

**University of Toronto
Faculty of Medicine
MD Program**

Principles of Curriculum Planning and Management

Preamble

The planning and management of the MD program are guided by several different constructs: the mission, vision and values of the University of Toronto Faculty of Medicine; the accreditation standards of the Committee on Accreditation of Canadian Medical Schools (CACMS); the learning objectives defined by the Medical Council of Canada; the priorities articulated by the Future of Medical Education in Canada-MD project; and, evidence-based principles from medical education research studies. These constructs are in turn embedded within an overarching culture of educational scholarship that aims to advance the development, delivery and evaluation of all our educational programs.

The Undergraduate Medical Education Curriculum Committee has translated these constructs, as well as existing educational practices in the MD program at the University of Toronto that have iteratively evolved over many decades, into a series of principles. These are expressed in nine broad categories that are intended to capture the major issues related to curriculum planning and management: curriculum management overall; program objectives; curriculum structure; learning activities; recruitment and preparation of teachers; learning environment; formative feedback; summative assessment; and, curriculum evaluation.

These guiding principles complement existing policies, procedures, guidelines and statements, but focus on the underlying educational and pedagogic rationales that guide curriculum planning and management. Educators involved in planning and implementing curricular activities will consult and apply these principles in their activities.

The description below of each category of educational planning includes a guiding principle, followed first by a list of relevant CACMS accreditation standards/elements, and then by several enabling processes. The enabling processes should assist the program in adhering to these principles, and ultimately in achieving the program's goals, all while maintaining high standards of educational scholarship.

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*Approved by Curriculum Committee
June 21, 2016*

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1. CURRICULUM MANAGEMENT

Guiding Principle

The MD program has a decision-making process with broad representation from key stakeholders that ensures integrated oversight of the design, implementation, management, evaluation and enhancement of the MD program.

Relevant Accreditation Standards/Elements

- 1.1 Educational Planning and Continuous Quality Improvement
- 8.1 Curricular Management
- 8.2 Use of Medical Education Program Objectives
- 8.3 Curricular Design, Review, Revision/Content Monitoring
- 8.4 Program Evaluation

Enabling Processes

The Faculty of Medicine entrusts the overall management of the MD program's curriculum to the Undergraduate Medical Education Curriculum Committee (UMECC).

- The UMECC includes representation from the teaching faculty, departmental chairs, students, administrative staff and medical education leadership.
- UMECC delegates the detailed implementation of the curriculum to the Preclerkship/Foundations and Clerkship committees, and its evaluation to the UME Curriculum Evaluation Committee. Each of these committees reports to UMECC.

The UMECC has authority over each of the following aspects of curriculum management:

- Establishing policies and procedures which govern the planning and implementation of the curriculum
- Resource allocation to support delivery of the curriculum
- Assuring compliance with curriculum-related accreditation standards/elements
- Preparing the medical education program objectives, ensuring their application in curriculum planning, and that students are achieving the specified competencies
- Determining the structure and content of the program, and ensuring that the overall curriculum is both coordinated and integrated
- Determining assessment procedures
- Approving proposed major changes to the program
- Overseeing the evaluation of curriculum processes and outcomes

2. PROGRAM OBJECTIVES

Guiding Principle

The MD program has a set of *overarching medical education program objectives* that graduates of the program are expected to achieve, that are responsive to the changing needs of society, and that encourage the development of the breadth of competencies needed for contemporary medical practice.

Relevant Accreditation Standards/Elements

1.1 Strategic Planning and Continuous Quality Improvement

6.1 Format/Dissemination of Medical Education Program Objectives and Learning Objectives

7. Curricular Content

Enabling Processes

Organization of the medical education program objectives

- The objectives of the MD program as a whole are:
 - Organized according to CanMEDS roles
 - Expressed in terms of the competencies of the medical profession
 - Provided in a hierarchy of key and enabling competencies
- Learning objectives for courses are:
 - Linked to the overall program's competency goals
 - Organized according to CanMEDS roles
- Objectives for individual sessions are:
 - Linked to course and program objectives
 - Expressed in language that reflects what learners are expected to be able to do at the end of the session

Content of the program objectives

- The objectives of the MD program address the breadth of competencies of the medical profession, as expressed by the CanMEDS roles
- All program, course and session objectives are relevant to *clinical* practice
- The program objectives reflect:
 - The competencies required for entry into any postgraduate training program in Canada as delineated by the Royal College of Physicians and Surgeons of Canada (CanMEDS 2015) and the College of Family Physicians of Canada (CanMEDS-FM)
 - The objectives identified by the Medical Council of Canada
 - Key content domains explicitly identified by the standards of the Committee on Accreditation of Canadian Medical Schools (CACMS, Standard #7)*
- The program objectives lend themselves to further elaboration via the use of milestones, which in turn serve as a basis for assessment exercises, particularly at the time of entry to clerkship and prior to graduation

