UNIVERSITY OF SASKATCHEWAN

COLLEGE OF MEDICINE

UNDERGRADUATE MEDICAL EDUCATION PROGRAM

EVALUATION STRATEGY

August, 2013
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1.0 Introduction

1.1 BACKGROUND TO THE UGME PROGRAM

The College of Medicine at the University of Saskatchewan offers a four-year undergraduate medical education program. For information regarding admission to the program, please see www.usask.ca/medicine/admissions/.

The MD program is designed to ensure that participants graduate with a common foundation of knowledge, skills, values and attitudes. This general professional education prepares undifferentiated graduates for subsequent education in primary or specialty care areas. Those with a research interest may consider application to the MD/MSc-MD/PhD program. http://www.usask.ca/medicine/education/undergrad/programs.php

The curriculum is under the direction of the Curriculum Committee, which reports directly to the Faculty Council of the College of Medicine. Significant curriculum revisions are being implemented; the descriptions below pertain to the Class of 2009.

The educational approach underlying our curricular planning is learning centered, making use of increasingly complex and relevant cases within the following broad approaches: Cooperative, Active, Self-Directed and/or Experiential learning (i.e., CASE-based). Students benefit from early and frequent patient contact, solid grounding in basic biomedical sciences and the frequent use of integrated case studies to link basic and clinical science learning. Our graduates are known for their sound clinical competence and initiative as they enter postgraduate residency education programs across the country. A Statement of Educational Philosophy was presented to faculty Council in March 2010.

Years One and Two of the program run from late August to May. Year Three runs from late August to the end of June, followed immediately by Year Four from July through April. The curriculum is divided into four phases:

Phase A – 33 Weeks in Year One

Students learn basic biomedical sciences, including Anatomy (Gross Anatomy, Histology and Cell Biology), Nutrition, Immunology, Physiology and Neurosciences, and are introduced to basic pathological concepts in Core Pathology. Elements of population health and evidence-based medicine are spread throughout Phases A, B, and C. They begin learning clinical medicine on a weekly basis in the classroom (Life Cycles and Humanities, Professional Issues) and in clinical settings (Professional Skills). Each student completes either a Community Service Project (throughout the academic year in Saskatoon) or a Community Experience (two weeks at the end of the academic year, after the examination period, elsewhere in Saskatchewan).

The end of Phase A is the first major promotion point in the curriculum.
**Phase B – 33 Weeks in Year Two**

Phase B begins the transition from basic biomedical and pathologic concepts to the Systemic Study of Disease (“Systems”), supported by Systemic Pathology, Microbiology, Genetics, and Pharmacology. Basic clinical skills learned in Phase A are honed through Clinical Sciences sessions in Internal Medicine (including Neurology), Surgery, and Pediatrics.

The end of Phase B is the second major promotion point in the curriculum.

**Phase C - 15 Weeks in Year Three (Term One)**

The Systematic Study of Disease and associated courses continue into Phase C. The students learn Clinical Skills pertaining to a broad spectrum of medical disciplines such as Obstetrics & Gynecology, Pediatrics, Psychiatry, Physical Medicine & Rehabilitation, and Geriatrics and Anaesthesia.

The end of Phase C is the third major promotion point in the curriculum.

Throughout the pre-clerkship phases, attention is given to a variety of so-called Vertical Themes, such as Ethics & Professionalism, Social Accountability, Integrative Medicine, Interprofessional Education, etc. There are ample opportunities for pre-clerkship clinical electives, summer externships and research projects. There are also opportunities for community engagement, such as participation in service to marginalized populations through the interprofessional SWITCH clinic (Student Wellness Initiative Toward Community Health) or involvement in Northern Saskatchewan and international communities from the “Making the Links” project.

**Phase D - 67 Weeks in Year Three (Term Two) and Year Four**

This is the Clinical Clerkship, during which students are assigned to a series of core, selective and elective clinical rotations. (Selectives are chosen from a defined set of options. Electives can be done in any discipline.) Theses provide the opportunity to apply what they have been learning in the day-to-day provision of patient care. As they demonstrate increasing clinical competence, they are given more responsibility for direct, supervised patient management. Clinical clerks at the University of Saskatchewan are known by the unique acronym of JURSI – Junior Undergraduate Rotation Student Intern.

