medicine - EBM	Heather Boon	– Understand why patients use complementary/alternative medicine (CAM) – Describe the role of the physician with respect to CAM – Apply evidence-based medicine to consideration of CAM – Describe use of CAM by Canadians – Differentiate between regulated and unregulated CAM practices
Medical Legal	Lecture	Joseph Colangelo	– To develop an awareness of the difference between legal reasoning and ethical/professional reasoning – To understand that the law helps to define our professional duties and responsibilities – To provide a model for how lawyers and physicians may work together as colleagues
	Seminars	Pier Bryden	– Apply material learned
T RES		Anita Rachlis	– Familiarize with TRES
Patient Safety	Introduction to Patient Safety	Kaveh Shojania	– Understand the epidemiology or patient safety problems (how often patients experience avoidable harms from their medical care, and the common ways in which this occurs) – Recognize high risk situations – Appreciate some practical strategies for avoiding common errors
	Case Presentation 1	Kaveh Shojania, Anne Matlow, Ed Etchells, Chris Hayes	
	Case Presentation 2	Kaveh Shojania, Anne Matlow, Ed Etchells, Chris Hayes	
	Safe Order Writing	Ed Etchells	– Learn how to order patient prescriptions in a concise and consistent manner to reduce the risk of error
Manager Wrap-Up		Dante Morra, Mark Bonta, Fran Scott	– Know the key items learned throughout the 3-week DOCH3 session
Public Health/Outbreak & Population Health	Lecture	Fran Scott/Gary Bloch	– Understand the structure and role of public health units – Familiarize with concepts of line listing, epidemic curve, control measures – Know the main methods to control an outbreak – Know the role of physicians in reporting diseases – Be aware of the concept of risk assessment from infectious diseases
	Seminars	Tutors	
Patient Communication and Decision Making		Geoffrey Anderson, Wendy Levinson	
		Wendy Levinson Irfan Dhalla	
Advocacy	Diversity and cultural sensitivity	Lisa Richardson	– To define and understand the terms diversity and shared decision-making as they pertain to a health care setting. – To identify factors in a patient's background that may influence their

			health care choices, including barriers to receiving care
EBM	Overview of Managing information	Geoffrey Anderson	– Understand the objectives and framework for the information management sessions in TTC – Know what a randomized controlled design is and what are its strengths and weaknesses – Know a series of questions they can use to assess the validity of a randomized controlled trial – Understand how to assess the importance of the results of a randomized controlled trial – Know what a meta-analysis or systematic review of randomized controlled trials is To understand the basic principles of EBM – Understand how to assess the validity and importance of a meta-analysis
	Diagnosis I	Katina Tzanetos	– Know the strategies for assessing evidence of screening and diagnostic tests (e.g. principles of screening, calculation of sensitivity, specificity and likelihood ratios, pre-and-post-test probabilities) – To review the strategies for assessing evidence of screening and diagnostic tests
	Diagnosis II	Katina Tzanetos	
	EBM – Randomized controlled Trial Evidence	Geoffrey Anderson	
	Review of Basic EBM	Geoffrey Anderson	
	Introduction to managing information	Geoffrey Anderson	
	Searching using Library Resources	Rita Vine	– Familiarize with clinically relevant databases for synthesized literature
	Informatics Point of Care	Trevor Jamieson Mindy Thuna	– Apply the EBM learning in a clinical context – The session will begin by allowing students to locate and evaluate evidence to address a clinical scenario within a realistic time frame. Discussion of the search strategies used and the results found will be dissected from the perspective of how real-time and real-life clinical situations don't map easily to the model search strategy.

Year 4 – Under development			
Component	**Lecture**	**Lecturer(s)**	**Learning Objectives**
Manager	Error – Communication, systems vs. individual	Anne Matlow	Under development
	Transfer of Care	Anne Marie McKenna	Under development
	Shape it, don't take it.	Dante Morra	Under development
	Physician Supply	Geoffrey Anderson	Under development
IPE/Collaborator	Conflict	Cynthia Whitehead	Under development

ASSESSMENT OF LEARNING

All sessions are evaluated by students using the standard MedSys evaluation tools. Special surveys to look at the components of the Manager Theme curriculum have also been developed.

QUALITY ENHANSMENT

The goal over the next 3 to 5 years is to solidify and formally evaluate the Manager Theme content over all 4 years including the new content in TTC and TTR. At the same time the plan is to expand the theme/competency model to include other related themes – Collaborator, Advocate and Professional – to create a curriculum organization that works on training in all of these "non-clinical" competencies in a systematic and coordinated fashion.

D. LEAD PROGRAM

PROGRAM DESCRIPTION

A Leadership Education and Development Scholarship Program (LEAD) directed towards undergraduate medical students with a particular interest and aptitude for leadership was launched this fall, spearheaded by Dr. Geoffrey Anderson. The program consists of courses, networking opportunities, and experience working on real projects as part of summer placements and electives. The LEAD program represents an innovative collaboration between the Undergraduate Medical Education in the Faculty of Medicine, the Department of Health Policy, Management, and Evaluation, the School for Public Policy and Governance, and the Rotman School of Management, LEAD is designed to nurture, promote and support leadership skills in medical students so that they will have the skills and knowledge to take up academic and public service leadership positions over the course of their careers.

LEAD is:

- A fully-funded innovative, multi-disciplinary program for the development of advanced leadership skills in select medical students.
- A chance for students to spend part of their summers working with health care leaders on important projects in a range of settings and locations
- A program that is designed to be flexible and sensitive to students' learning needs, time constraints and career priorities
- An opportunity to learn and work with other students at the university who want to be leaders

The program provides full funding for a four-year integrated curriculum of six courses in healthcare leadership across three graduate programs (Department of Health Policy, Management, and Evaluation, the School for Public Policy and Governance, and the Rotman School of Management), and two paid summer practical experiences, plus networking opportunities.

The LEAD program was started this year with 8 students enrolled, selected from a pool of 18 applications from the first year medical school class.

PROGRAM OBJECTIVES

The main objective of the program is to prepare medical students to be physician leaders. The mission of the program is to:

- Set the standard for leadership education and development for medical students
- Equip the graduates with the foundation of skills and experience necessary to realize their full potential as local, national and international healthcare leaders
- Train future leaders in health care who are committed to improve health care and the health of our communities.

5. RESEARCH

HPME's research goal is reflected in its mission to "provide leadership in understanding and improving the financing, organization, delivery and outcomes of health services and clinical intervention." This is accomplished through the establishment of departmental foci as defined in the strategic planning process as well as individual faculty interests and funding opportunities. The six foci include: health policy and system performance; health economics and health technology assessment; quality and patient safety; e-health and health informatics; clinical evaluation and effectiveness and health care research; and, leadership, management and knowledge translation.

The Department received more than $8.356 million in research funding in 2009-2010. Its funding for research has grown over the years, with its total budget almost tripling from 2000 to 2009. However, these funds do not represent the total funding of full-time faculty as some grants are administered through Research Institutes especially in a co-principal Investigator situation. Table 19 summarizes the research and scholarly activity of the paid faculty as well as the CEHCR Program Director. The total dollar amount of grants obtained by faculty in both a PI/Co-PI and Co-investigator role since 2006 and their number of publications and presentations is also included. Generally, where the PI is a core faculty member in HPME grants are administered through HPME. However where the faculty member is a co-PI, grants may be administered at another site i.e. Research Institute or another University. Chart 3, Chart 4 and Table 20 describe the percentage of dollars administered through HPME.

The Department's research covers three domains of health care – clinical, organizational and policy – and plays an important knowledge translation role by making evidence available to decision-makers and the public. A unique feature of HPME's research program is its transdisciplinary nature, with research teams drawn from departments and units across and beyond the University.

A detailed list of grants obtained by core faculty whose end dates were beyond 2006 is provided in Appendix 5.A.I. – Award by Project Name and Amount, including the particular focus of the research grant.