*These content domains, in summary form, are:

- *Content from the biomedical, behavioural and social sciences relevant to medical practice*
- *Community, population and public health content in relation to wellness, determinants of health (including health-related impact of behavioural and socioeconomic factors and of common societal problems), health promotion, disease prevention*
- *Skills of clinical diagnosis and patient management applied across the life cycle, to all organ systems, and in the context of primary, acute, chronic, rehabilitative and end-of-life care*
- *Scientific method, clinical and translational research and critical appraisal*
- *Medical ethics*
- *Communication skills and skills of cultural competence, including recognition of personal gender and cultural biases and of health care disparities*
- *Interprofessional collaborative skills*

3. CURRICULUM STRUCTURE

Guiding Principle

The major elements of the MD program are organized in a *logical sequence* and in a *coordinated and integrated* manner that supports the progressive development of students' competencies.

Relevant Accreditation Standards/Elements

- 8.1 Curricular Management
- 8.2 Use of Medical Educational Program Objectives
- 8.3 Curricular Design, Review, Revision/Content Monitoring
- 8.4 Program Evaluation
- 8.5 Use of Student Evaluation Data in Program Improvement
- 8.7 Comparability of Education/Assessment
- 8.8 Monitoring Time Spent in Educational and Clinical Activities

Enabling Processes

The enabling processes related to Curriculum Structure are in three broad categories:

- (a) The overall structure and logical sequencing in the program
- (b) Coordination and integration in the curriculum
- (c) Introducing change into the curriculum

(a) The overall structure of, and logical sequencing in, the program

General features of the curriculum structure

- The logic of sequencing in the curriculum is made transparent to students and teachers.
- The MD program is divided into a two-year Preclerkship/Foundations Curriculum* and two-year Clerkship.
- Mastery of required foundational science competencies is emphasized early in the program and reinforced subsequently.
- Learning activities during the program progress from supporting a basic understanding of phenomena to being able to apply competencies to the care of patients.

Preclerkship/Foundations Curriculum structure and sequencing of elements

- The goal of the first two years of the MD program is to begin the process of supporting students' acquisition of the breadth of competencies required for life-long practice, and in particular to prepare them for the workplace-based learning in the clerkship.
- In the Preclerkship/Foundations Curriculum, the logical sequencing involves the explicit use of various frameworks, some of which may include:
 - Organ systems
 - Life stages
 - The application of foundational sciences to understanding health and disease at all levels of organization, from the subcellular to the whole of society
 - The spectrum of clinical problems, from straightforward and acute, to complex and chronic

Clerkship structure and sequencing of elements

- The Clerkship includes a blend of core and elective/selective clinical experiences
- The required experiences are organized either via traditional block rotations or in a longitudinal integrated clerkship (LInC). In either case, students have sufficient clinical exposure to permit them to achieve the medical education program objectives.
- The rotations of a traditional block program place students in departmentally-organized clinical placements, with a sequence of rotations that supports the acquisition of competencies
- The LInC program is carefully designed with a blend of scheduled activities and unscheduled time; and, of (predominantly) longitudinal activities but also more immersive "block" types of experiences where necessary.
- To support career exploration, students are able to complete all of their core experiences and electives prior to the deadline for application to postgraduate training programs.
- Students have equitable access to electives.

* The Foundations Curriculum is replacing the traditional preclerkship program and is being launched for the 2016-17 academic year for students entering medical school. In 2016-17, the second year students will complete the second year of the preclerkship program. Beginning in 2017-18, the term "Preclerkship" will be superseded by the term "Foundations Curriculum".

3. CURRICULUM STRUCTURE (continued)

Enabling Processes (Continued)

(a) The overall structure of and logical sequencing in the program (continued)

Transitions are facilitated at key points in the program

There are three key transitions in the MD program: entry to the program; transition to clerkship; and, transition out of the program (i.e., into residency). Each of these transition points receives careful curricular attention to ensure the specific learning needs of students are addressed to facilitate a smooth adaptation to the next stage of learning.