To ensure that all students receive a robust clerkship experience with ample patient interaction, approximately 1/3 of the students are based at the Regina site for their Clinical Clerkship.

The core rotations include Anesthesiology (2 weeks); Family Medicine (6 weeks); Emergency Medicine (2 weeks); Internal Medicine, Neurosciences (12 weeks); Surgery (8 weeks), Obstetrics & Gynecology (6 weeks); Pediatrics (6 weeks); and Psychiatry (6 weeks). There are 12 weeks of elective time, usually done in 4-week blocks, and four weeks of selective time. There are 6 weeks of vacation, including two weeks over the Christmas/New Year break.
Students completing their final year of undergraduate studies are eligible to sit Part I of the Medical Council of Canada Qualifying Examination – the MCCQE (Canadian licensure also requires that they pass MCCQE Part II, which occurs in the fall of the second postgraduate year).

Successful completion of Phase D leads to graduation with the Doctor of Medicine degree. Students are then eligible to move on to postgraduate clinical education in programs of the College of Family Physicians of Canada or the Royal College of Physicians and Surgeons of Canada.

1.2 PURPOSE OF THE EVALUATION

This evaluation strategy is implemented by the Program Evaluation Sub-Committee, a sub-committee of the Curriculum Committee that reports to the Curriculum Committee Chair.

MANDATE:
To establish formal, ongoing program evaluation procedures to demonstrate the extent to which the College of Medicine is achieving its educational objectives. This strategy complies with Accreditation Standards ED-46 and ED-47, which pertain to evaluation of program effectiveness, as stated below:

ED-46. A medical education program must collect and use a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which its educational objectives are being met. The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program’s educational objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses and clerkships (or, in Canada, clerkship rotations) and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates’ preparation in areas related to medical education program objectives, including the professional behavior of its graduates.

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

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

To achieve these standards, several sources of data are gathered, including measurement of student satisfaction of their courses, clerkship rotations, and instructors as well as outcome data from a variety of sources that will be used by the Curriculum Committee, its sub-committees, and Year and other committees and working groups in curriculum design.
Our Statement of Educational Philosophy (March 2010) states, “We will use the most advanced and effective practices of evaluation to determine at both the course and program levels the extent to which (a) the intended curriculum has been implemented and (b) goals and objectives of our program have been realized.”

**OBJECTIVES:**

- Provide on a regular basis a variety of high quality and timely (a) outcome data and analyses (including national examinations of accomplishment) and (b) student evaluations of courses, clerkships, and instructors to the Curriculum Committee so that it may:
  - monitor the extent to which the planned changes to the UGME curriculum have been implemented
  - ensure that current and future curriculum changes meet program goals and objectives
- Monitor the implementation of the UGME Program Evaluation Strategy

### 2.0 Approach To The Evaluation

### 2.1 KEY PRINCIPLES

The development and implementation of the UGME Program Evaluation Strategy is based on the following key principles:

**2.1.1 Collaborative**

The strategy presented in this document takes a collaborative approach to the evaluation of the UGME Program. The evaluation has been, and will continue to be, a negotiated process (Guba & Lincoln, 1989; Louie, Byrne, & Wasylenki, 1996; O’Sullivan, 2004). It is characterized by a significant degree of collaboration among key stakeholders including administration, faculty, and students in both its development and implementation (Cousins, Donohue, & Bloom, 1996; Stern, 1996). Because responsibility and decision making is shared by key stakeholders, the evaluation is responsive to the needs of the UGME Program as well as those of program stakeholders (O’Sullivan, 2004). It is anticipated that this collaborative approach will result in increased stakeholder cooperation and involvement in the evaluation and receptivity to the findings and will serve to build evaluation capacity within the College of Medicine.