Table 19: Listing and Description of Program Research and Scholarship Activity: 2006-2011

Fulltime Faculty plus CEHCR Program Director	Competitive Grants				Publications				Presentations	
	Grant Awarded as PI/Co PI		Grant Awarded as Co-Investigator/ Collaborator		Refereed & non-refereed Books/Chapters published	Monographs/ Reports Published	Refereed Journal articles published	Other publications	Paper / Poster Presentation	Invited lectures/ presentations
	#	Amount	#	Amount	#	#	#	#	#	#
A. Paul Williams	13	$ 3,981,464.00	2	$ 411,000.00	0	13	15	2	7	129
Ahmed Bayoumi	11	$ 2,372,641.00	24	$ 38,468,276.50	0	1	45	0	0	21
Allan Steven Detsky	0	$ -	0	$ -	0	0	20	32	0	21
Audrey Laporte	4	$ 760,856.86	8	$ 4,636,293.67	3	0	29	7	62	9
Aviv Shackak	2	$ 180,289.00	2	$ 114,100.00	2	1	13	0	0	14
Fiona Miller	7	$ 2,295,836.48	10	$ 19,229,416.20	0	5	31	6	21	34
G. Ross Baker	15	$ 5,862,451.21	13	$ 4,978,949.76	8	4	39	5	0	96
Geoff Anderson	18	$ 5,615,149.33	0	$ -	0	0	34	1	0	11
Janet M. Barnsley	3	$ 494,264.00	9	$ 7,717,725.00	0	4	13	0	12	1
Kevin Leonard	4	$ 180,900.00	2	$ 233,047.62	0	0	35	0	34	44
Louise Lemieux-Charles	6	$ 9,315,000.00	8	$ 5,610,030.50	1	4	15	0	4	5
Peter Coyte	12	$ 6,963,498.00	9	$ 4,223,704.00	1	7	58	0	0	36
Raisa Deber	5	$ 3,210,360.00	14	$ 4,194,015.00	15	4	40	0	70	69
Rhonda Cockerill	2	$ 3,045,000.00	1	$ 297,611.00	0	1	13	0	8	4
Tina Smith	0	$ -	0	$ -	0	1	0	0	0	10
Tony Culyer	0	$ -	2	$ 714,220.00	3	7	46	0	0	0
Twylla B. Bird-Gayson	2	$ 15,000.00	0	$ -	0	1	0	0	0	0

Walter P. Wodchis	7	$ 2,892,167.00	7	$ 2,611,538.00	0	3	18	0	33	26
Whitney Berta	3	$ 223,994.40	10	$ 2,146,506.80	0	0	18	4	20	5

TABLE NOTES:

- Louise Lemieux-Charles shares $1,625,209 grant with Walter Wodchis.
- Louise Lemieux-Charles shares $6.2 Million grant, Toronto Health Economic and Technology Assessment Collaborative (THETA), sponsored by Ministry of Health and Long Term Care, with M. Krahn.
- Raisa Deber shares $2,375,111 grant with A. Paul Williams.
- Raisa Deber shares $360,156 grant with Janet Barnsley.
- Walter Wodchis shares $1,759,976 grant with Louise Lemieux-Charles.
- Walter Wodchis and Audrey Laporte share $276,642 grant.
- Funding before reporting period has been prorated from Appendix 5.A.III.

Table 20: Summary of Grants Administered by % Within and Outside Department for PI/Co-PI

Summary	2005/06	2006/07	2007/08	2008/09	2009/10
Administered Outside Department	4.10%%	16.29%	9.04%	21.25%%	29.10%
Administered Within Department	95.90%	83.71%	90.96%	78.75%	70.90%

CHART 3: Awards Administered Within vs. Outside Department

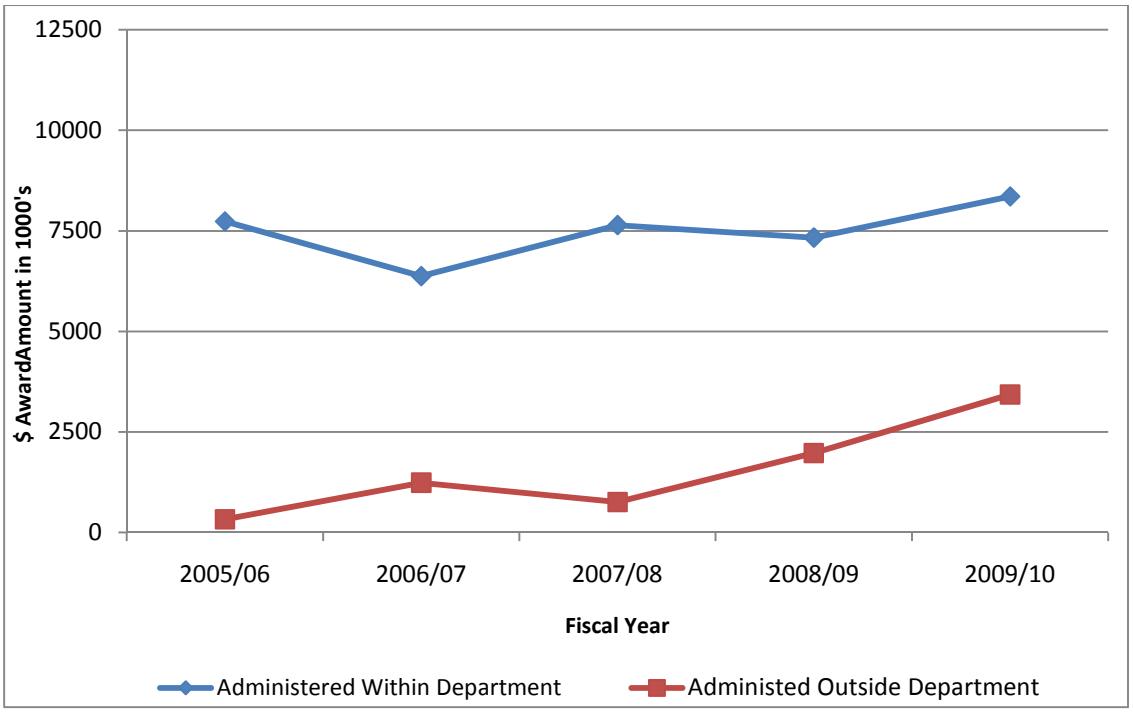
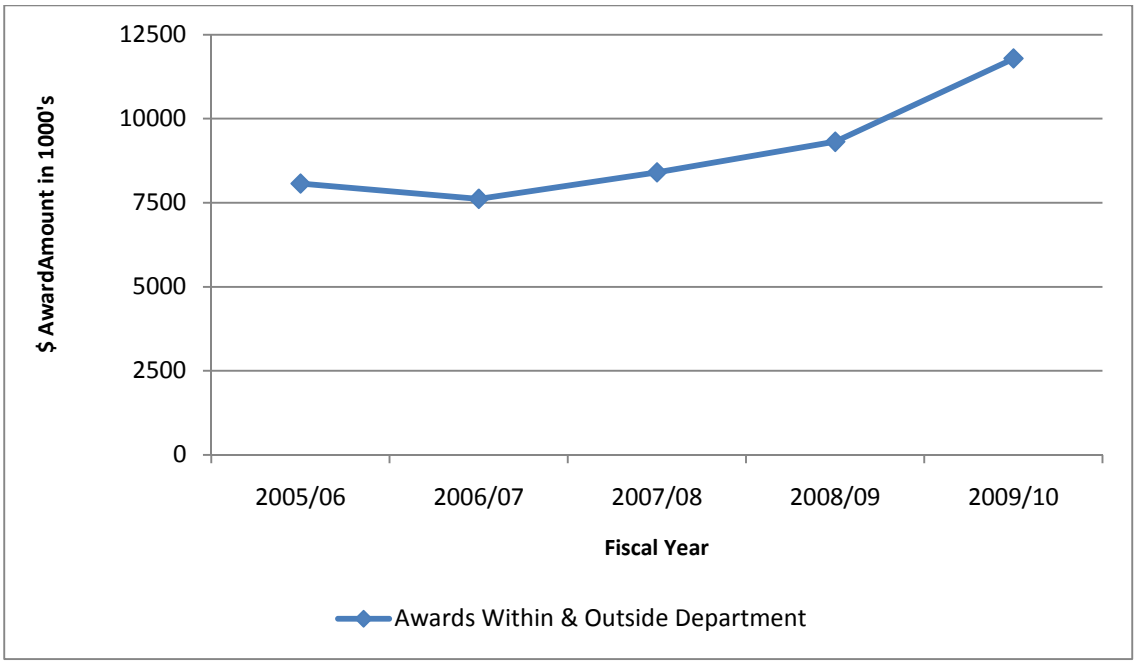


CHART 4:
Awards Administered Within Department plus Administered Outside Department



RESEARCH INFRASTRUCTURE

Examples of major interdisciplinary research infrastructure programs which include collaborations and partnerships with faculty within the Faculties of Medicine, Nursing, Engineering and Pharmacy as well as faculty members from other universities within Ontario and across Canada include the following:

- The Toronto Health Economics and Technology Assessment Collaborative (THETA) (www.theta.utoronto.ca)

  Established in 2007, the Toronto Health Economics and Technology Assessment Collaborative (THETA) is a multidisciplinary research collaborative that supports effective health policy through research, training and the provision of decision support to the Medical Advisory Secretariat in the MOHLTC and the Ontario Health Technology Assessment, an advisory committee to government. In addition, its role is to enhance capacity in HTA through graduate programs at the University of Toronto. Partners comprise faculty from HPME (co-PI) and the Leslie Dan Faculty of Pharmacy (co-PI), with collaborations from Cancer Care Ontario and the University Health Network.

- Health System Performance Research Network (HSPRN) (www.hsprn.ca)

  The Health System Performance Research Network (HSPRN) is a multi-university and institution collaborative focused on measuring system performance across the hospital, complex continuing care, long term care and home/community care sectors. Scientists and graduate students affiliated with this network come from a variety of universities and organizations including the University of Toronto (with HPME as lead organization), University of North Carolina at Chapel Hill, the Toronto Rehabilitation Institute, the Ottawa Hospital Research Institute, the University of Waterloo, the Centre for Addiction and Mental Health and the Institute for Clinical and Evaluative Sciences.