(b) Coordination and integration in the curriculum

Definition of curricular coordination

Elements of the curriculum (including individual events or sections of courses and courses as a whole) do not exist in isolation; rather, they are planned such that the learning achieved in one element connects to, prepares for, supports or reinforces learning achieved in other elements, while avoiding unnecessary redundancy. These elements are visualized as relating to each other in a spiral curriculum model, where topics are revisited over the duration of the program. This coordination applies to each of the following relationships:

- From an early to a later part of a single course
- Across courses within the Preclerkship/Foundations Curriculum and within the Clerkship
- Between the Preclerkship/Foundations Curriculum and the Clerkship

Definition and prioritization of curricular integration

Integration in medical education may be defined as “...the organization of teaching matter to interrelate or unify subjects frequently taught in separate academic courses or departments”[†]. All elements of the MD program strive for integrated teaching wherever possible.

Types of integration

Curricular integration can be horizontal and/or vertical.

- “Horizontal” integration refers to integration of material within a period of study, across disciplines traditionally taught separately. For instance, anatomy, physiology and biochemistry are taught together around a thematic unit such as body systems. The period of study may be a single session, a week, a course within a year, or an entire year.
- “Vertical” integration refers to integration of material within a period of study, across disciplines that are traditionally taught at different stages of the program, particularly of basic sciences with clinical disciplines. In a vertically integrated program, basic science and clinical topics are taught at the same time. For instance, one might teach cardiovascular anatomy and physiology in the same timeframe as an approach to diagnosis and treatment of cardiovascular disorders. Vertical integration is also supported by teaching that is organized around themes (see below).

Integration and coordination within the Preclerkship/Foundations Curriculum

The Preclerkship/Foundations Curriculum is divided into several courses. Each course consists of several sequential segments, and each segment comprises a number of weeks. Each course, each segment and each week represents a conceptually defined unit such as “cardiovascular system”, “family and society” or “end-of-life care”. Each week presents integrated content from basic, clinical and social sciences, clinical skills, community health content, and related thematic areas covering the breadth of CanMEDS roles.

[†] Harden, R., Sowden, S. and Dunn, W. Educational strategies in curriculum development: the SPICES model. *Medical Education* 1984;18:284-297.

3. CURRICULUM STRUCTURE (continued)

Enabling Processes (Continued)

(b) Coordination and integration in the curriculum (continued)

Integration and coordination within the Clerkship

In the traditional clerkship context, the (vertical) integration of basic science and clinical topics is emphasized within individual clerkship rotations. Coordination among rotations is a major priority, particularly when there is coverage of closely related content in more than one rotation. In such a case, the repeated coverage is deliberately planned in a manner that is reinforcing rather than redundant. Each course identifies core procedures and clinical encounters for students to experience, and these are coordinated across the courses to ensure appropriate coverage of clinical content in the clerkship as a whole. The effects of this overlap are monitored. In the longitudinal integrated clerkship (LInC) context, integration is obviously a key organizing principle. Notwithstanding, it is essential to have the same degree of coordination among the elements within the LInC as in the block clerkship.

Coordination between Preclerkship (Foundations Curriculum) and Clerkship

The major core content areas of medicine (defined in Principle #2 above) are *introduced* in the Preclerkship/Foundations Curriculum. They are elaborated on in Clerkship, where their application to patient care is emphasized. Topics for classroom teaching in Clerkship are selected and sessions organized in coordination with relevant teaching in the Preclerkship/Foundations Curriculum.

Vertical integration through curricular themes

Teaching organized around various curricular themes is delivered throughout the entire program and addresses:

- The breadth of competencies across the CanMEDS roles, with an appropriate balance between the Medical Expert and the “intrinsic”[‡] roles. Teaching about each of the intrinsic roles is explicitly defined and coordinated across the program.
- Medically underserved populations including but not limited to indigenous Canadians, those identifying as LGBTQ, the elderly, those identifying as disabled
- Specific content areas, including but not limited to pharmacology, medical imaging, medical humanities, and community, population and public health

(c) Introducing change into the curriculum

Proposed changes to the curriculum consider existing teaching in that domain

Planning new and revising existing learning activities involves a careful review of how the proposed learning objectives are addressed elsewhere in the program, to ensure there is appropriate reinforcement while avoiding needless redundancy.

Proposed changes are carefully reviewed

All changes to or introduction of new courses and curricular components are reviewed by the curriculum committee (or one of its subcommittees) according to an established process, as determined by the program.

[‡] The “intrinsic” CanMEDS roles are: Communicator, Collaborator, Leader, Health Advocate, Scholar, Professional.

4. LEARNING ACTIVITIES

Guiding Principle

The MD program organizes a variety of *learning activities* designed to ensure students have the maximum opportunity to achieve the goals of the program, while avoiding an excessive workload.