**2.1.2 Centralized**

The proposed strategy involves a shift from a decentralized evaluation system administered by individual departments and courses to a more centralized system administered through the Undergraduate Medical Education Office. It should be noted that the evaluation of the UGME Program is the responsibility of the MD Program Evaluation Sub-Committee which reports directly to the Curriculum Committee. The centralization of the evaluation process will facilitate
the overall assessment of the undergraduate curriculum as well as curricular change (Gerrity & Mahaffy, 1998).

2.1.3 Reflective
The UGME Program Evaluation Strategy is designed to promote reflective practice. As part of the reflective process, Phase/Course Coordinators are required to respond to student feedback. In this way, the evaluation will be central to curricular change and ongoing program development (Hendry, Cumming, Lyon, & Gordon, 2001; Louie et al., 1996; Spratt & Walls, 2003).

2.1.4 Student Involvement
Similar to evaluation strategies currently employed by the University of Manitoba and the University of British Columbia, the UGME Program Evaluation Strategy is characterized by considerable student involvement. As such, it facilitates curricular improvement and student learning through the integration of the curriculum planning and change processes (Louie et al., 1996). Students are actively involved in the ongoing evaluation and monitoring of courses and clinical rotations. They are encouraged to express their opinions and to provide feedback on content and pedagogical strategies as well as to make suggestions for improving the exchange of information.

2.1.5 Timely
The importance of acknowledging and responding to feedback in a timely fashion is recognized by the proposed evaluation strategy (Hendry et al., 2001). Timely feedback may, when appropriate, allow students to “witness changes to a course as they experience it, rather than moving on without ever knowing whether their recommendations had any affect” (p. 336). As well, the evaluation system supports staff development by providing practical, timely feedback to faculty. Information about the implementation and outcomes of the UGME Program will be communicated to key stakeholders, including program administrators, faculty and students, on a regular basis (Smith, Herbert, Robinson, & Watt, 2001; Stern, 1996; University of Saskatchewan, 2002).

2.1.6 Reliable and Valid
In order to ensure the reliability and validity of the findings of the evaluation of the UGME Program, data and methodological triangulation will be employed (Coombes, 2000; Milburn, Fraser, Secker, & Pavis, 1995; Whitman & Cockayne, 1984). Data will be examined from different sources and over time and a combination of qualitative and quantitative research methods will be used. In addition, all evaluation instruments will be designed in consultation with key stakeholders. Summary reports will be reviewed by key stakeholders in order to validate the findings.

2.1.7 Professional Standards
Our Statement of Educational Philosophy (March 2010) states, “We will use the most advanced and effective practices of evaluation to determine at both the course and program levels the extent to which (a) the intended curriculum has been implemented and (b) goals and objectives of our program have been realized.”
The evaluation of the UGME Program is therefore guided by the standards established by the Joint Committee on Standards for Educational Evaluation (Fitzpatrick, Sanders, & Worthen, 2004; Issel, 2004; Joint Committee on Standards for Educational Evaluation, 1994). Specifically, the evaluation will be: (1) informative, timely, and will meet the needs of key stakeholders (Utility Standard); (2) realistic, prudent, diplomatic, and economical (Feasibility Standard); (3) conducted legally and ethically protecting the rights of those involved (Propriety Standard); and (4) comprehensive and will communicate the findings accurately and appropriately (Accuracy Standard).

2.2 META-EVALUATION

The UGME Program Evaluation Strategy will be monitored on an ongoing basis by the MD Program Evaluation Subcommittee to ensure that: (1) the design is feasible; (2) activities are completed as planned and in a timely manner; and (3) instruments and products (data and reports) are of high quality (Fitzpatrick et al., 2004; Scriven, 1991). The strategy will be modified as needed and as appropriate.