- Community Care and Health Human Resources (CCHHR) (www.teamgrant.ca)

  The Community Care and Health Human Resources (CCHHR) research agenda addresses the need for better evidence concerning two key elements affecting, and being affected by, the shift of care between hospitals and home/community. Both have been identified as of high priority, nationally and internationally. Partners include researchers from McMaster University, the Michener Institute of Applied Health Sciences, Ryerson University and University of Ontario Institute of Technology.

- Institute for Clinical Evaluative Science (ICES@UofT)

The Institute for Clinical Evaluative Sciences (ICES) was founded in 1992 with a mandate to conduct health services and health care research. ICES is funded by the MOHLTC and has approximately 150 faculty (university appointed) and staff, involved in more than 100 research projects. The areas of research encompass assessment of care delivery, patterns of service utilization, health technologies, drug therapies and treatment modalities. The key to the knowledge produced at ICES is their ability to anonymously link population-based health information on an individual patient basis, using unique ICES identifiers that ensure the privacy and confidentiality of health information. Linked data allows researchers to obtain a more comprehensive view of specific health care issues, than could be achieved with unlinked data.

ICES satellite sites have been created to expand the capacity to generate high quality health services research at a province-wide basis. Satellite sites provide an opportunity for scientists who wish to pursue research aligning with the ICES mission to access administrative data holdings at ICES (www.ices.on.ca) from remote locations. This initiative has expanded the capacity of ICES to conduct research that contributes to the effectiveness, quality, equity and efficiency of health

care and health services in Ontario by increasing the number of scientists and the breadth of scientific expertise. The creation of these sites has necessitated that the Universities interested in collaborating with ICES develop their own model for funding the initiative as the province of Ontario, which supports the Institute's infrastructure, supported the concept of expansion in principle only. Traditionally the ICES databases have been used primarily by physicians; however, in the past decade, with the increase in interdisciplinary research, health services researchers have also begun to access the data.

In May 2008, HPME embarked on a pivotal partnership with ICES and U of T to establish an ICES satellite which is expected to increase access to data for health services and policy researchers and provide a new training resource for graduate students for careers in health services and health policy research. It will provide a formal, well organized and experienced resource for building capacity through: defined educational opportunities such as courses, masters, doctoral and post-doctoral programs; the building of HSR capacity across a range of disciplines, institutional and professional settings; and, the study of new populations, providers and methods. Spearheaded by HPME, contributing members include HPME, the Lawrence S. Bloomberg Faculty of Nursing, the Faculty of Pharmacy, the Hospital for Sick Children, Women's College Hospital, the Toronto Rehabilitation Institute, the Centre for Addiction and Mental Health, Public Health Ontario and Health Quality Ontario.

TRAINING GRANTS

HPME has taken the lead on two major training programs:

- Health Technology and Place 2 (HCTP2)

  HCTP2 is an international, interdisciplinary research and training collaborative exploring the ways in which technology has reshaped the health care landscape. HCTP2 has a particular focus on health technology assessment and thereby complements the research programs lead by THETA. At the University of Toronto, partners include HPME, and the Faculties of Applied Science & Engineering and Pharmacy. The purpose of the grant is to enhance research capacity in the area of health services research that pertains to the social, spatial and technological configurations that characterize health care.

- Ontario Training Centre in Health Services and Policy Research (OTC)

  The Ontario Training Centre in Health Sciences and Policy Research is a consortium of six Ontario universities that includes Lakehead University, Laurentian University, McMaster University, University of Ottawa, University of Toronto and York University. The establishment of the centre is a response to the need for increased numbers of health services researchers to address critical issues in effective and efficient health care delivery (which has been identified as a top priority by national research funding agencies). Its overall goal is to increase health research capacity in Ontario through a training program that builds on existing strengths in university and decision making environments.

RESEARCH IMPACT

Impact is measured through the traditional publication and citation rankings as well as faculty's leadership in the research enterprise. Appendix 5.A.II shows that U of T ranks ninth when compared to all peers, fifth when compared to public universities and first when compared with the G13[1]. Results for citations are similar to those for ranking. Journals included in the ranking are published in English.

The rankings are a measure of the performance of the U of T as a whole in the field of 'Health Policy & Services'. Though this may include scholars working in the field of Health Policy & Services outside of HPME, it is a measure of the critical mass of scholars in the domain at U of T. As described above, faculty in HPME, including status only faculty, are deeply involved in the educational and research activities of HPME.

The Department has extensive collaborations and partnerships with policy-makers, health care providers, consumers and health care organizations across a continuum of acute, chronic, primary, and long-term care, in addition to their collaborations within the University. These relationships are provincial, national and international in scope. Because of HPME`s close involvement in knowledge translation activities, a large number of monographs have been published and there is evidence of a significant number of invited presentations. Faculty publications are found in high impact journals as outlined in Table 21.

Table 21: Faculty Publications

Type	Health Services Research	Social Science and Medicine
Names of Journals	Medical Care Research and Review Health Policy Canadian Family Physician Canadian Medical Association Journal Journal Interprofessional Care BMC Family Medicine Journal of the American Medical Informatics Association Healthcare Quarterly Journal of Medical Internet Research HIV Clinical trials Chest Medical Care Annals Internal Medicine British Medical Journal Journal Health Economics Lancet Journal Health Services Research and Policy Evidence and Policy Pharmacoeconomics Implementation Science International Journal Technology Assessment in Health Care	American Journal of Public Health BMC Medical Ethics European Journal of Human Genetics Science and Public Policy Canadian Public Administration Healthcare Papers Physiotherapy Canada Supportive Care in Cancer Journal of Aging Research Spine Journal of Bone and Joint Surgery Journal of Palliative Care Journal of Clinical Epidemiology Journal Population Economics Health Economics HealthCare Policy Journal Health Economics, Policy and Law BMJ Quality and Safety Quality and Safety in Healthcare JAMA

[1] G13 member institutions include University of Toronto (and affiliate hospitals), University of British Columbia, Dalhousie, McGill, McMaster, Universite de Montreal, University of Ottawa, Waterloo and University of Western Ontario, University of Washington , University of Wisconsin, Madison and University of California at Berkeley.

RESEARCH LEADERSHIP

Faculty are engaged on Tri-Council Grant Review Committees (CIHR) and have chaired the following committees:

- Knowledge Translation Grants Review Committee (CIHR)
- Institute of Genetics and Institute of Health Services and Policy Research, Health Services for Genetic Diseases Policy and Planning Committee (CIHR)
- Humanities, Ethics, Law and Society Peer Review Committee (CIHR)
- Health Services Research and Policy Grants Review Committee.

Several faculty have been members of CIHR operating grant committees and provincial research committees including the Michael Smith Foundation, BC; the Alberta Heritage Foundation; and, the Ontario Ministry of Health and Long term Care. Internationally, there is membership on the World Health Organization Patient Safety Methods and Measures working group, a sub-committee of the WHO Patient Safety Committee.

Leadership of professional associations including chairmanship of scientific meetings have included: President and Past-President, Canadian Association of Health Services and Policy Research; Chair, Scientific Committee, Canadian Association of Health Services and Policy Research Conference; Co-Chair, IHI International Conference; Co-Chair, International Health Economics Association Conference; and Co-Chair Society Medical Decision-Making Conference. Faculty are also actively involved with the Canadian Association for Health Services and Policy Research (CAHSPR) as members of the Board and in the project seeking to define competencies for health services researchers.