Relevant Accreditation Standards / Elements

- 3.1 Resident Participation in Medical Student Education
- 3.2 Community of Scholars/Research Opportunities
- 5.5 Resources for clinical instruction
- 5.8 Library Resources / Staff
- 5.9 Information Technology Resources / Staff
- 6.2 Required Clinical Learning Experiences
- 6.3 Self-Directed and Life-Long Learning
- 6.4 Inpatient/Outpatient Experiences
- 6.5 Elective Opportunities; 11.3 Oversight of Extramural Electives
- 6.6 Service-Learning
- 7.9 Interprofessional Collaborative Skills
- 8.8 Monitoring Time Spent in Educational and Clinical Activities
- 9.3 Clinical Supervision of Medical Students

Enabling Processes

The enabling processes for Learning Activities are in five broad categories:

- (a) General principles and types of activities
- (b) Interactions with teachers
- (c) Learning via interactions with patients
- (d) Other domains of learning
- (e) Facilitation of student well-being for optimal learning and performance

(a) General principles and types of activities

Match with competency goals

Learning activities and supporting resources are thoughtfully chosen to optimally support learning required to meet competency goals.

Preclerkship/Foundations Curriculum learning activities

Students have a variety of complementary learning modalities available to support their learning, including but not limited to: small group learning with clinical and other teachers, e-learning, peer teaching/learning, lectures, supervised clinical work, visits to community settings, and simulation.

Clerkship learning activities

The emphasis in clerkship is learning while participating in the care of patients in various supervised settings. Clerkship program expectations include *required clinical learning experiences*. These are both clinical presentations which students must encounter, as well as procedures they must successfully complete. Each clerkship course specifies these presentations and procedures, the context in which they are to be experienced, and the level of independence at which they are to be completed. The clinical learning in clerkship is supplemented as needed by appropriate classroom activities.

Supporting resources

Supplementary materials to enhance learning are available to students in both Preclerkship /Foundations Curriculum and Clerkship. These include carefully prepared and/or curated readings and online interactive activities, to which students receive orientation. Sufficient library and information technology resources are also available to support additional student learning.

4. LEARNING ACTIVITIES (continued)

Enabling Processes (continued)

(a) General principles and types of activities (continued)

Avoiding excessive workload throughout the program, and providing self-learning time in the Preclerkship/ Foundations Curriculum

Avoiding an excessive workload for students is a priority in program planning. Students have self-learning time each week in the Preclerkship/Foundations Curriculum that is available for pursuing career interests, research projects, community work, and if required for study time to enable meeting competency milestones. Students' workload (including on-call in clerkship) is carefully monitored by course directors via end-of-course surveys, input from student course representatives, and other ad hoc means. If a problem of excessive workload is identified, the program is empowered to take measures to correct it.

(b) Interactions with teachers

Faculty members

Students have the opportunity for longitudinal interactions with faculty members in both Preclerkship/Foundations Curriculum and Clerkship, for purposes of mentorship and to form a sufficient basis for assessment of student learning.

Postgraduate trainees

Students have sufficient opportunities to learn from and work with postgraduate trainees, to support their learning and their career exploration.

(c) Learning via interactions with patients

Value of patient interactions; settings; and, progression of responsibility

Student interaction with patients is the highest valued learning activity, starting from the beginning of medical school. These interactions occur in a variety of settings, including in-patient and ambulatory care settings as well as in the community, with a diversity of patient types (including acuity, case mix, age, and gender). As students progress through the program, they play an increasingly meaningful role in patient care.

Patient safety and simulation

Patient safety is paramount during educational activities. This is facilitated by appropriate use of simulation, including standardized patients, physical models, and online simulations.

(d) Other domains of learning activities

Interprofessional education

Interprofessional education (learning with, from and about other health profession students) is used throughout the program to support learning in many domains, particularly in the collaborator role.

Exposure to graduate students

Medical students are also provided opportunities for meaningful interaction with graduate students. This supports broadening their learning about other health professions and health sciences.

Self-directed learning

Students have repeated opportunities to engage in self-directed educational activities, and receive feedback on their efforts, to prepare them for life-long learning.

Skills of reflection

Students have the opportunity throughout the program to develop the skills of reflective practice by interacting with peers and tutors, and by producing both verbal and written reflections.

Electives

Elective experiences are provided during both the Preclerkship/Foundations Curriculum and Clerkship that permit students to deepen learning and support their career planning

Service-learning

Students in the core curriculum have meaningful opportunities for service learning (a structured learning experience that combines community service with preparation and reflection).