2.3 EVALUATION MODEL

The model developed for the purpose of the evaluation of the UGME Program (see Figure 1) provides for the collection of formative (process and outcome) as well as summative (outcome) data. Formative data will be used to monitor the process of curricular change, to suggest and support additional changes to the curriculum, and to help understand what was done to achieve program outcomes by identifying gaps between program outcomes and implementation objectives (Gerrity & Mahaffy, 1998; O’Sullivan, 2004; Scriven, 1991). Furthermore, process evaluation data will provide a context for interpreting the findings of the outcome and impact evaluation (Issel, 2004). On the other hand, formative outcome evaluation data will primarily serve to answer the question (Nestel, 2002; Patton, 1998) – To what extent were the outcome objectives of the UGME Program achieved? It is anticipated that all formative data will be timely, concrete, and useful. Findings will be communicated to program administrators, faculty, and students on a regular basis. Summative evaluation data will assist program administrators when making judgments about the overall merit (or worth) of the UGME Program and to assess the achievement of outcome objectives (Fitzpatrick et al., 2004; O’Sullivan, 2004; Rossi, Freeman, & Lipsey, 1999). These data may also be used, for example, to determine the generalizability of curricular changes, the need for further restructuring of the curriculum, and/or the allocation of resources (Rossi et al., 1999; Scriven, 1991). Summative data will be used by external evaluators for accreditation purposes.
This strategy will consist primarily of process and outcome evaluations. However, some specific sources of data will also assess the unmet needs of medical students, reflecting needs assessment. The three evaluation components are discussed below.
Needs Assessment

Needs assessments will help to identify and measure the level of unmet needs within the UGME program at the U of S. Essentially, needs assessments will detect areas in which students may need additional training or preparation. Measures which may help detect areas of unmet need include the Goals and Objectives self-assessment (i.e., items which receive low overall ratings may be areas of unmet need) and comments provided through the SCRC and SMSS.

Process Evaluation

Process evaluation components of the evaluation framework will determine the extent to which the UGME curriculum is being implemented as intended. Specifically, this will examine the extent to which various intended aspects of the UGME program are:

- actually being delivered
- to the intended students
- in the intended amount
- at the intended level of quality

Specifically, the intended and actual goals, objectives, inputs, activities, and outputs of the UGME will be identified. Then, any discrepancies between what is intended and what is actually delivered will be highlighted. Measures included in the process evaluation component of this framework include course evaluations, examination reviews, and feedback from the SCRC.

Outcome Evaluation

Outcome evaluations measure the extent to which students are achieving various outcomes in accordance with the UGME’s goals and objectives. Such outcomes may include performance on the LMCC, achievement of the College’s goals and objectives as measured through self-assessment and PGY1 evaluations, and performance on re-tests of first year examinations.
2.4 OBJECTIVES OF THE EVALUATION

Based on the evaluation model presented above, the following objectives were developed for the UGME Program Evaluation Strategy:

**Formative Evaluation**

**Implementation Issues**
1. To assess the extent to which the curriculum is implemented as intended.
2. To assess the extent of the vertical and horizontal integration of content and competencies across the curriculum/Phases.
3. To determine the extent to which the specified competencies were incorporated within the planned UGME curriculum.
4. To identify factors that facilitated as well as inhibited the implementation of the UGME Program.
5. To identify Best Practices as they relate to the implementation of the program.
6. To identify the strengths and weaknesses of the UGME Program.
7. To determine the overall level of satisfaction of key stakeholders with the undergraduate medical program as appropriate.
8. To evaluate the extent to which the goals/objectives of individual courses and clinical clerkships are achieved.
9. To determine the level of knowledge/skill retention by students over time.
10. To determine the extent to which the specified competencies were acquired.
11. To determine the extent to which the program improved students’ educational skills (e.g., approaches to learned, communication skills, acquisition of information, etc.)
12. To identify unanticipated outcomes related to the UGME Program.
13. To identify the most relevant knowledge/skills acquired through the program.
14. To evaluate the extent to which the overall goals/objectives of the UGME Program were achieved.

**Summative Evaluation**
15. To assess the preparation of the graduates for clinical careers.
16. To identify curriculum content that will meet the needs of current and possibly, future clinical practice.

**Recommendations**
17. To provide feedback to the MD Program Evaluation Sub-Committee and Curriculum Committee to facilitate the future development and/or implementation of the UGME Program.
3.0 Methodology/Sources of Data

Table 1 presents an overview of the methodology/sources of data for the UGME Program Evaluation Strategy. Please see Appendix A for guidelines for evaluations and educational research conducted outside of this framework.