RESEARCH CHALLENGES

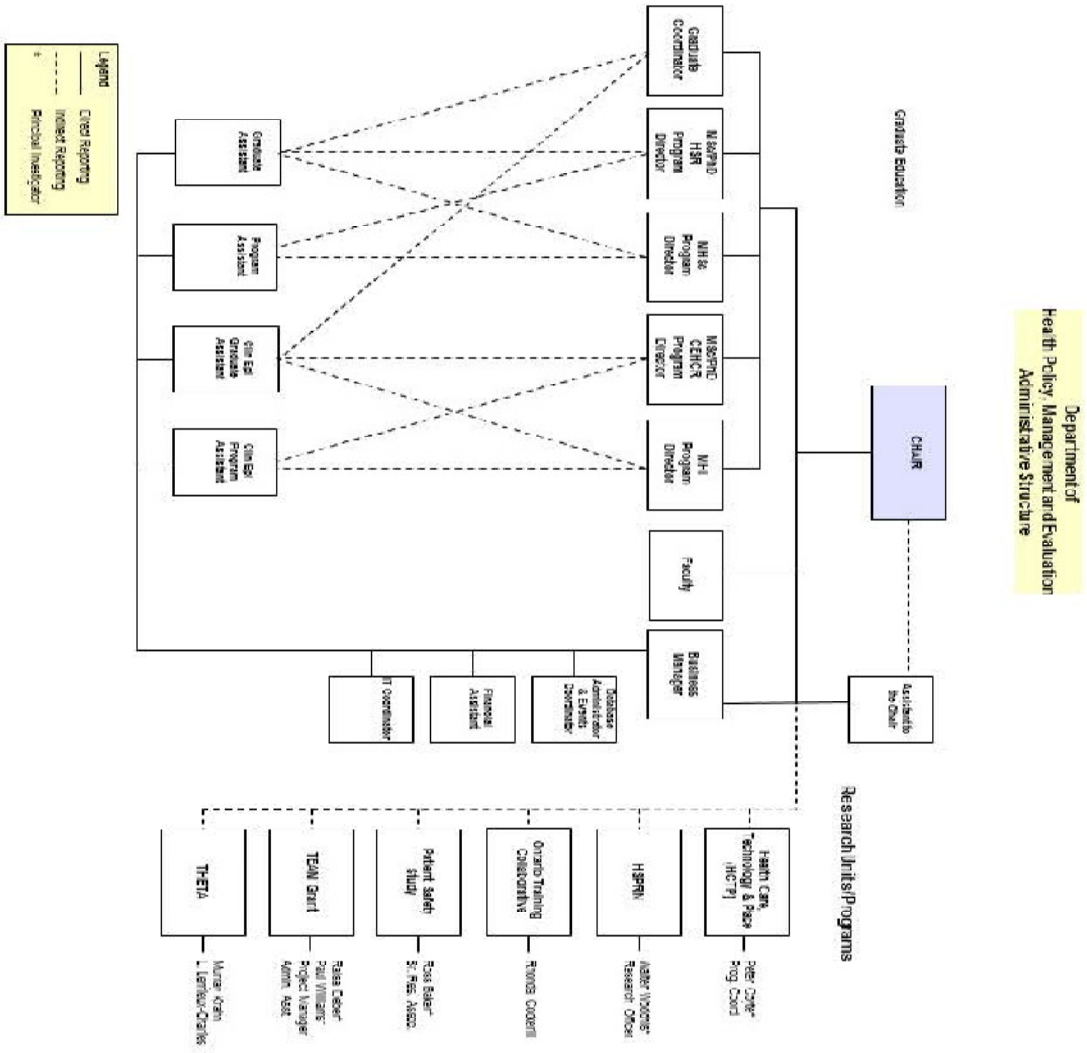
HPME faculty have expressed ongoing concern with what is perceived to be a lack of assistance with the preparation of grants. Presently, faculty who have received research monies are in a position to support some of this activity. HPME and the Faculty of Medicine provide space, interpretation of human resources policies and hiring of research staff and financial support including guidance on the interpretation of granting council guidelines and ongoing reports on revenue and expenditures. Staff dedicated to grant writing are not available. However, a new resource from the Faculty of Medicine which includes assistance with proposal writing may help address this concern.

6. ORGANIZATION AND FINANCIAL STRUCTURE

ORGANIZATION STRUCTURE

The Organization Structure of HPME is indicated in Chart 5 below.

CHART 5



FINANCIAL STRUCTURE

Revenues

Within HPME, revenues currently include:

- Base budget from the Faculty of Medicine, including graduate expansion funding and research overhead;

- Internal recoveries;
- Revenue from external programs, including the Clinical Epidemiology Institute, Physician Leadership Program and the MMI Program at the University of Toronto Mississauga.

The revenue from the base budget is linked to graduate enrolment, endowments and overhead from research and can fluctuate slightly from year to year. Recoveries within HPME include faculty secondments, joint appointments and career scientist awards. Going forward, we are working on increasing our revenue in several areas. Areas include expanded attendance in external programs and enhanced opportunities for fundraising as we evolve into the Institute of Health Policy, Management and Evaluation. Other possibilities for revenue expansion would come from additional graduate programs. Currently we are examining the possibility of a graduate program in Quality Improvement and Patient Safety.

Appendix 6.I includes a 3-year financial summary, including final reporting from 2010-2011 and projections for fiscal years 2011-2012 and 2012-2013.

Expenditures

Current expenditures for HPME include faculty and administrative salaries, as well as teaching stipends related to course delivery. Other expenditures include the mortgage payment at the Health Sciences Building, 155 College Street, and infrastructure expenses including equipment, supplies and services. Other expenditures are operating in nature for items such as postage, office supplies and telephone. Expenditures are fairly stable and are not expected to change greatly with the establishment of the Institute.

Going forward, the Institute of Health Policy, Management and Evaluation budget will continue to be monitored through the Faculty of Medicine and all revenues and expenses associated with HPME will be part of the Faculty of Medicine budget and will therefore be subject to the budgetary procedures of the Faculty. Also, the administrative complement of the Institute will be part of the complement of the Faculty of Medicine and will include academic information technology, human resources, space and facilities management.

7. RESOURCES AND INFRASTRUCTURE

COMPUTER FACILITES

All faculty in HPME have individual computers in their offices and homes, purchased either through their grants or the Department's budget, to facilitate teaching and research. Electronic communication and the internet are available centrally through the University of Toronto for all faculty, and there are printers available in HPME for faculty use.

All HPME students enrolled in a graduate program are provided with an account on the university mainframe computer. This account gives them access to electronic mail facilities, internet, statistical software packages (e.g. SPSS, STATA), scientific graphics and related software (for example, Excel). The University of Toronto has adopted BlackBoard (a web-based course tool) to support the delivery of its courses. BlackBoard has been designed to enhance communication and collaboration between

students, and between students and faculty, and to facilitate the use of web resources in course delivery. Computers and printers are available in HPME, and the UofT libraries, for student use.

HPME DEDICATED CLASSROOM

HPME, in conjunction with the DLSPH, has invested in a classroom at 155 College Street and this space is currently being used for many of its courses. The classroom has wireless internet access, plug-ins for individual computers and 20 individual computers available for course based work.

LABORATORY FACILITIES

The Department of HPME does not require laboratory space for research or teaching purposes.

Those students affiliated with the Centre of Global eHealth Innovation have access to 15,000 square feet within the University Health Network which includes the Usability Laboratory, the Multi-Tasking Simulation Laboratory, the Living Laboratories and the Global eHealth Innovation Collaboratory (collaboration + laboratory).

SPACE

Health Policy, Management and Evaluation is located at 155 College Street in the Health Sciences Building on ST. George Campus at the University of Toronto. The Department occupies approximately 1258 NASMs (Net Assignable Square Metres) of research and office space which includes approximately 250 NASMs for student space. The Department moved into this space in September 2005.

Students were extensively consulted in determining the design of the student space, and continue to play a central role in monitoring the use of the space. Currently the student space is divided into two areas. One area is reserved for quiet study. The other area has three spaces dedicated to group work as well as 15 work stations that are available for use on a daily basis. Both areas are equipped with a printer and computers for individual use. Statistical software required for coursework is available on the student computers. Students who need longer term space may apply to the Department for dedicated space for the purposes of completing their thesis or undertaking their data analysis.

8. ACADEMIC SERVICES

HPME offers a number of services and activities that contribute to the academic quality of its programs. These are outlined below.

A. Report from Library Services

The University of Toronto libraries provide a rich resource for the support of graduate study in the field of health policy, management and evaluation. Research in this subject area is cross-disciplinary and

includes health policy, outcome and evaluation assessment, clinical epidemiology, health informatics and organizational behaviour. Therefore, graduate study in health policy, management and evaluation at the University of Toronto is enhanced by the wide scope of the university library system, which through its collections and acquisitions policy supports research and teaching in all areas of the biological, health, social and behavioural sciences and the humanities.

The Chief Librarian Report is in Appendix 8.A.1.

B. Report from Student Services

All students at the University of Toronto have access to a range of services and co-curricular educational opportunities that complement the formal curriculum. Delivered centrally through Student Life and other offices, these services and programs support, engage and challenge students to reach their full potential as learners, leaders and citizens.

Students have access to comprehensive **physical and mental health care** on campus including a medical clinic, travel medicine services, immunization, contraception and sexual health education. Counseling and treatment options for psychological and emotional concerns include psychotherapy, group therapy and pharmacotherapy, as well as specialized assault counseling services.

Housing needs, including off-campus housing listings and resources for students living independently, are met through the Student Housing Service.

Coaching and education in the development of key **learning skills** – from time management to overcoming exam anxiety – is provided through the Academic Success Centre. The ASC also partners with faculty to integrate success strategies and support into the curriculum.

Students' career exploration and employment services are provided through a **Career Centre** offering resume and interview coaching, workshops, career resources, on and off-campus employment and volunteer listings, job shadowing, and career counseling.

Specialized services are provided for **international students** (orientation, advising, cross-cultural counseling), students with **disabilities** (academic accommodations, advising), students with **children or other family responsibilities** (advising, resources, subsidized child care), **aboriginal students** (academic support, financial counseling) and **lesbian, gay, bisexual and transgender** students (counseling, referrals).

Participation in **campus life** and **experiential learning** are facilitated through Hart House (clubs, committees, events), the Centre for Community Partnerships (service learning), the Multifaith Centre (interfaith dialogue, events), and the Office of Student Life (leadership development, orientation, recognition and support for student groups, activities.) **Sport and recreational facilities and programs** are provided to all students through both Hart House and the Faculty of Physical Education and Health.