4. LEARNING ACTIVITIES (continued)

Enabling Processes (continued)

(d) Other domains of learning activities (continued)

Opportunities for research

Students who are interested in participating in research projects have opportunities to do so, both during the school year and during unscheduled time in the summer months.

(e) Facilitation of student well-being for optimal learning and performance

In collaboration with the Office of Health Profession Student Affairs, curriculum leaders work to support student well-being. This includes addressing resilience during jointly organized presentations and other learning opportunities, which are provided to students and woven into the core curriculum.

5. RECRUITMENT AND PREPARATION OF TEACHERS

Guiding Principle

Teaching in the MD program is a highly valued academic activity by the Faculty of Medicine and its constituent departments. The MD program recruits teachers and provides them with appropriate support for their teaching roles in the medical school. This support includes orientation to the teaching activities; faculty development opportunities; individual consultations; and other resources as required.

Relevant Accreditation Standards/Elements

4.1 Sufficiency of Faculty

4.4 Feedback to Faculty

4.5 Faculty Professional Development

6.1 Format/Dissemination of Medical Education Program Objectives and Learning Objectives

9.1 Preparation of Resident and Non-Faculty Instructors

Enabling Processes

Recruitment of teachers

Faculty members and postgraduate trainees are recruited to teach in the MD program following consideration of a variety of factors, including their prior experience, their interests, prior evaluations of their teaching, and the needs of the program. It is the shared obligation of the MD program and the Departments to identify and recruit sufficient teachers to deliver the program.

Providing teachers with objectives and expectations for sessions

Faculty members and other teachers are informed of the objectives for the courses and sessions in which they are involved, and of expectations regarding the conduct of the sessions they are leading.

Feedback on teaching

Faculty members and other teachers receive feedback on their teaching, including suggestions for development, as appropriate. An appeals process is available to teachers who feel that a low rating of their teaching was provided inappropriately, for instance in retribution for a low rating of a student.

How teaching in the MD program is valued by academic departments

Participation in teaching in the MD program, and particularly delivering high quality teaching, is valued by academic departments. This value is demonstrated by the following practices:

- Teaching effectively in the MD program contributes to tenure and/or academic promotion
- Teaching in the MD program is one of the activities which faculty members may carry out as part of their core job description
- Teaching in the MD program may contribute to a faculty member's remuneration package
- Teaching in the MD program by community-based preceptors may support granting of adjunct faculty appointments
- Giving out teaching awards and similar recognition for exceptional teaching performance

Faculty development is provided to teachers

The MD program provides a comprehensive faculty development program that addresses:

- Orientation to teaching practices and the MD program for new faculty members
- General teaching skills on topics such as questioning skills, and providing feedback
- Teaching practices specific to individual courses
- Assistance tailored to meet the teaching needs of individual faculty members

The faculty development program is delivered through a variety of mechanisms, including face-to-face sessions, and via online and written materials.

Faculty members are acknowledged for taking part in faculty development, including by their Department, for tenure/promotion and for professional development credit.

Teachers are encouraged to provide feedback to education leaders about all aspects of the program

Various means are provided to teachers to share their feedback and suggestions for improvement.

6. LEARNING ENVIRONMENT

Guiding Principle

The MD program creates for students a welcoming and supportive *learning environment* that is most conducive to the achievement of the program's learning goals.

Relevant Accreditation Standards / Elements

- 3.4 Anti-Discrimination Policy
- 3.5 Learning Environment/Professionalism
- 3.6 Mistreatment
- 6.1 Format/Dissemination of Medical Education Program Objectives and Learning Objectives
- 7.6 Cultural Competence/Health Care Disparities/Personal Bias
- 9.3 Clinical Supervision of Medical Students

Enabling Processes

The enabling processes for Learning Environment are in five broad categories:

- (a) Teachers are oriented to expectations about the learning environment
- (b) The MD program and teaching sites have mechanisms for students to report mistreatment
- (c) The MD program and affiliated teaching sites are empowered to address incidents of mistreatment
- (d) The MD program and affiliated teaching sites monitor the overall quality of the learning environment and are empowered to improve the environment when needed
- (e) Students, teachers and staff are regularly offered cultural competency training

(a) Teachers are oriented to expectations about the learning environment

The roles of teachers and other health professionals vis-à-vis the learning environment

Teachers of medical students include faculty members and postgraduate trainees. Multiple other health professionals interact with students and contribute to the quality of the learning environment. All of these individuals are provided with resources to better understand the attributes of a positive learning environment, and how to avoid contributing to a negative learning environment.