<table>
<thead>
<tr>
<th>Sources of Data</th>
<th>Needs Assessment</th>
<th>Process Evaluation</th>
<th>Outcome Evaluation</th>
<th>Timeline</th>
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<tr>
<td><strong>Internal Sources of Data</strong></td>
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<td></td>
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<td>Goals and Objectives Self-Assessment</td>
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<td>✔</td>
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<td>Course Evaluations</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>Every 2nd year/course, unless otherwise needed</td>
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<tr>
<td>Rotation Evaluations</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>After every rotation</td>
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<tr>
<td>Instructor Evaluations</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>As per accompanying course/rotation unless otherwise specified</td>
</tr>
<tr>
<td>Overall Clerkship Evaluations</td>
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<td>✔</td>
<td></td>
<td>Yearly - May</td>
</tr>
<tr>
<td>Content Relevance</td>
<td></td>
<td></td>
<td>✔</td>
<td>Ongoing together with exam reviews</td>
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<tr>
<td>Re-tests</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>Every 3rd year/course - March</td>
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<td></td>
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<td>Dept. Evaluations of PGY1s</td>
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<td>Yearly – September</td>
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<td>Yearly - May</td>
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<td><strong>Internal/External</strong></td>
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<tr>
<td>Correlation between LMCC and Grades</td>
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<td>For Classes 2007-2010, then every 3rd year unless significant changes to program</td>
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3.2 INTERNAL SOURCES OF DATA

3.2.1 Goals and Objectives Self-Assessment

The College has several stated goals and objectives reflecting Physician as: Medical Expert, Communicator, Health Advocate, Learner/Scholar/Scientist, Collaborator, Resource Manager/Gatekeeper/Steward, and Person. In order to better understand the extent to which the College is achieving these objectives, students complete self-assessments rating themselves both currently and retrospectively for the first day of medical school. Students complete this self-assessment both at the start and end of clerkship. Research indicates that aggregate self-assessments may serve as accurate indicators of performance (D’Eon et al., 2008). This source of data complies with Accreditation Standards ED-46 and ED-47 as it involves student evaluations of the College’s Goals and Objectives and serves as a source of outcome data. Comparisons of the responses given by Regina and Saskatoon students help satisfy Accreditation Standard ED-8, which requires students at all instructional sites to have comparable educational experiences.

3.2.2 Course Evaluations

In compliance with Accreditation Standard ED-47, a formal process of collecting and using student evaluation data has been established. Each course is evaluated every second year, unless the course has undergone significant changes or at the request of the Course Coordinator. For each course, a member of the UGME office reviews the standardized evaluation instrument with the Course Coordinator to ensure questions are included that reflect specific course objectives, core competencies, and/or significant curriculum changes (e.g., change in content, organization, delivery, method of student assessment, etc.). The standard set of evaluation questions with C.A.S.E are sent to the course coordinators four weeks before their evaluation will open. This gives the instructor the chance to change or add questions that are relevant to their course. The finalized evaluation form is administered to students using One45. Course evaluations are sent out the day of the final assessment and usually left open for four weeks after the course so students have the chance to comment on the exam. A sampling methodology is used where approximately half of the students in a class are selected to complete the evaluation. This method is intended to reduce evaluation fatigue and has been found to result in high response rates and reliable responses (Kreiter & Lakshman, 2005).

A student evaluation data summary is generated and sent to the Course Coordinator and the appropriate Year Chairs. For courses with students in multiple sites, responses given by students at different sites are compared, which meets the conditions of Accreditation Standard ED-8. Course change reports, recommending either: no changes, minor changes, major changes, or overall curriculum suggestions are generated. Major changes and overall curriculum suggestions are submitted to the Curriculum Committee. If approved, the changes are implemented by the Assistant Dean for Undergraduate Education.