C. School of Graduate Studies, Student Services [all campuses]

All graduate students at the University of Toronto have access to registrarial services and co-curricular programs at the School of Graduate Studies that assist students in meeting their academic goals.

Administrative staff at the School of Graduate Studies (SGS) provide **registrarial** services to graduate students including but not limited to recruitment, admission, orientation, registration, fees, program progress, awards/financial assistance and graduation.

The **Grad Room** is an accessible space on the St. George campus which provides University of Toronto graduate students with a lounge area and a multi-purpose space for academic, social and professional graduate student programming.

Grad Room is home to the **Graduate Professional Skills Program** (GPS). GPS is a non-academic program presented by SGS consisting of a variety of offerings that provide doctoral stream students a range of opportunities for professional skills development. The program focuses on skills beyond those conventionally learned within a disciplinary program, skills that may be critical to success in the wide range of careers that graduates enter, both within and outside academe. GPS aims to help students communicate effectively, plan and manage their time, be entrepreneurial, understand and apply ethical practices, and work effectively in teams and as leaders.

The Office of **English Language and Writing Support** (ELWS) provides graduate students with advanced training in academic writing and speaking. By emphasizing professional development rather than remediation, ELWS helps students cultivate the ability to diagnose and address the weaknesses in their oral and written work. ELWS offers four types of instruction designed to target the needs of both native and non-native speakers of English: non-credit courses, single-session workshops, individual writing consultations, and website resources.

D. HPME Seminar Series

Each year, the seminar series focuses on a different theme of relevance to the health services healthcare research community. The series features monthly presentations by leading health services researchers on their research (http://www.hpme.utoronto.ca/about/events/hsrseminar11-12.htm). The seminars are generally held monthly throughout the academic year. A list of speakers and themes from 2011 to 2008 follows:

Fall 2011 – Primary Health Care: Present & Future
Seminar Speakers **Rick Glazier**, MD, MPH Senior Scientist, Institute for Clinical Evaluative Science (ICES) Scientist, Centre for Research on Inner City Health, St. Michael's Hospital **Alba Dicenso**, BScN, MSc, PhD Professor, School of Nursing Director, Ontario Training Centre for Health Services and Policy Research McMaster University **Lisa Dolovich**, BScPhm, MSc, PharmD Research Director & Associate Professor, Department of Family Medicine Associate Professor, Departments of Clinical Epidemiology & Biostatistics and Medicine McMaster University **Ross Upshur**, MD, MSc Canada Research Chair in Primary Care Research Professor, Department of Family & Community Medicine and Dalla Lana School of Public Health, University of Toronto

Fall 2010 – eHealth Today: The Facts and the Vision
Seminar Speakers **David Wiljer** Director of Knowledge Management and eHealth Innovation for Oncology Education and Radiation Medicine Program, Princess Margaret Hospital/University Health Network Assistant Professor and Director of Continuing Education, Department of Radiation Oncology, Faculty of Medicine, University of Toronto **Sandra G. Leggat** Professor, Health Services Management & Head of School of the La Trobe University School of Public Health, Melbourne, Australia **Paul Ritvo** Associate Professor, School of Kinesiology & Health Science, York University **Alex Jadad** Founding Director of The Centre for Global eHealth Innovation **Cameron Norman** Assistant Professor, Dalla Lana School of Public Health

Winter 2011 – eHealth Today: The Facts and the Vision
Panel of TAHSN CIO's: **Anne Trafford**, St. Michael's Hospital **Lydia Lee**, University Health Network **Prateek (Teek) Dwivedi**, Mount Sinai Hospital **Sam Marafioti**, Sunnybrook Hospital **Kim Baker** Chief Executive Officer, Central LHIN **Guy Paré** Professor of Information Technologies at HEC Montreal and Canada Research Chair in Information Technology in Health Care **Anthony Jonker** Director, Hospital Business Initiatives, OHA **Dean Sittig** Associate Professor, School of Health Information Sciences, The University of Texas Health Science Centre at Houston Member, University of Texas, Houston-Memorial Hermann Centre for Healthcare Quality and Safety **Doug Gosling**, BComm, MBA **Matthew Morgan**, BSc, MD, MSc, FRCP(C), FACP, Mount Sinai Hospital

Fall 2009 & Winter 2010 – Bridging the Quality Chasm: Issues in Patient Safety and Quality of Care

Seminar Speakers

Jeffrey A. Alexander
Richard Carl Jelinek Professor of Health Management and Policy
Professor, Organizational Behaviour and Human Resources, School of business
Faculty Associate, Survey Research Centre
University of Michigan School of Public Health

Paul B. Batalden
Professor
Pediatrics, Community & Family Medicine and Dartmouth Institute for Health Policy and Clinical Practice, Dartmouth Medical School

Dr. Naomi Fulop
NIHR King's Patient Safety and Service Quality Research Centre, King's College, London

Dr. Rhona Flin
Professor, Applied Psychology
Director, Industrial Psychology Research Centre, University of Aberdeen

Sean Clarke
RBC Chair in Cardiovascular Nursing Research, Lawrence S. Bloomberg Faculty of Nursing and the University Health Network

Lorelei Lingard
Director, Centre for Education Research & Innovation
Professor, Department of Medicine, Schulich School of Medicine & Dentistry, University of Western Ontario

Fall 2008 & Winter 2009 – Hot Topics in Health Policy

Seminar Speakers

Bob McMurtry
Professor of Surgery, University of Western Ontario

Michael Chernew
Professor of Health Care Policy, Harvard Medical School

Sean Tunis
Founder and Director, Centre for Medical Technology Policy, San Francisco

Astrid Guttmann
Scientist, Institute for Clinical Evaluative Sciences (ICES)
Staff Physician, Hospital for Sick Children, Department of Paediatrics, University of Toronto

Carolyn Bennett
Family Physician and Liberal MP, St. Paul's Riding, Toronto

Tom Getzen
Visiting Professor, HPME Professor of Risk, Insurance and Health Management, Fox School of Business, Temple University

David Henry
President and Chief Executive Officer, Institute for Clinical Evaluative Sciences (ICES)

Jon Sussex
Deputy Director, Office of Health Economics, London, England

Paul Grootendorst
Associate Professor of Pharmacy, University of Toronto

E. HPME Research Day Speakers

The speakers for the annual HPME Research Day are listed below. A panel discussion is held each morning, and the keynote speaker presents in the afternoon. A Research Day planning committee with faculty and student representatives organizes Research Day, with the GSU-HPME taking responsibility for the morning panels.

The Research Day booklets are included in Appendix 8.D.1.

May 4, 2011	
Morning Session: Expert Panel Discussion	Afternoon Session: Keynote Speaker
"Ontario Health Care System: Let's Get Our Priorities Straight" **Adalsteinn Brown**, Dalla Lana School of Public Health, University of Toronto **Paul Huras**, South East Local Health Integration Network, Belleville **Andreas Laupacis**, Keenan Research Centre, St. Michael's Hospital **Jim O'Neill**, Community and Health Services Partnership, St. Michael's Hospital **Ross Upshur**, Joint Centre for Bioethics, University of Toronto	**"Politics and the Rationing of Health Care"** **Sir Michael Rawlins** Chairman, National Institute of Health & Clinical Excellence (NICE)

May 5, 2010	
Morning Session: Expert Panel Discussion	Afternoon Session: Keynote Speaker
"eHealth: Will the Promise be Realized?" **Rob Devitt**, President and Chief Executive Officer, Toronto East General Hospital **Sholom Glouberman**, Philosopher in Residence at the Kunin Lunenfeld Applied Research Unit of Baycrest Centre for Geriatric Care **Alejandro R. Jadad**, Canada Research Chair in eHealth Innovation and the Rose Family Chair in Supportive Care at the University of Toronto and the University Health Network **Jay Mercer**, Family Physician in a fully automated office in Ottawa and Medical Director of CMA	**"Experiments and Incentives in Health Care"** **Adam Wagstaff** Development Research Group(DECRG) The World Bank, Washington, DC

May 6, 2009	
Morning Session: Expert Panel Discussion	Afternoon Session: Keynote Speaker
"Mental Health Care Today: Access & Integration" **Jennifer Chambers**, Coordinator, Empowerment Council, CAMH **Paula Goering**, Director, Health Systems Research and Counseling Unit, CAMH **Michael Howlett**, President and CEO, Mental Health Commission of Canada **Silvia Mathew**, Social Worker, Regent Park Community Health Centre **Alexander Greer**, Executive Director, Ontario Mental Health Foundation **Barbara Russell**, Bioethicist, CAMH & the Joint Centre of Bioethics, University of Toronto	**"Organizing for Resilience"** **Dr. Kathleen M. Sutcliffe** Associate Dean, University of Michigan, Ross School of Business

May 7, 2008	
Morning Session: Expert Panel Discussion	Afternoon Session: Keynote Speaker
"Healthcare and the Media: A Healthy Relationship?" **Kevin Finnerty**, Ministry of Health and Long-Term Care **Lynn Moore**, Arthritis Society of Canada **Lisa Priest**, Globe and Mail **Michael Rachlis**, Health Policy, Management & Evaluation, University of Toronto **Maureen Taylor**, CBC	**"The NICE Experiment in the UK"** **Tony Culyer** Ontario Research Chair Health Policy & System Design Health Policy, Management & Evaluation, University of Toronto

May 2, 2007	
Morning Session: Expert Panel Discussion	Afternoon Session: Keynote Speaker
"Exploring Knowledge Translation in Health Services" **Andreas Laupacis**, Li Ka Shing Knowledge Institute **Jane Gibson**, Institute for Work and Health **Gloria Cardoso**, Deloitte and Touche LLP **Anu MacIntosh-Murray**, Health Policy, Management, & Evaluation, University of Toronto	**"Case Studies in the Use of Electronic Health Records for Clinical Care and Research"** **Robyn Tamblyn** Professor, Department of Medicine and Department of Epidemiology & Biostatistics, McGill University

9. INTERNAL AND EXTERNAL RELATIONSHIPS

In May 2008, the Institute of Clinical Evaluative Sciences (ICES) accepted the proposal for "ICES @UofT". HPME has taken the lead role in facilitating the partnership. The partnership will have important implications for health service researchers and graduate students who are building their careers in health services and policy research.