Attributes of a positive learning environment to be promoted

The positive aspects of the learning environment include, but are not limited to:

- An appropriate orientation to classroom sessions and clinical placements, including clarity of expectations for learners about learning objectives and their work responsibilities environment
- Meaningful engagement in patient care, with an appropriate balance of autonomy and supervision
- High quality clinical and classroom education, which emphasizes feedback to learners
- Professional role modeling by supervisors
- Contributions from the whole health care team to medical students' education
- Students have the opportunity to evaluate the quality of their experiences
- The ability to address problems when they are identified, including being able to report problematic incidents in the learning environment when they occur, without fear of reprisal
- A friendly, welcoming and supportive atmosphere
- A safe and comfortable work environment

Attributes of a negative learning environment to be avoided

The potentially negative aspects of the learning and work environment include but are not limited to:

- Unprofessional behaviour of all kinds demonstrated by teachers, other health professionals and fellow medical students
- Mistreatment of students, which includes but is not limited to:
 - Belittlement or humiliation of learners
 - Threats of, or actual, physical harm
 - Unwanted sexual advances
 - Harassment, intimidation, exploitation
 - Requirement to perform physical services such as shopping
 - Mistreatment of any other kind including being denied opportunities or rewards, being subject to offensive remarks, or receiving lower evaluations, due to one's gender, racial or ethnic background, or sexual orientation

6. LEARNING ENVIRONMENT (continued)

Enabling Processes (continued)

(a) Teachers are oriented to expectations about the learning environment (continued)

Resources to support an optimal learning environment

The MD program provides appropriate faculty development resources designed to optimize the learning environment and to avoid negative aspects. These resources include face-to-face sessions, and print and online materials.

(b) The MD program and affiliated teaching sites have mechanisms for students to report mistreatment and other forms of unprofessional behaviour by teachers and others

Reports may be made through a variety of means. These include online incident reporting forms, reports to medical education leaders[§], or reports made via student leaders.

When making a report, students have the option to

- Remain anonymous, although they are encouraged to identify themselves.
- Be kept informed of the progress of the investigation of the incident and of any response to it.
- Withdraw from the reporting process.

These options may be subject to any additional regulatory or institutional reporting requirements that apply in the specific circumstances.

The program encourages a student who observes an incident that she/he is very concerned about (for instance due to concerns about patient or student safety) to promptly report such an incident to one of their supervisors.

(c) The MD program and affiliated teaching sites are empowered to address incidents of mistreatment and other unprofessional behaviour

Responses to incidents of mistreatment or major unprofessional behaviour

The response to any given incident, whether reported through a formal process or via informal conversation, must be individualized. The wellbeing of the reporting student is a very high priority. The program and affiliated teaching sites are committed to a fair process to establish the facts of what happened, and to ensure that appropriate steps are taken to minimize any resulting harm and to reduce the likelihood of recurrence of such incidents.

Medical education leaders who receive a report about mistreatment and/or unprofessional behaviour are provided with readily available guidance on how to proceed. This guidance is available via both online/printed materials and by the ability to contact senior leaders for advice. Every report must be taken seriously, and understood to represent potentially very significant harm to the learning environment. The recipient of a report about student mistreatment is encouraged to forward the report to the Associate Dean Health Professions Student Affairs, provided the student grants permission.

Reports to the student body about incidents of mistreatment or major unprofessional behaviour

The MD program provides the student body with anonymized reports on how incidents of mistreatment and other unprofessional behaviour on the part of teachers and others have been handled.

[§] Leaders to whom reports may be made include: the site director, course director, Preclerkship (Foundations Curriculum) Director, Clerkship Director, Curriculum Director, Academy Directors, Hospital Vice President/Director of Education, Associate Dean Health Profession Student Affairs, or the Vice-Dean MD Program.

6. LEARNING ENVIRONMENT (continued)

Enabling Processes (continued)

(d) The MD program and affiliated teaching sites monitor the overall quality of the learning environment using a variety of methods and are empowered to improve the environment when needed

In addition to tools (described above) for reporting instances of mistreatment and other unprofessional behaviour, the MD program provides students with multiple means to provide feedback about the learning environment in general. These include questions on end-of-course and other surveys; data from focus groups; reports from student course representatives; and, data from the Graduation Questionnaire. Course directors and other medical education leaders review this data on a regular basis to identify courses and/or sites where students have indicated potentially significant issues with the learning environment may exist, and that warrant further review via more detailed measures such as interviews, focus groups and site visits, in order to determine the nature of the problems and to propose solutions. The MD program and affiliated sites are committed to deploying all necessary resources so as to remedy such issues at all teaching sites.