The roles and responsibilities of key stakeholders are summarized below as are the sequential steps involved in the course evaluation process (Figure 2):
Figure 2: Course Evaluation Process

MD Program Evaluation Committee

Undergraduate Office

Review Process/Trends

Questions decided for course evaluations

Survey generated on one45

Course evaluation data collected

Student evaluation data summary generated once survey is closed

Student evaluation data summary sent to Course Coordinators and Phase Chairs

Evaluation findings discussed at appropriate meetings (e.g., Phase Committee meetings)

Course change reports generated on evaluation findings

Vice Dean

Course Coordinator responds to Phase Committee

SCRC

No course changes

Minor course changes

Major course changes

Curriculum change proposal

Curriculum Committee

If accepted, changes implemented by Vice Dean Education
3.2.3 Rotation Evaluations
In compliance with Accreditation Standard ED-47, a formal process for collecting and using student evaluations of clerkship rotations has been established. Clerks are sent a standard clerkship rotation evaluation via One45 at the end of each rotation. Currently, clerks evaluate every rotation they complete. Results from each rotation are collated every 6-9 months. This timeframe allows for a large enough sample size to help ensure respondent anonymity.

Evaluation summaries comparing rotations at different sites are generated and sent to the Clerkship Chair who disseminates the findings to the appropriate Rotation Directors. Comparisons of evaluations from different sites meet the requirements of ED-8, which states that students at all sites must have equivalent experiences. Findings are then discussed at clerkship meetings. The Clerkship Chair reviews evaluations of all rotations, identifies rotations that have potential problems and schedules meetings with the appropriate Rotation Directors to advise of identified issues. The Rotation Directors then meet with the tri-site Rotation Coordinators to develop the process for implementing major changes to a rotation, working with departments to bring the changes in effect. Proposed major changes are brought to the Clerkship Committee for approval. Once approved by the Clerkship Committee, changes are then submitted to the Curriculum Committee for approval. If approved by the Curriculum Committee, changes are implemented by the Rotation Directors and appropriate departments.

The roles and responsibilities of key stakeholders are summarized below as are the sequential steps involved in the rotation evaluation process:
Figure 3: Rotation Evaluation Process

Questions decided for rotation evaluations
Survey generated on One45
Rotation evaluation data collected
Rotation evaluation data summary generated every 6-9 months
Rotation evaluation data summary sent to Phase D Chair
Phase D Chair disseminates findings to appropriate Rotation Directors
Rotational Directors disseminate findings to appropriate Rotation Coordinators at all sites
Evaluation findings discussed at Phase D meetings
Phase D Chair further reviews rotation evaluations to identify problematic rotations and meets with the appropriate departments
Changes made based on evaluation findings
No rotation changes
Minor rotation changes
Major rotation changes
Curriculum change proposal

Phase D Committee
Curriculum Committee
If accepted, changes implemented by the Phase D Chair and departments
3.2.4 Instructor Evaluations
In compliance with Accreditation standard ED-47, a formal process for collecting and using information from student evaluations of their instructors has been established. Instructor evaluations are collected primarily for program evaluation and course improvement purposes, with aggregate results for a course reported to Year Committees and the Curriculum Committee. Results for individual instructors are provided to the instructor in question as well as their Most Responsible Planner (MRP), the faculty member with the more direct responsibility for the activities of a particular instructor at a particular site. MRPs are typically a course or module director or coordinator. Evaluation data is not distributed or used for faculty promotion and/or tenure purposes without the express consent of the faculty member in question. Below is a summary of the instructor evaluation process. Please see the complete instructor evaluation framework for a more comprehensive description.

Classroom teaching sessions with three or more instructors
Instructor evaluations are completed for all instructors who have taught at least three hours within a course or module, but only for courses/modules which are scheduled to be evaluated in the current academic year. Instructor evaluations are typically administered once per month. Students are typically taught by multiple instructors in a course, some of whom only teach one or two sessions. Completing evaluations more frequently allows students to provide feedback soon after being taught by a specific instructor, with the goal of obtaining more accurate feedback. Course Chairs/Directors/Coordinators (or, through assignment, their respective administrative assistants) are asked by year administrative assistants to provide a list on a monthly basis of all faculty who have completed all their teaching for that course for the current academic year. That list of instructors is evaluated by approximately 50% of students. For modules that are less than two months in duration, instructor evaluation questions may be completed at the same time as the standard module evaluation.