Within the University of Toronto, there has been a long history of collaboration related to teaching and research between HPME and Faculties such as Nursing, Pharmacy, Social Work and Information, as well as the Dalla Lana School of Public Health. Within the Faculty of Medicine, HPME has had a strong history of collaboration with other departments, including Medicine, Surgery, Family and Community Medicine, Psychiatry, Radiation Oncology, the Graduate Department of Rehabilitation Science, and others.

Partnerships with research agencies (for example, Cancer Care Ontario, Centre for Global eHealth Innovation and the Institute of Clinical Evaluative Sciences) and hospital-based research institutes have also figured prominently in the research activities of HPME. There is a network of 215 individuals who are actively engaged, at varying levels, in the educational and research mission of the Department. Many of these individuals hold their primary graduate appointment in HPME and many are leading researchers recognized internationally. Table 22 lists the institution with which these faculty members are affiliated.

In terms of education, the Department's relationships have been particularly salutary for training CEHCR students. Such students are typically based at a University of Toronto affiliated teaching hospital but receive their primary academic training within HPME. This model has led to a unique and highly competitive graduate training program where clinician scientists teach and supervise the next generation of researchers.

The professional and HSR research programs have also developed a network of adjunct faculty who occupy policy, management and consultant positions. Many are in senior level positions within their organizations including President and CEO, Vice-Presidents and Directors. These individuals are actively involved in a range of educational activities, included acting as tutors for the Health Policy course, providing guest lectures, providing mentorship to students during their practicum placements or providing guidance in directed reading courses. This involvement of adjunct faculty in HPME's educational programs has been very successful and helps students understand the relationships which exist between policy and practice.

Table 22 – Home Institutions of Status Only and Cross Appointed Faculty

Item	Institution	Number
Affiliated Hospitals	Baycrest Centre for Geriatric Care	3
	Bloorview MacMillan Health Centre	2
	Bridgepoint Health	2
	Centre for Addiction and Mental Health (CAMH)	9
	Mt. Sinai Hospital	15
	North York General	1
	Sick Kids Hospital	41
	St. Michael's Hospital	27
	Sunnybrook Hospital	25
	University Hospital Network (PMH,TGH, TWH)	39
	Women's College Hospital	6
Public Organizations	Cancer Care Ontario (CCO)	3
	Institute for Clinical Evaluative Sciences (ICES)	10
	Ontario Health Quality Council	1
	Public Health Ontario	3
U of T Units	Dalla School of Public Health	3
	Engineering	3
	Family & Community Medicine	1
	Law	2
	Joint Centre for Bioethics	2
	Pharmacy	2
	Physical Therapy	1
	Rotman School of Management	4
Other Universities	Kunming Medical College, China	1
	McMaster	2
	Queens	2
	Ryerson	1
	University of Alberta	2
	University of Manitoba	1
	University of Victoria	1
Total		**215**

10. FUTURE DIRECTIONS

Institute of Health Policy, Management and Evaluation

With the approval of HPME as an EDU-A, there will be the opportunity to engage internal and external stakeholders more formally in its strategic planning process.

Research

We have had an excellent record of attracting peer review grants as well as contracts. However, we will need to continue to monitor new research opportunities because many of the provincial and federal granting agencies have either decreased their funding envelope or terminated some programs while introducing new ones. Infrastructure grants are critical for the support of research staff and students. Faculty members are beginning to explore international opportunities for funding and new collaborations. There has been ongoing dialogue with the academics in the European community regarding opportunities to compare health system performance frameworks and carry out research on system effectiveness. Other members have formed research collaborations with colleagues in universities in China and South East Asia.

Leadership and Innovations in Teaching

The philosophy of ongoing learning has created an environment in which our MHSc graduates and others are looking for opportunities to update their knowledge and skills related to health care developments locally and globally and to expand their leadership skills. Though we have explored different models for the delivery of our programs in order to increase their accessibility, we continue to be challenged by the lack of infrastructure within the University to support innovative teaching methods. Two new graduate programs are under development. They include a Master`s in Quality Improvement and Patient Safety and a Health Leadership degree in our PhD (flex) program.

As the number of learners continues to increase through the graduate expansion initiative, monitoring the quality of our educational programs will be critical. The indicators which are presently available through the U of T augmented by our own surveys form the basis for the evaluation. Leadership of the graduate programs will require attention with the turnover of Program Directors. HPME has been fortunate to have a very strong cadre of leaders who have closely monitored their quality.

Development

As the new Director engages in a renewed strategic plan, it will be important to identify targeted areas for fundraising. Over the past four years there has been discussion of a Centre for Health Economics and, in collaboration with the Dalla Lana School of Public health (DLSPH), the development of a Centre of Health and Public Health Policy. Neither has yet come to fruition partly because the Chair in Public Health Policy was only recently appointed and a Centre for Health Economics would require financial support. A focused effort should result in success.

Global Health

The DLSPH is actively engaged in defining its mission and vision for Global Health education and is involved in an initiative led by the Dean of Medicine to create an Institute for Global Health Equity and

Innovation. As HPME engages in its international consortium in health leadership, it`s anticipated that there will be opportunities to collaborate with the School in its graduate education programs.

Resources

Over the past four years, as budgets have been further decentralized, it has become paramount that departments develop additional revenue streams to support their operations. The new MHI program and the monies from graduate expansion have provided sufficient revenues to support the department. Though we expect that the monies for graduate expansion will continue to flow, increase in competition for students will create an uncertain environment. Declining revenues because of decreases in student enrolment would pose a risk to the department`s viability. Attention to recruitment of the best and brightest students will require ongoing marketing of HPME`s successes through various avenues as well as ensuring that the high caliber of faculty and programs is maintained.

Summary

The Strategic Plan developed four years ago has guided HPME`s activities. The majority of goals defined in the plan have been achieved. In addition, HPME has positioned itself for the next decade by defining what it believes to be its role within U of T and with the health services and health care community at large. There will be many challenges ahead especially in these uncertain economic times.

11. REPORT OF FACULTY

Department of Health Policy, Management and Evaluation
Faculty of Medicine
University of Toronto

Document for External Review, 2011

Faculty Report

Prepared by Peter C. Coyte on behalf of Faculty, Department of Health Policy, Management and Evaluation*

October 4, 2011

*I would like to thank the substantive contributions from several colleagues in HPME for their insightful comments and modifications to earlier versions of this report.

1.0 Introduction

The current Department of Health Policy, Management and Evaluation (HPME) brings together leading researchers from a wide variety of disciplines and professions to develop knowledge and translate innovative ideas into evidence-informed practices and policies in order to improve health services finance, organization, delivery and outcomes. Located in the Faculty of Medicine, HPME has the largest concentration of researchers in health services research and clinical epidemiology in Canada. Through its graduate programs and practitioner education initiatives, HPME has for many years also been involved in developing Canada's future health care leaders, educators and scientists.

HPME's success can be attributed to the talent and diversity of its faculty members, the calibre of its students, and its strong history of collaboration, partnership and outreach that have allowed it to leverage resources to achieve significant impact in academic circles and in the fields of health care practice and policy decision making. These contributions have been provincial, national and international in their scope.

The purpose of this report is to describe, from the faculty's perspective, the current environment in HPME and to highlight the associated challenges faced in the short, medium and longer term.

2.0 Current Environment

HPME is currently in a process of transition from a Department to an Extra-Departmental Unit: A (EDU: A). The structure of the EDU:A will allow maintenance of the Department's affiliation to the Faculty of Medicine, while also facilitating the achievement of HPME's vision of "*leadership in innovative thinking in health policy, management and evaluation*" by fostering an environment that supports collaboration and partnerships with a range of Departments, Faculties, Schools, academic teaching hospitals, and community partners. Once this transition has been approved, the Department of HPME will become the Institute of HPME.