(e) The MD program offers training in cultural competency to students, staff and faculty members

Students in the program receive training in different aspects of cultural competence of increasing complexity. Faculty members and staff are offered a similar program.

7. FORMATIVE FEEDBACK AND SUPPORT FOR STUDENT LEARNING

Guiding Principle

The MD program provides students with *formative feedback* at multiple points to ensure they are well informed about their progress towards achieving their goals and the program's expectations, including those expressed as competency milestones. An effective system of *academic advising* is in place to provide support to assist students with their learning according to their needs.

Relevant Accreditation Standards / Elements

9.5 Narrative Assessment
9.7 Timely Formative Assessment and Feedback
11.1 Academic Advising

Enabling Processes

Related to Formative Feedback

Assessments support learning

Assessments of student learning are used not only to ensure students have achieved a minimum level of competence in specified domains, but also to support their learning. Particularly effective assessment strategies which support student learning include the use of frequent and low-stakes assessments, progress testing, and comprehensive feedback in relation to milestones and competencies across the breadth of CanMEDS roles. Results from a specific assessment exercise may be used to provide both formative feedback, and ultimately contribute to summative judgments as well.

Formative feedback is received early enough to permit adjustment of learning

Students receive specific and constructive formative feedback (i.e., feedback which does not count towards their final grade) on their learning early enough in each course so that they have time to appropriately modify their learning activities before summative assessments take place. Students are provided with opportunities to develop and improve their learning strategies.

A variety of assessment modalities are used for feedback, including narrative assessments

Assessments used as the basis for formative feedback involve a variety of testing modalities, including tests of knowledge and tests of performance, similar to what students will encounter via summative assessments. Whenever possible, students receive narrative assessment as part of both formative and summative feedback.

Responsibility for effective formative feedback is shared by teachers and students

The responsibility for effective formative feedback is shared by the teachers who provide it, and the students who receive it, who should be encouraged to welcome such feedback to support their learning.

Related to Support for Student Learning

Responsibility for academic advising is shared

Each of the following work collaboratively to organize efforts related to providing advice and other supports to assist individual students with their learning according to their needs: the Office of Health Professions Student Affairs; course directors and the Directors of Foundations/Preclerkship/Clerkship; student support groups; and, as needed, other medical education leaders (e.g. site directors, theme leads, individual teachers).

The MD Program facilitates the retrieval and review of assessment data in support of student learning

Results of assessment exercises are available promptly to students. They are also aggregated as needed (for instance via the "Learner Chart" in the Foundations Curriculum, or via monitoring of professionalism evaluations across clerkship rotations) so that students and their teachers can readily identify areas in need of greater attention.

FORMATIVE FEEDBACK AND SUPPORT FOR STUDENT LEARNING (continued)

Enabling Processes (continued)

Related to Support for Student Learning (continued)

The MD program promotes a culture which encourages early identification of students who may benefit from additional assistance with their learning.

Such a culture is supported by consistent messaging to students and teachers that it is very common for students to struggle with some aspects of the MD program, that it is a sign of a healthy and professional attitude to acknowledge areas where one needs assistance, and that assistance is both readily available and generally effective.

Identification of students who may benefit from additional assistance occurs through various means

Students who may benefit from additional assistance with their learning beyond the core curriculum may self-identify, based on reviewing results on various assessments and/or their subjective judgment about how they are progressing. They may also be advised by various teachers to consider seeking additional help based on their performance, including by: Course Directors; Academy Scholars in the Foundations Curriculum; site supervisors for individual rotations in the traditional block clerkship; site directors in the LInC.

Academic counseling is available to students from individuals who have no role in the curriculum

Students can seek confidential academic counseling from Student Affairs staff who play no part in student assessment or in decisions about promotion.

8. SUMMATIVE ASSESSMENT

Guiding Principle

The MD program ensures that *students have achieved the objectives and competency milestones* of each major phase of the program and of the program as a whole, before they move on to the next phase of training.

Relevant Accreditation Standards / Elements

- 9.4 Assessment System
- 9.5 Narrative Assessment
- 9.6 Setting Standards of Achievement
- 9.8 Fair and Timely Summative Assessment
- 9.9 Single Standard for Promotion/Graduation and Appeal Process
- 11.1 Academic Advising

Enabling Processes

Summative assessments are reliable and valid

Summative assessments during medical school are reliable, valid, linked to competencies and reflect the learning objectives of the course and the program. Results from assessment exercises that are used for summative judgments are also used to provide detailed feedback to students on the success of their learning.

Summative assessments use appropriate modalities

Summative assessments use several modalities, chosen according to what is most appropriate for the given objectives. Available modalities include but are not limited to written examinations, performance-based assessments, simulated activities, and direct observation of performance in the clinical domain.

Criteria for success on summative assessments are communicated to students

Students are given sufficient guidance so that they have clear expectations for what they need to achieve on a summative assessment.

Success on summative assessments is judged on a criterion-referenced basis

Standards for success on summative assessment decisions are “criterion-referenced”. This means that in order to achieve a passing grade, a student must achieve a certain level of performance on relevant assessments.

In some cases, individual assessments stand alone, and students must achieve a minimum passing grade on such an assessment in order to pass the course. There may be several such assessment procedures for a single course.

In other cases, results from individual assessments are aggregated with other results to determine whether a student has achieved the minimum standard with respect to a specific competency relevant to the course and/or the broader program. The aggregation procedures are established by designated leaders (e.g., the Clerkship Director, the Foundations Curriculum Progress Committee).

In all cases, the required level of performance is determined either by the course director or by other designated leaders (e.g., the clerkship director, the Foundations Curriculum Progress Committee). These minimum standards are established by methods appropriate to the assessment tool (e.g. a minimum global rating of “meets expectations” on an in-training evaluation report, or a borderline regression procedure for an OSCE examination).

The same standards apply to all students.

Narrative assessment

Whenever possible, students receive narrative assessment as part of both formative and summative feedback.

SUMMATIVE ASSESSMENT (continued)

Enabling Processes (continued)

Managing students who experience difficulty with summative assessments

- There is a clear procedure in place to permit students to request accommodations for an assessment procedure if they feel they require this, and to have the request adjudicated according to university regulations
- There is a clear procedure in place to provide academic support for students who do not succeed on an assessment, in order to maximize their chances of success on future assessments.
- Students have access to an appropriate appeals process.
- There are clear procedures in place to manage situations where students have failed a major assessment, an entire course, or an entire year, including procedures related to dismissal.

9. CURRICULUM EVALUATION

Guiding Principle

The MD Program engages in a program of *continuous quality improvement* based on evaluations of both the processes and outcomes of the program, in order to ensure its continued excellence.

Relevant Accreditation Standards / Elements

- 1.1 Strategic Planning and Continuous Quality Improvement
- 8.3 Curricular Design, Review, Revision/Content Monitoring
- 8.4 Program Evaluation
- 8.5 Use of Student Evaluation Data in Program Improvement
- 8.6 Monitoring of Completion of Required Clinical Experiences
- 8.7 Comparability of Education / Assessment

Enabling Processes

Quality improvement engages all stakeholders, and is overseen by a curriculum evaluation committee.

The continuous quality improvement process is a partnership among students, administrative staff, faculty members and the medical school leadership. The evaluation process is overseen by a Curriculum Evaluation Committee, which summarizes and interprets evaluation data, and makes recommendations to address areas in need of improvement. The Curriculum Evaluation Committee provides reports and recommendations to the Curriculum Committee and to the Vice-Dean MD Program.

Sources of data that are used for evaluation purposes

- Students' opinions about the quality of their experiences during medical school and at the time of graduation. There is a system in place to "close the loop" in response to feedback so that students are confident that their opinions are listened to.
- Outcomes of examinations and other assessments.
- Reviews by faculty and others of aspects of the curriculum.

Multiple elements of the program are evaluated, as follows:

- *The quality of individual courses and other curricular elements*
 - There is regular evaluation by students of all learning activities in the medical school. However, the burden of requests to students for such evaluation data should not be onerous.
 - The leadership of each course and other elements (such as the themes and components) produces an annual report that summarizes evaluation data and identifies areas in need of improvement.
- *Evidence of the attainment of program objectives by students*
 - The program defines various indicators of the degree to which students have achieved each of the program objectives.
 - The program uses results of these indicators to identify program objectives that a significant proportion of students are not achieving, as a basis for required curricular modifications.
- *The composition, coordination and integration of the program*

The program carefully and regularly reviews the content of the curriculum as a whole to ensure:

 - Comprehensive coverage of topics relevant to the medical program objectives
 - Appropriate curricular coordination and integration

The program welcomes input on the content and structure of the program from interested stakeholders such as advocacy groups, students and teachers.
- *The outcomes of the program as a whole*

The program gathers data on the overall success of the program, including but not limited to:

 - Performance of graduates on national licensing examinations
 - Success of graduates on the national residency matching process
 - Responses of graduates to questions on the Graduation Questionnaire
- *Comparability of the students' experiences and outcomes across instructional sites*