Classroom teaching sessions with fewer than three instructors
For courses with one or two instructors, instructor evaluation items are completed for all instructors regardless of number of hours taught at the same time as the standard course evaluation completed at the end of the course.

Small group/clinical sessions
Evaluations are administered at the end of small group sessions via the system of record. Each instructor is evaluated by 100% of the students in their small group.

Clerkship
Instructor evaluations are sent to each JURSI upon the completion of each of their rotations to assess the preceptors they spent the most time with during the course of the rotation. This is determined in consultation with the Departments.

Clerkship JURSI Academic Half Days
Each JURSI Academic Half Day (JAHD) is evaluated by 1/3 of the JURSIs. Thus, approximately 25 evaluations are completed for each JAHD.

Aggregate instructor evaluation results are included in standard course evaluation reports and are reported at the end of each course. Individual feedback is provided at appropriate intervals.
throughout the course. The roles and responsibilities of key stakeholders are summarized below as are the sequential steps involved in the course evaluation process (Figure 4).

**Figure 4: Instructor Evaluation Process**
3.2.5 Overall Clerkship Evaluations
JURSIIs evaluate their overall clerkship experience on items pertaining to how well the clerkship met its objectives and perceived preparation for residency. These questions are given yearly and are typically included with the Goals and Objectives Survey. This is in compliance with Accreditation Standard ED-47.

3.2.6 Content Relevance
It is important that the undergraduate curriculum contain material that is highly relevant to later medical practice. In order to help identify which content is relevant to general medical practice and which is not, final examinations from undergraduate courses are reviewed by practicing physicians, JURSIIs, or residents for relevance to general medical practice. Specifically, respondents are asked to rate each question on its relevancy to general medical practice (i.e., the frequency of the condition and its impact on the patient’s quality of life). At the same time a modified Angoff approach is used to help determine for each exam question its contribution to an exam cut score. This source of data helps meet the requirements of Accreditation Standard ED-33, which pertains to the overall design of a coherent and coordinated curriculum. It also helps satisfy the requirements of ED-46 and ED-47.

3.2.7 Re-tests
It is important for medical students to retain important information taught in their courses. In order to better understand the extent to which students retain specific information, and by extension which concepts are reinforced throughout the undergraduate program, volunteer students will periodically answer questions from earlier examinations solely for program evaluation purposes. It is intended that some questions from each class of will be retested every three years. This will serve as a source of outcome data to help satisfy the requirements of Accreditation Standard ED-46.

3.2.8 Student Feedback
Members of the Student Curriculum Review Committee (SCRC) sit on the Program Evaluation Sub-Committee. They are kept informed of evaluation results and will bring this to the attention of other SCRC members and students in general as required. They will also bring any student concerns to the attention of the Program Evaluation Sub-Committee.

Members of the SMSS that deal with curriculum-related issues sit on various chair committees (i.e., Year Committees, Systems Committees). They will bring back issues related to the evaluation to the SCRC as required. They will also bring any student concerns to the attention of the various committees as required.

3.2.9 Department Evaluations of PGY1s
It is intended that departmental evaluations of first year residents will be submitted to research staff from the UGME office. Analyses comparing the performance of residents who graduated from the U of S with those who completed their undergraduate training at another institution will be conducted. This will help identify areas in which the undergraduate curriculum is performing
well in preparing its graduates for residency and areas which need improvement. This will help satisfy the requirements of Accreditation Standard ED-46.

3.3 EXTERNAL SOURCES OF DATA

3.3.1 MCC Qualifying Examinations
Performance on the Medical Council of Canada Qualifying Examination (LMCC Part I and Part II) is tracked over time. Graduates’ average scores are compared to those of all candidates as well as those trained at other Canadian medical schools. This meets the requirements of ED-46 as it demonstrates, through the use of national norms of accomplishment, U of S graduate performance in comparison to other Canadian medical graduates.