The Institute will be committed to a vision of inter-professional and inter-disciplinary research and education in both health services and policy research and clinical epidemiology and health care research. Each area integrates contributions from diverse disciplines with knowledge of clinical and policy practices in order to improve the quality and sustainability of health care services as well as to enhance methods of health services finance, organization and delivery. To achieve these ends integration across disciplines and fields of expertise are crucial if long lasting solutions to complex challenges are to be achieved. The Institute is poised to capitalize on various collaborations and partnerships and will have the critical mass and a unique opportunity to enhance the effectiveness, efficiency and the equitable provision of health care services provincially, nationally, and internationally.

HPME faculty and students have developed a culture that values and promotes interdisciplinary research and education. This emphasis is reflected in the range of backgrounds, methods, and research foci within the department. HPME has also served as a very effective forum within which experts in these disciplines meet and collaborate. HPME faculty have multiple linkages within the Toronto academy as well as more broadly both nationally and internationally with partners from academia, industry, non-governmental agencies and governments. An Institute will facilitate and formalize the development of these collaborations and linkages by creating a strong core of people committed organizationally to multidisciplinary endeavors with dynamic interdisciplinary collaborations and a focus on evidence-informed practices which will improve the planning, delivery and outcomes of

health care. The Institute of HPME will be based on the principle that strong and relevant research in this field is necessarily the product of informed debate and exchange of ideas across disciplines, professions, sectors, institutions, cultures and geographic regions.

HPME's composition and structure have been integral to its success. HPME has historically had a relatively small number of full time faculty geographically located at the University and a large number of cross-appointed, adjunct, and status only faculty located in other Departments, hospitals, and other centres throughout the University and beyond, representing a large talent pool from which to draw expert teachers and supervisors. Similarly, the student body has included individuals pursuing graduate studies immediately after an undergraduate degree as well as clinicians and professionals with many years of experience who study as mature learners. Leadership, careful management, and a commitment to the development of a range of educational opportunities have resulted in the establishment of a range of programs that are tailored to the diverse needs of learners, but these programs often represent an additional demand on faculty without enhanced institutional supports. Pressure on faculty to do more with fewer resources is a challenge in the short, medium and longer term.

3.0 Challenges to Sustain Excellence in Research, Education and Service

HPME Faculty have achieved national and international recognition for their research, educational and training activities, and their service at home and abroad. To sustain this record of achievement a series of challenges need to be addressed in the short, medium, and longer term. Some of these challenges are structural and are associated with focused and supportive leadership as well as the preparedness planning for faculty renewal, others are process based actions that concern institutional recognition for the achievements of faculty, and some are reflective of the unsustainable nature of the demands placed on faculty in the absence of additional supportive resources.

Collaborations and Partnerships:

Given the crucial role played by collaborations and partnerships in fostering the achievement of HPME's research, education/training and community service goals, a major concern in the short and medium term is in the identification and placement of leadership capable of developing and nourishing such relationships, on the one hand, and in ensuring that faculty do not hold divided allegiances, on the other. While there is a natural concern that linkages developed by individual faculty might lesson their commitment to the shared goals and objectives set for HPME, there is also the belief that diversity in partnering arrangements by faculty adds to rich research milieu and also offers graduate trainees opportunities that may be forgone if partnerships were solely determined through group consensus. Consequently, it is important to identify leadership that can balance these tensions by spearheading collaborations, champion activities by faculty, and foster the HPME "entity" in partnership with HPME faculty.

Faculty Renewal:

More than fifty percent of the full-time HPME faculty will reach normal retirement age of sixty-five years in the next 5 to 10 years. Without a commitment from the University and the absence of a strategic plan for HPME faculty renewal, there is concern that HPME will be unable to maintain the achievements of the last decade, and unable to sustain the current configuration of activities in the areas of research, education/training, and community service. A focused assessment of the human resource requirements of HPME and a strategy to ensure resources are in place to recruit such faculty is

urgently needed. Delay in this area will result in a shortfall of personnel to maintain current programs, and accordingly, to meet the currently stated goals and objectives.

Collaborations within HPME:

Notwithstanding the excellent collaborative connections between the health services and policy research (HSR) and the clinical epidemiology and health care research (CEHCR) components of HPME, there tends to be a ongoing divide primarily because most full-time faculty specialize in HSR while those who specialize in CEHCR are predominantly clinical, hospital-based faculty who have primary university appointments in clinical departments. As the Department moves forward and searches for focused leadership, faculty have a genuine desire to further dismantle many of these organizational boundaries so that discourse is about "HPME" as a single entity in which both components are integral and fully represented is pursued. While this is important for HPME faculty, it is possibly of greater importance to HPME's external stakeholders. Faculty who teach and supervise primarily in the Clinical Epidemiology and Health Care Research field need to think of their activities as falling within the scope of HPME, rather than in a specific field. Although considerable progress has been made in this direction in recent years, continuing attention to the HPME "brand" will be needed during the transition to a new entity.

Expansion of Educational/Training Programs:

Over the last decade, HPME faculty have seen the introduction of new MSc and PhD Programs that have either emanated from within the Department or been pursued in conjunction with HPME. These degree programs as well as an array of professional development programs such as the HTA Institute entail demands on faculty time without commensurate resourcing from the University. For a research-orientated University, the proliferation of educational and training programs without adequate resourcing will negatively impact the research-based reputation of HPME in the medium and long term. Moreover, at least two new graduate educational programs are currently under consideration – the MSc degree in Quality and Patient Safety and the DrSc in Health Leadership. These new Programs stem from trends that emphasize the need for more targeted MSc degrees, such as the MHI on the professional side and the Master's in HTA&M on the research side, as well as a need for a more advanced professional degree than the MHSc, such as an applied doctorate degree. Both sets of degrees will rely heavy on our stakeholders to deliver the program materials as current HPME faculty are already overloaded with educational and training commitments such that further obligations are not sustainable. Also, the pressure to increase student numbers in existing programs put demands on faculty and also on infrastructure (e.g., space). Implementation of these Programs will require leadership in motivating stakeholders to participate and significant stewardship in monitoring program execution so as to ensure that our current educational standards are maintained.

Globalization and International Recognition:

While senior administrators have articulated a global vision for the University with research, education/training and community service pursued in partnership with individuals and organizations throughout the world, tangible support by way of infrastructure and other resources is absent and in some situations international activities are actually discouraged because of existing incentives that reward locally based activities rather than international ones. This dichotomy is exemplified in the case of international trainees. The University receives substantial differential tuition fees from such trainees, but hardly any of that income trickles to HPME in order to either support trainees or to reward faculty for their recruitment and training efforts.

HPME faculty are actively engaged in publishing in the highest caliber international journals. However, the execution of that research normally occurs at the local or provincial level. In contrast, there are substantial opportunities to adopt a much more receptive international approach to scholarly pursuits in the establishment, execution, and dissemination of research and training activities in order to enhance the effectiveness, efficiency and the equitable provision of health care services internationally. HPME as well as faculty have various networks to draw upon in order to pursue international work. For example, HPME has a global network of graduates while individual faculty have research, educational, and service networks of their own. Several HPME faculty members have held leadership positions in international scholarly societies and editorships in major international journals over the last 5 years. When integrated and organized, there is the potential for HPME to receive greater recognition for its international scholarly pursuits. To facilitate such actions, there is a need for leadership to prioritize, actively encourage, and to reward efforts that strengthen international networks and associated scholarly pursuits. Broadening our scholarly international activities offers promise in terms of resources, innovation and reputation. Leadership is warranted to assist in the development of those activities. Moreover, leadership with an affinity for and a willingness to champion the pursuit of research, education and service on the international stage is required.

Integrating Web-based Education into HPME Programs:

There are a wide range of web-based and blended model (residential plus distance) educational programs offered by many Universities and Colleges. HPME has not been an active participant in such modes of delivery despite the fact that such models could advance our international recognition and provide a more global experience to our students. As competition intensifies for graduate students and professional education, HPME may need to reconsider the utility of such modes of delivery. If serious consideration were given to integrating web-based options, then the leadership of HPME would need to address concerns associated with faculty time, infrastructure and ensuring that the skills and competencies exist to market and implement such “technology dependant” programs.

4.0 Conclusions

The future requires collaboration, integration and innovation in order to enhance the effectiveness, efficiency and the equitable provision of health care services provincially, nationally, and internationally. HPME has cultivated a reputation for scholarly activities at the highest level in its research, education/training and community service activities. Further growth in each of these areas may occur but requires leadership that is knowledgeable of the unique context faced by HPME faculty and its various stakeholders. For more than a year, HPME has lacked a full time Chair. The current Chair has had to divert her time towards her role as the Interim Director of the Dalla Lana School of Public Health. As the Department transitions into the Institute of HPME, it will be important to have full time, dedicated leadership. While there are an array of opportunities, there are also challenges that might retard progress, innovation and growth. HPME faculty look forward to embracing new leadership with the skills and competencies that complement those of HPME faculty and a global vision and interdisciplinary attitude supportive of furthering innovative partnerships.

12. REPORT OF STUDENTS

External Review of the Department of Health Policy, Management and Evaluation (HPME), 2011: Student's Report.

Prepared by Renata Axler (PhD Candidate, Health Services Research, HPME GSU President), Carolyn Steele Gray (PhD Candidate, Health Services Research, HPME GSU Vice-President), and the HPME Graduate Students Union (GSU) Executive.

INTRODUCTION

This report was prepared by the HPME-GSU on behalf of all students in the Department of Health Policy Management and Evaluation, including professional stream students (Masters in Health Administration and Masters in Health Informatics) and research stream students (Masters and PhD in Health Services Research and Clinical Epidemiology). This document reflects information collected by the HPME-GSU and the University of Toronto including: the 2010 Course Union Survey, the HPME-GSU Town Hall Surveys (2010, 2011), the HPME-GSU Funding Survey 2011, the HPME Research Day 2011 Survey, and the Canadian Graduate and Professional Student Survey 2010. The findings presented below aim to capture the general HPME student experience, and identify some areas of concern for current students.

OVERALL EXPERIENCE

The HPME student body is comprised of a diverse array of graduate students across professional and research streams. Students are active participants in HPME life and contribute immensely to the activities of HPME. The HPME-GSU serves as an organizing, social and advocacy group for student issues across the department. The comments below highlight the activities and attitudes of students in HPME.

SCHOLARLY EXPERIENCE, COURSEWORK AND SUPERVISION

The large majority of professional and research stream students found the intellectual quality of the faculty of HPME to be excellent (47.4% research stream; 52.6% professional stream) or very good (46.2% research stream; 34.2% professional stream), and had positive attitudes toward the overall quality of graduate level teaching and academic advising.[1,2] Research stream students are overall satisfied with the amounts of independent research they were able to conduct within the program, their training in research methods before beginning their own research, and faculty guidance in forming their research topic.[1] As well, students report having many opportunities to collaborate on research projects with one or more faculty members and some opportunities to participate in grant writing and attending scholarly meetings and conferences, to present posters at scholarly meetings and to publish in academic journals with faculty.[1] Students are generally satisfied with core courses within HPME in terms of availability, class size, tutorial group size, relevance, and quality of instruction.[3]

Students in research streams mostly find their dissertation advisors to be knowledgeable about formal degree requirements, to serve as their advocate when necessary, to give constructive feedback on their work, and overall to promote their professional development.[1] Students were satisfied with their supervisors in terms of: availability to meet, approachability and knowledge of program requirements, familiarity with the research area, and overall mentorship.[3] Professional stream students rated their

program directors highly in terms of: knowledge of program requirements (54% reported excellent, and 26% reported very good), familiarity with research area, and overall mentorship.[3]

STUDENT SPACE AND RESOURCES

Of 69 students surveyed, over 70% reported using the designated student work space. Roughly 15% used the space 2-4 days/week. The main reason for students using the workspace were students preferring a place to work on campus when they require space (42%) and students requiring a computer (17%). The majority of those who do not use the spaces reported preferring to work from home (42%).[5]

FUNDING

HPME students who receive funding are mostly funded by Departmental fellowships (46.5%), supervisor's grants (27.9%), Federal funding (25.6%) or Provincial funding sources (20.9%).[4] Most students rated access to scholarship and fellowship opportunities between fair and very good in terms of: communicating regarding availability, support in assembling packages, and departmental disbursement of awarded funds.[3]

STUDENT LIFE

The HPME-GSU

The HPME-GSU comprises an integral component of student life at HPME. The GSU takes an active role in creating a student community (through social events), in providing educational opportunities (through lunch and learns), and in advocating for students within the department (through providing representation on departmental committees and conveying student concerns to the department). Students report HPME-GSU orientation to the program as either good (28%) very good (37%) or excellent (19%).[3] The HPME-GSU continues to take active steps to improve engagement with students across streams, student collaboration activities and a general sense of community and empowerment amongst HPME students.

Student Involvement in Research Day

A much-anticipated annual event hosted by students and for students, Research Day is an occasion for sharing knowledge, approaches, and ideas among HPME students, faculty, alumni, and guests. The student-led Research Day Planning Committee includes representatives from HPME's many programs and streams, and provides a rewarding opportunity for rich discussion and exchange of ideas that flows from interdisciplinary and inter-sectoral collaboration. All students are invited and encouraged to showcase their scholarship through oral and poster presentations in order to profile their work in a supportive environment, receive valuable input and advice, and to develop communication skills. Overall, 85% of Research Day 2011 attendees rated their experience as either excellent or very good.[6]

SUGGESTIONS FOR IMPROVEMENT

While students are generally satisfied with scholarly activities and student life within the department, there have been some areas of concern identified by students across streams. The HPME-GSU is working with the Department to address some of these concerns.

Scholarly Community and Coursework

Students across streams found some room for improvement in the relationship between faculty and graduate students within the department, and were concerned about the limited opportunities for student collaboration or teamwork. [1, 2]

There has been some concern with courses offered within HPME. Issues expressed by students include: large class sizes, unclear paper expectations, non-return of student papers, and issues with PhD comprehensive courses.[5] Some students also found issues with course instructors in terms availability, facilitation, and teaching of appropriate skills.[5 Of] particular concern were the availability of statistics courses at different levels within the department. [5] In addition, students have concerns regarding difficulties in fulfilling program requirements in terms of number of courses required and the timing of when courses were offered, including issues of imbalance across the year and lack of summer courses.[3]

Students in PhD programs found some issues with degree requirements in terms of time to completion. Some felt that the coursework, comprehensives and research required 5 years rather than 4 and felt that the department could be more attentive to this issue. [5] Professional stream students had some issues with the quality of academic advising and guidance within the department (30.6% rated this as poor), and helpfulness of staff members within their programs (15.3%) rated this as poor.[2] Students in the MHI program generally feel that they require more mentorship.[3] As well, MHI students demonstrate concerns that their courses are overly theoretical and do not provide them with the practical training and skills they seek. [5]

There is also some concern about coursework outside the department [1,2], including issues with access to these courses (27% identified this as poor, and 19% identified this as fair)[3], as well as issues with paperwork, course availability, or difficulty accessing information about the courses (start dates, availability, etc.)[5]. In previous years students have also identified issues with accessing collaborative programs and including courses from those programs into their departmental course requirements.

Teaching and Research Assistantships and Practicums

There have been some concerns from students relating to availability and access to Teaching Assistant (TA) and Research Assistant (RA) positions. In general students feel that TA/RA positions need to be more readily available, especially for those who need supplemental income.[4] The availability of TA positions is also important for students who wish to pursue an academic career and need to build up a teaching portfolio.[3] Student rated TA opportunities within the department poorly with regard to: position availability (80% replied poor), especially within area of expertise; and ability to secure positions.[3] Students also rated TA opportunities outside the department equally poorly across all dimensions.[3]

RA opportunities were rated slightly higher (good or fair) in terms of: communication regarding availability, availability of position with supervisor, availability of position with other departmental members, availability of positions that fall in area of expertise, and ability to secure positions.[3]

Some professional stream students found some difficulties with regards to securing practicum placements. Practicum opportunities were rated well across the spectrum from poor to excellent with regard to: communication regarding position availability, availability of positions, availability of positions that fall in area of expertise, and ability to secure positions.[3]

Funding

Some issues have been identified regarding the uncertainty of payment date of funding packages (42.5%), late or delayed payments (25%), uncertainty of how to defer tuition payments (17.5%) and lack of notification from the Department on availability of funding (17.5%).[4] Some students also found a lack of clarity with regards to the timing of arrival of their funding packages.[4] Students would like to see more information about external sources of funding on the HPME website, or details on where to find this information.[4] Students outside of the official funded cohort would like to see some funding options offered by the department.[4] Only 35% of students reported access to additional funding to support their research (19 of 55), and only 40% reported access to funds to support the cost of conferences (22 of 55).[3]

Building Space and Other Resources

22% of student reported not feeling comfortable or satisfied with the workspace. Among the reasons identified for not using the space include: not enough spaces, the cleanliness of the spaces, computer quality, too noisy, limited software availability, and an inability to support sustained workspace. Most of these areas were suggested as requiring improvement.[5] Students identified a continuing need for better access to restricted software such as SAS, SPSS, and NVivo (61% rated as poor) as well as photocopying/scanning equipment (73% rated as poor).[3] Some of these concerns have been addressed by the Department.

Departmental communication

Students are interested in increased communication from the department about student issues and updates. Students are interested in updates regarding the website, timetable availability, information regarding course availability).[5] Students would like to see better organization of the website, more online support, and would like to see more information available on blackboard.[3]

Note: Student publications are referenced in Appendix 12.I.

[1] Canadian Graduate and Professional Student Survey: Research Stream, 2010; [2] Canadian Graduate and Professional Student Survey: Professional Stream, 2010; [3] Course Union Survey, 2010; [4] HPME-GSU Funding Survey, 2011; [5] HPME-GSU Town Hall Survey, 2010, 2011; [6] HPME Research Day Survey, 2011.