3.3.2 Canadian Medical School Graduation Questionnaire
The results of the Canadian Medical School Graduation Questionnaire (AAMC) will be tracked over time. Feedback pertaining to the quality of educational experiences in clinical clerkships, teaching by resident physicians and fellows, the methods used to evaluate clinical skills, instructional time during rotations, the acquisition of knowledge and skills, and the graduates’ overall satisfaction with their medical education is of particular relevance to the evaluation of the UGME Program. Efforts will be made to increase response rates (e.g., time scheduled during a JURSI Academic Half Day to complete the questionnaire). The Program Evaluation Sub-Committee will review the graduation questionnaire reports on a yearly basis and forward to the appropriate committees. This helps satisfy Accreditation Standard ED-47.

3.4 INTERNAL/EXTERNAL SOURCES OF DATA

3.4.1. Correlation between LMCC Scores and Grades
In order to understand which courses are most associated with LMCC performance, correlation coefficients are conducted between grades for all undergraduate courses and LMCC performance. This will be done for the Classes of 2007-2010 and will be repeated at the request of the Curriculum Committee or Program Evaluation sub-Committee.
Bibliography


Professions, 19(2), 231-242.

UGME Program Evaluation Strategy September 2002


University of Saskatchewan (2002). Principles of evaluation of teaching at the University of Saskatchewan. Saskatoon, SK: Author.

Appendix A:

Evaluations and Educational Research Outside of this Framework

Instructors and other faculty/staff involved in medical education may wish to conduct their own evaluations independent of the UGME Program Evaluation Strategy. For example, instructors whose courses are not being evaluated sometimes choose to give their own evaluation for formative or course improvement purposes or instructors may wish to investigate the effectiveness of a specific component of their course. Those who wish to engage in such activities should be aware of the following guidelines.

Ethics Approval
Ethical approval is not required for course evaluations and other work pertaining to program evaluation. However, those who wish to publish their findings or who are conducting more complex evaluations should contact the Behavioural Research Ethics Board to discuss whether their project requires ethics approval or if they may receive a certificate of exemption from ethics review.

Item Development
It is important to use survey items that are clear, concise, and relevant to the research question. Those interested in developing their own instruments may contact Krista Trinder (krista.trinder@usask.ca) for consultation. It is also recommended that new items be reviewed for clarity by a group of at least 5 members of the target audience.

Item Distribution
Following the guidelines outlined in the Framework for Student Evaluation of Teaching at the University of Saskatchewan (2004):

> Teachers should not administer student evaluation instruments. The task should be given to a designated individual who will distribute the evaluations to the students and give them information about the how the material will be used; this person could be a student-volunteer, student representative or an administrator for the academic unit. Proper instruction and training should be given to individuals charged with administering student questionnaires. These individuals should be advised about the department’s or college’s evaluation philosophy and the proper protocols for gathering information. Students should be given enough time to complete the questionnaire and give feedback. It is recommended that evaluation instruments be administered at the beginning of a class. The optimum time period for administering a student evaluation during the term is after the deadline when students are permitted to withdraw from the course and prior to the last two weeks of the term.

Instructors may also choose to use collect data online. One45 is typically reserved for evaluations handled by the Undergraduate Office. The University of Saskatchewan endorses Fluid Surveys, and as such, this is an appropriate alternative. Instructors should arrange for online data collection to be handled by someone not in a position of authority over the students.
**Voluntary Nature of Evaluations**

Student participation in any evaluation and educational research projects outside of regular course and instructor evaluations are voluntary. Students need to be informed that their participation is voluntary and that they will not be penalized in any way for declining to participate. This should be stated explicitly in any consent forms or instructions given to students.

**Anonymity and Confidentiality**

Identifying information such as names and student numbers should not be collected unless necessary (i.e., the need to match pre and post data or to match survey data to other sources of data). In the event that identifying information is collected, data should not be viewed by the course instructor or anyone else in a position of authority over the students before being de-identified by someone who does not have a power-differential relationship with the students. When consent forms are signed, they must be stored separately from the data. Guidelines for appropriate access and storage of data are further described in documentation available through the Behavioural Research Ethics Office website: