



UNIVERSITY OF SASKATCHEWAN  
College of Medicine  
UNDERGRADUATE MEDICAL EDUCATION  
MEDICINE.USASK.CA



UNDERGRADUATE MEDICAL EDUCATION

# PROGRAM EVALUATION FRAMEWORK

JANUARY 2025

# CONTENTS

Introduction	02
Approach to the Evaluation	04
Methodology/Sources of Data	10
Internal Sources of Data	15
External Sources of Data	28
Internal/External Sources of Data	30
Bibliography	31

## List of Tables and Figures

Figure 1: UGME Program Evaluation Model	08
Figure 2: Data Sources for the Preclerkship Level	12
Figure 3: Data Sources for the Clerkship Level	13
Figure 4: Data Sources for the Overall Curriculum	14
Figure 5: Course Evaluation Process	16
Figure 6: Rotation Evaluation Process	19
Figure 7: Instructor Evaluation Process for Preclerkship	23
Figure 8: Instructor Evaluation Process for Clerkship	24
Table 1: Sources of Data for the UGME Program Evaluation Strategy	10





## INTRODUCTION

### BACKGROUND TO THE UGME PROGRAM

The College of Medicine at the University of Saskatchewan offers a four-year undergraduate medical education program.

The curriculum is under the direction of the Curriculum Committee, which reports directly to the Faculty Council of the College of Medicine.

Years One and Two of the program run from late August to May. Clerkship begins in third year. Year Three runs from July to June the following year, followed immediately by Year Four from August through April.

### PURPOSE OF THE EVALUATION

This evaluation strategy is implemented by the Program Evaluation Sub-Committee (PESC), 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 elements 8.4 and 8.5, which pertain to evaluation of program effectiveness, as stated below:

**8.4.** A medical school collects and uses a variety of outcome data, including national norms of accomplishment, to demonstrate the extent to which medical students are achieving the medical education program objectives and to enhance the quality of the medical education program as a whole. These data are collected during program enrollment and after program completion.

**8.5.** In evaluating medical education program quality, a medical school has formal processes in place to collect and consider medical student evaluations of their required learning experiences, teachers, and other relevant aspects of the medical education program.

## INTRODUCTION

To achieve these elements, 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.

# APPROACH TO THE EVALUATION

---

## KEY PRINCIPLES

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

### ***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.

### ***Centralized***

This strategy involves a 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 evaluation of the undergraduate curriculum as well as curricular change (Gerrity & Mahaffy, 1998).

### ***Reflective***

The UGME Program Evaluation Strategy is designed to promote reflective practice. As part of the reflective process, Year Chairs and Course Directors 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).

## APPROACH TO THE EVALUATION

### ***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.

### ***Timely***

The importance of acknowledging and responding to feedback in a timely fashion is recognized by the evaluation strategy (Hendry et al., 2001). 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).

### ***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.

### ***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."

## APPROACH TO THE EVALUATION

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).

### **METAEVALUATION**

The UGME Program Evaluation Strategy will be monitored on an ongoing basis by the MD Program Evaluation Sub-Committee 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.



## APPROACH TO THE EVALUATION

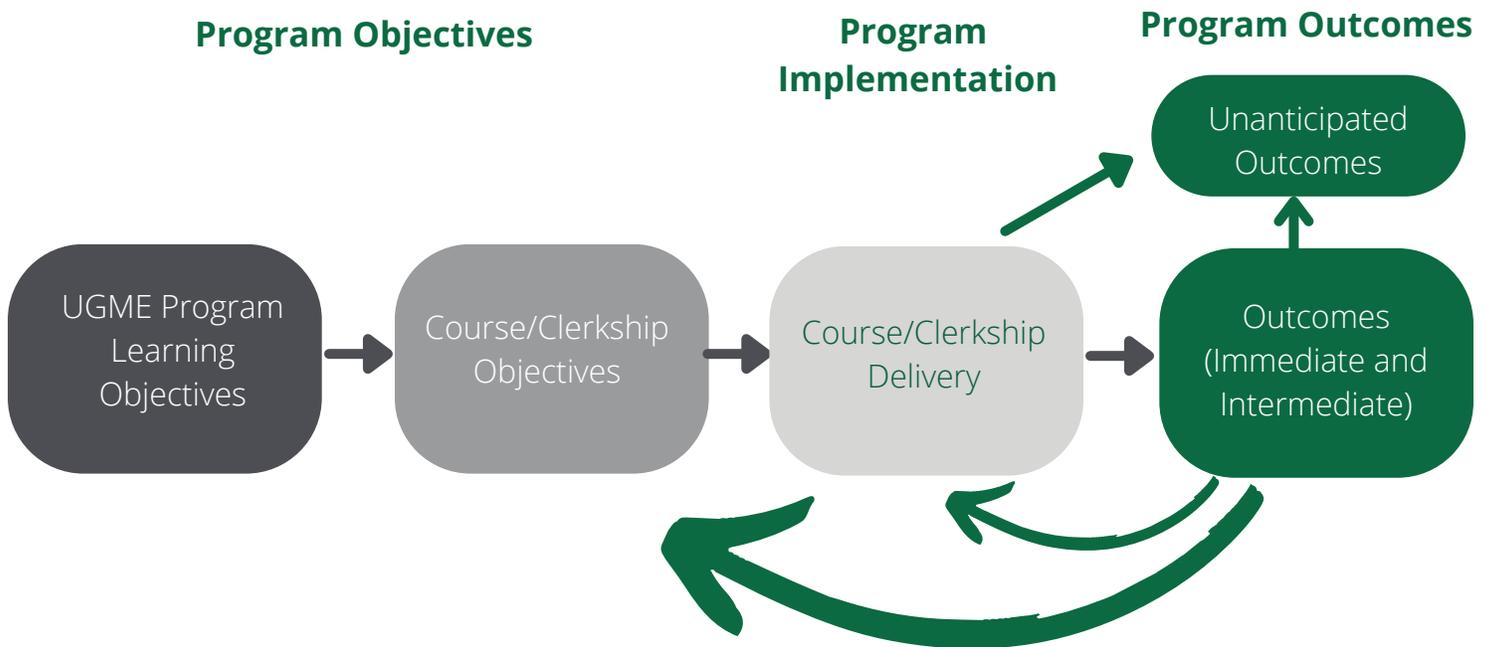
### EVALUATION MODEL

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.

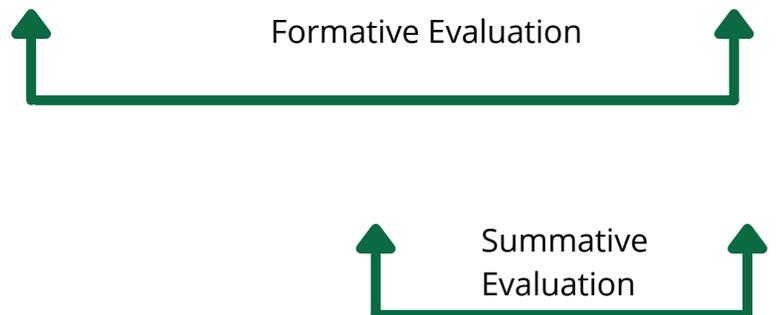
FIGURE 1 - UGME PROGRAM EVALUATION MODEL



**Sources of Data**

- Student Feedback
- Faculty Feedback
- Student Performance
- Student Feedback
- Faculty Feedback
- MCCQE I
- AFMC Graduation Questionnaire
- Program Learning Objectives Self-Assessment

**Type of Evaluation**



## APPROACH TO THE EVALUATION

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 Program Learning 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

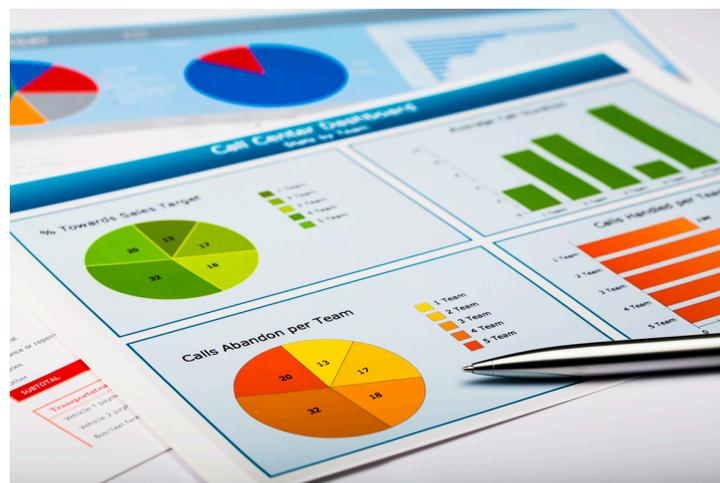
Specifically, the intended and actual goals, objectives, inputs, activities, and outputs of the UGME will be identified. Then, any discrepancies between what is intended and what is actually delivered will be highlighted. Measures included in the process evaluation component of this framework include course evaluations 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 MCCQE, achievement of the College's Program Learning objectives, and specialty choices of graduates.

## METHODOLOGY/SOURCES OF DATA

SOURCES OF DATA	NEEDS ASSESSMENT	PROCESS EVALUATION	OUTCOME EVALUATION	TIMELINE
<b>INTERNAL SOURCES OF DATA</b>				
Course Evaluations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Yearly
Rotation Evaluations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		After every rotation
Instructor Evaluations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		As per accompanying course/rotation unless otherwise specified
Program Learning Objectives	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Post core rotations
Narrative Feedback	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Yearly, as requested
End of Year Evaluations Completed by Students	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Yearly
Grade Comparisons between Campuses	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Ongoing
SCRC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Ongoing



## METHODOLOGY/SOURCES OF DATA

SOURCES OF DATA	NEEDS ASSESSMENT	PROCESS EVALUATION	OUTCOME EVALUATION	TIMELINE
<b>EXTERNAL SOURCES OF DATA</b>				
MCCQE Part I			<input checked="" type="checkbox"/>	Yearly
AFMC Graduation Questionnaire		<input checked="" type="checkbox"/>		Yearly
Specialty choices of graduates			<input checked="" type="checkbox"/>	Yearly
Practice location of graduates			<input checked="" type="checkbox"/>	Yearly
<b>INTERNAL/EXTERNAL SOURCES OF DATA</b>				
Predicting MCCQE I Performance		<input checked="" type="checkbox"/>		Every 3rd Year unless Significant changes to the Program



FIGURE 2 - DATA SOURCES AT THE PRECLERKSHIP LEVEL

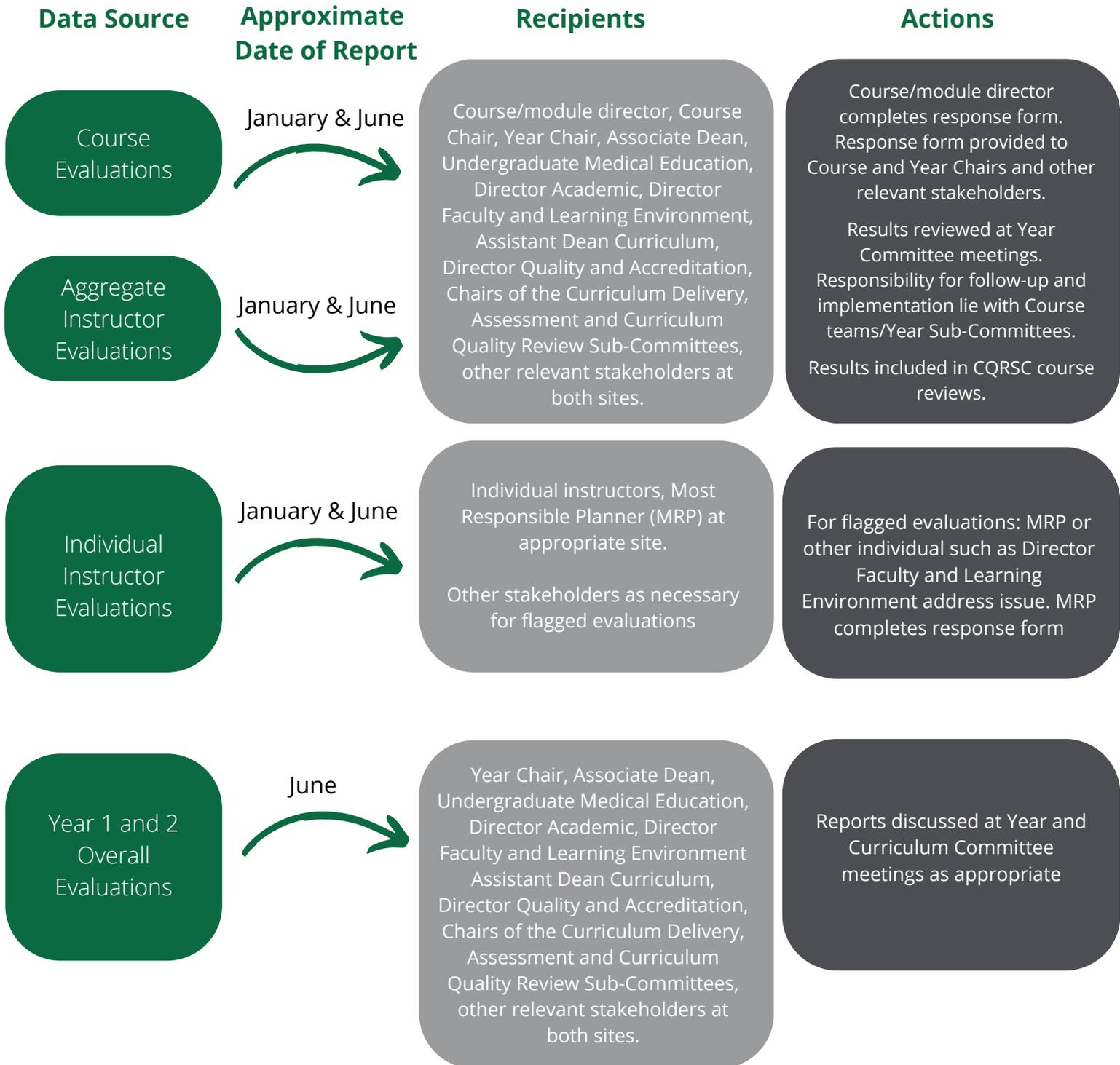


FIGURE 3 - DATA SOURCES AT THE CLERKSHIP LEVEL

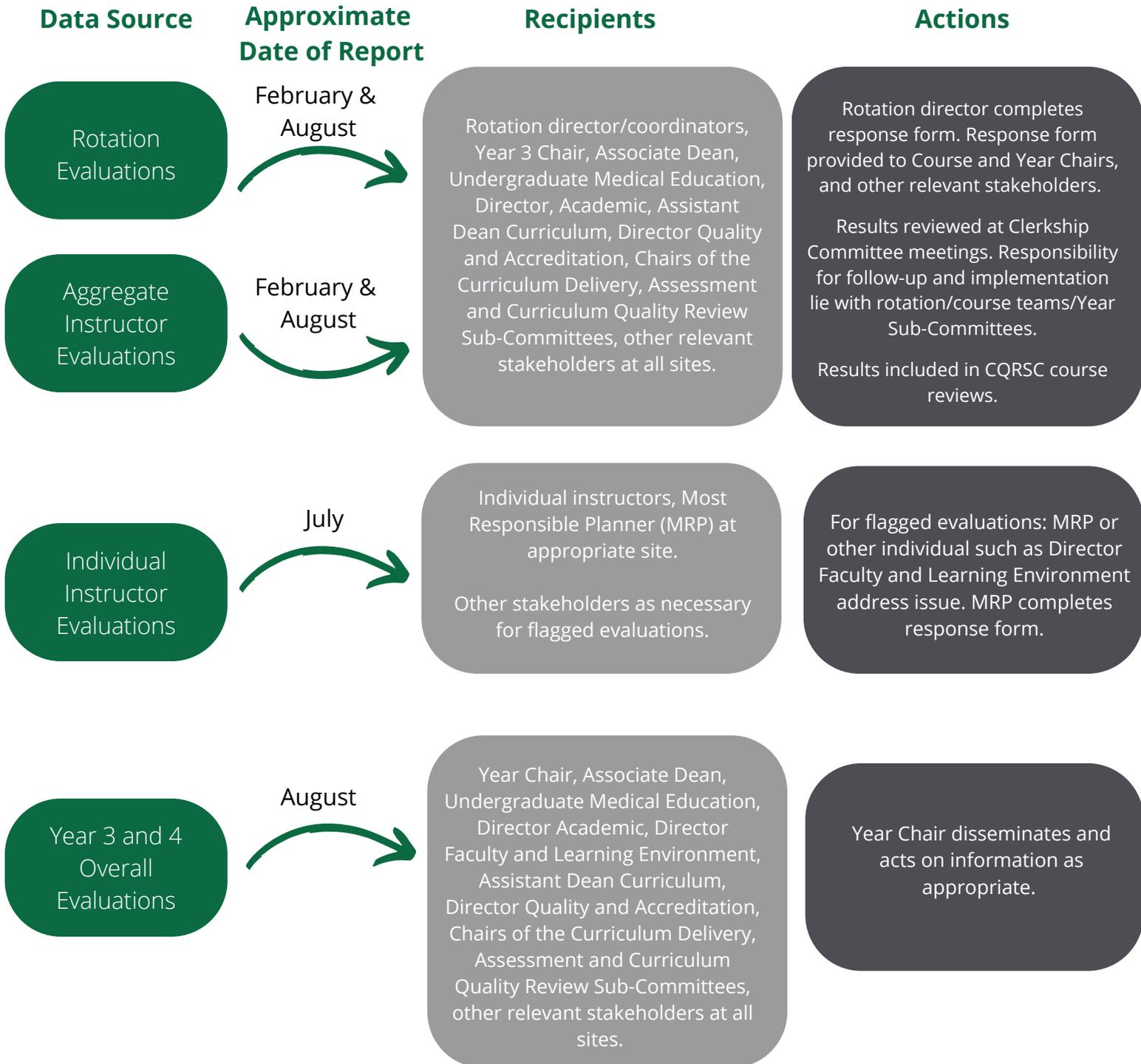


FIGURE 4 - DATA SOURCES FOR THE OVERALL CURRICULUM



## INTERNAL SOURCES OF DATA

### Course Evaluations

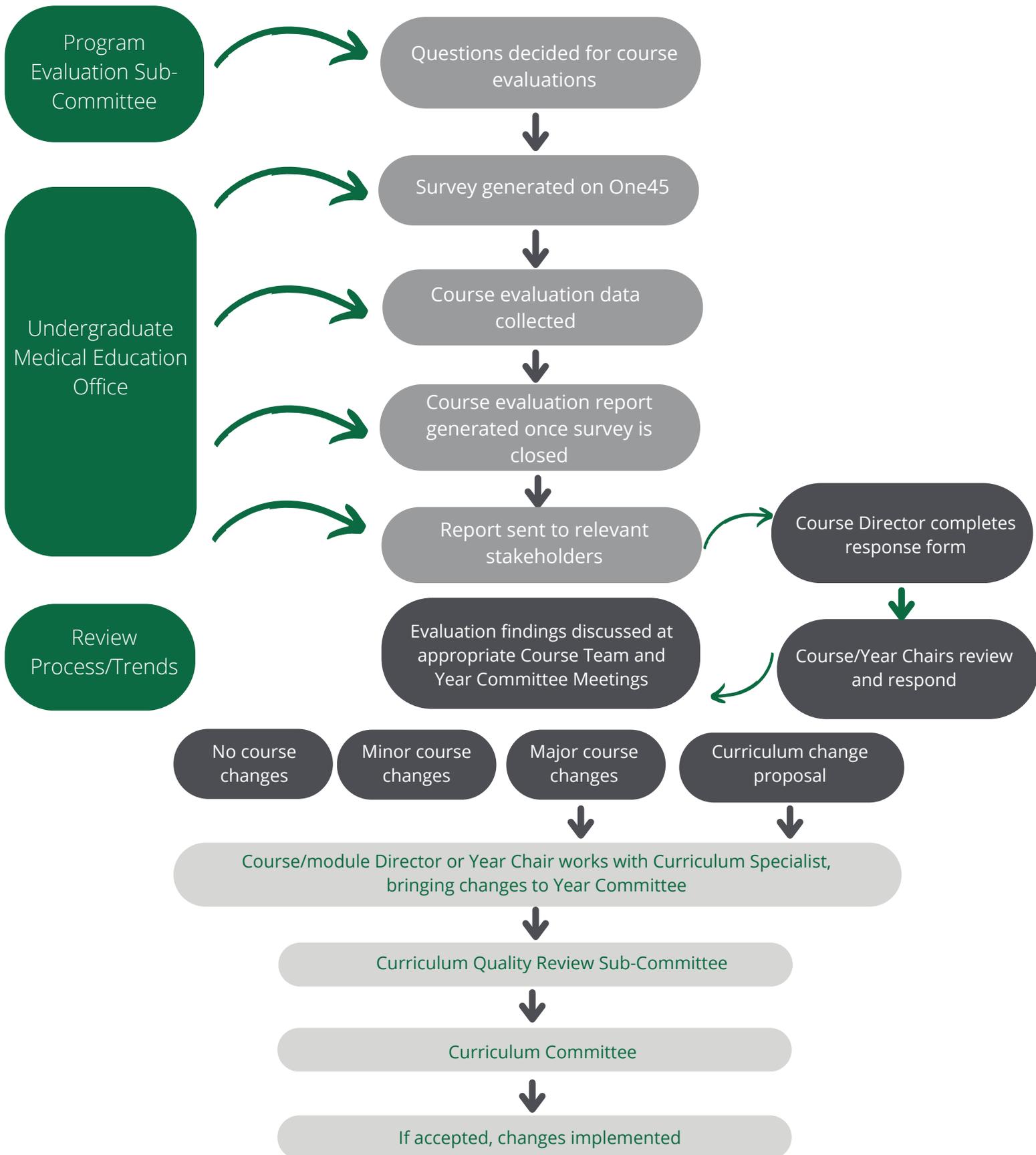
In compliance with Accreditation element 8.5, a formal process of collecting and using student evaluation data has been established. Each pre-clerkship course is evaluated annually with forms sent through One45. Whenever feasible, dedicated class time is set aside for students to complete evaluations and forms are usually left open for four weeks to help ensure high response rates.

An evaluation report is generated and sent to the: Course Director; Course Chair; the appropriate Year Chair; the Associate Dean, Undergraduate Medical Education; Director, Academic; Director, Faculty and Learning Environment; Assistant Dean Curriculum; the Director, Quality and Accreditation the Chairs of the Curriculum Delivery, Assessment, and Curriculum Quality Review Sub-Committees as well as other appropriate personnel at relevant sites. The Chair of the Assessment Sub-Committee is also sent a file listing courses that may have assessment concerns. For courses with students in multiple sites, responses given by students at different sites are compared, which meets the conditions of Accreditation element 8.7.

A summary comparative document of course evaluations is shared with the Year Committees and Curriculum Committee following each term/year completion. A course director response form is completed by the person most responsible for the course/module. Appropriate Course and Year Chairs review the director response forms and provide a response. Proposed major changes that impact curricular mapping are made through consultation with of the Curriculum Specialist are brought to the Year Committee for approval. Once approved by the Year Committee, changes are then submitted to the Curriculum Quality Review Sub-Committee (CQRSC) for approval. Once approved by the CQRSC, recommendations are presented to the Curriculum Committee. If approved, the changes are then implemented. Responsibility for follow-up and implementation lie with Course teams/Year Sub-Committees.

The roles and responsibilities of key stakeholders are summarized below as are the sequential steps involved in the course evaluation process (Figure 5):

FIGURE 5 - COURSE EVALUATION PROCESS



## INTERNAL SOURCES OF DATA

### **Clerkship Rotation Evaluations**

In compliance with CACMS element 8.5, 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 are asked to evaluate every rotation they complete. Results from each rotation are collated at least every six months.

Site evaluation summaries comparing rotations at different campuses are generated to meet the requirements of element 8.7, which states that students at all sites must have equivalent experiences. These reports are sent to the: Year 3 Chair; appropriate Rotation Directors; appropriate tri-site Rotation Coordinators; the Associate Dean, Undergraduate Medical Education; Director, Academic; Director, Faculty and Learning Environment; Assistant Dean Curriculum; Director, Quality and Accreditation; the Chairs of the Curriculum Delivery, Assessment, and Curriculum Quality Review Sub-Committees, as well as other appropriate personnel at different sites. A list of rotations that may have assessment concerns is sent to the Chair of the Assessment Sub-Committee. Rotation Directors complete Rotation Evaluation response forms that are then reviewed by the Year 3 Chair/site leads.

Findings are then discussed at clerkship meetings. The Year 3 Chair may further review evaluations of all rotations, identify rotations that have potential problems and schedule meetings with the appropriate Rotation Directors to advise of identified issues. The Rotation Directors may 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 that impact curricular mapping are made through consultation with of the Curriculum Specialist brought to the Clerkship Committee for approval. Once approved by the Clerkship Committee, changes are then submitted to the Curriculum Quality Review Sub-Committee (CQRSC) for approval. Once approved by the CQRSC, recommendations are presented to the Curriculum Committee. If approved by the Curriculum Committee, changes are implemented by the Rotation Directors and appropriate departments. Responsibility for follow-up and implementation lie with Rotation/course teams/Year Sub-Committees.

## INTERNAL SOURCES OF DATA

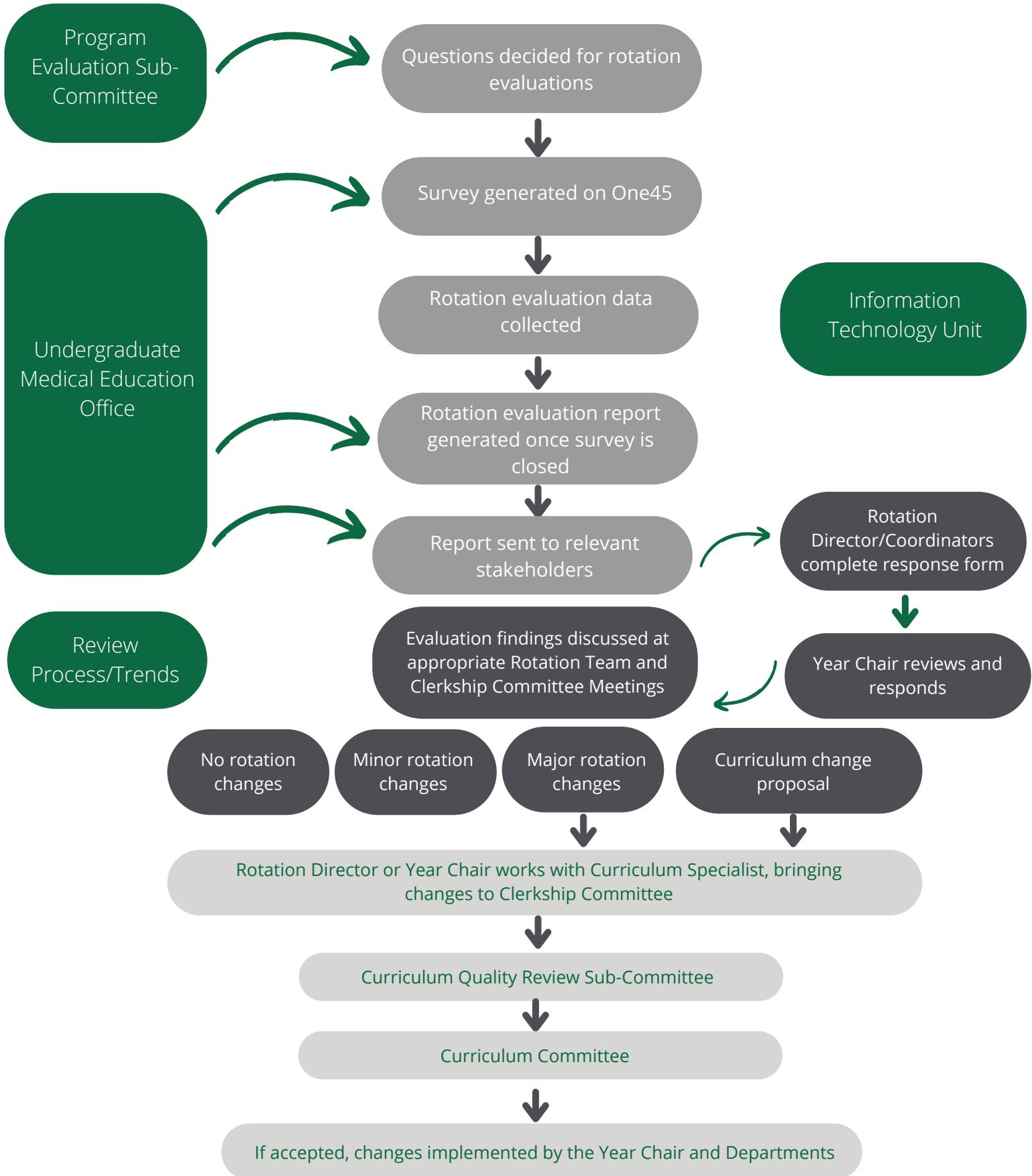
Electives are evaluated in a similar manner to that described above. Students are sent an evaluation form through One45 at the end of each elective, following a similar process to that described above. To help protect student anonymity, results are not released until at least three students have completed an elective.

For students who participate in the Saskatchewan Longitudinal Integrated Clerkship (SLIC), an evaluation is sent via One45 both midway through the academic year as well as the end of the academic year. Questions are similar to the standard rotation evaluation questions, reworded as necessary. The process for dissemination is the same as for clerkship rotations, described above, but with the inclusion of SLIC leadership.

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



FIGURE 6 - ROTATION EVALUATION PROCESS



## INTERNAL SOURCES OF DATA

### Course and Rotation Overall Reviews

In addition to the process described for course and rotation evaluations, overall reviews of individual courses also take place retrospectively. This occurs within the course/module/rotation teams as well as at the Year SubCommittees, Program Evaluation SubCommittee and Curriculum Committee. The Program Evaluation Specialist and SubCommittee participate heavily in this process with course evaluation data being presented at PESC, Year SubCommittees and at Curriculum Committee.

A collated spreadsheet is maintained that incorporates key points identified in the course evaluations iteratively and over time. This data organization also includes course director responses to the feedback, plans for next steps, and actions implemented.

Retrospective course reviews supported by the Program Evaluation Specialist in collaboration with the Assessment Specialist are prepared as a single document and include student performance data, course evaluation data, course director planning for the next iteration and follow up on that planning for greater loop closure. This is in compliance with Element 8.3



## INTERNAL SOURCES OF DATA

---

### **Instructor Evaluations**

In compliance with Accreditation element 8.5, 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. Below is a summary of the instructor evaluation process. Please see the complete [instructor evaluation framework](#) for a more comprehensive description.

### ***Preclerkship***

Instructor evaluations are completed for all instructors who have taught at least two hours within a course or module. Exceptions may be made on a course by course basis. Instructor evaluations are typically administered once an instructor is done teaching in a specific course, although exceptions may apply. UGME staff responsible for sending evaluations obtain schedules of when instructors complete their teaching in specific courses on a regular basis. Approximately 30% of students are asked to evaluate instructors teaching large group sessions who meet the criteria for evaluation to help reduce evaluation fatigue. All students in a small group are asked to evaluate those who teach in small group settings. Options for students to evaluate instructors they were not specifically sent forms for may be provided.

## INTERNAL SOURCES OF DATA

### *Clerkship*

Instructor evaluations are sent to each student upon the completion of each of their rotations and in-province electives to assess the preceptors they spent the most time with during the course of the rotation. This is determined in consultation with the Departments. Options for students to evaluate instructors they were not specifically sent forms for may be provided.

### *Selected Topics*

One third of students are asked to evaluate each Selected Topics session.

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. Aggregate instructor evaluation results are also included in rotation evaluation reports. The roles and responsibilities of key stakeholders are summarized below as are the sequential steps involved in the course evaluation process.



FIGURE 7: INSTRUCTOR EVALUATION PROCESS FOR PRECLERKSHIP

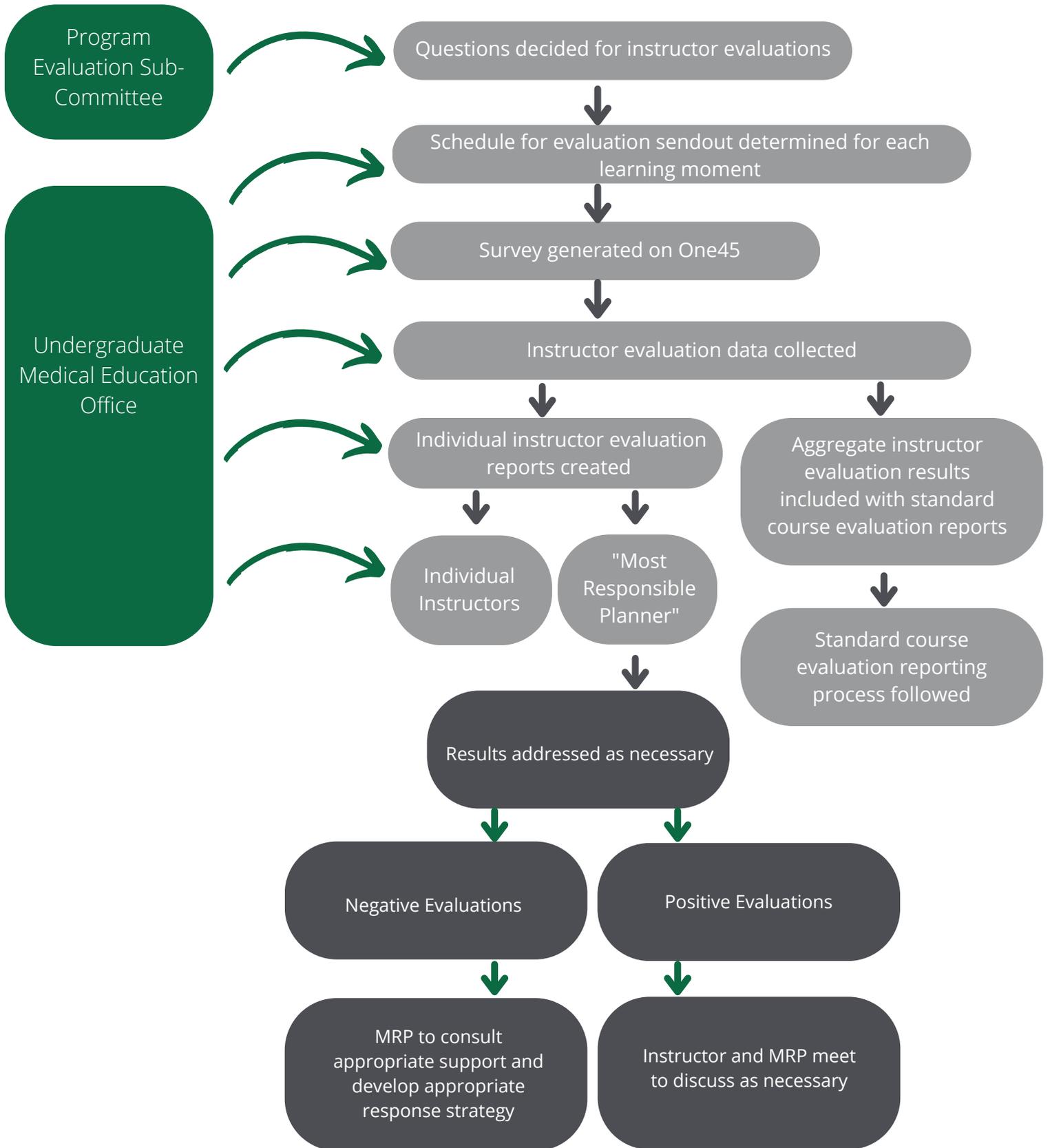
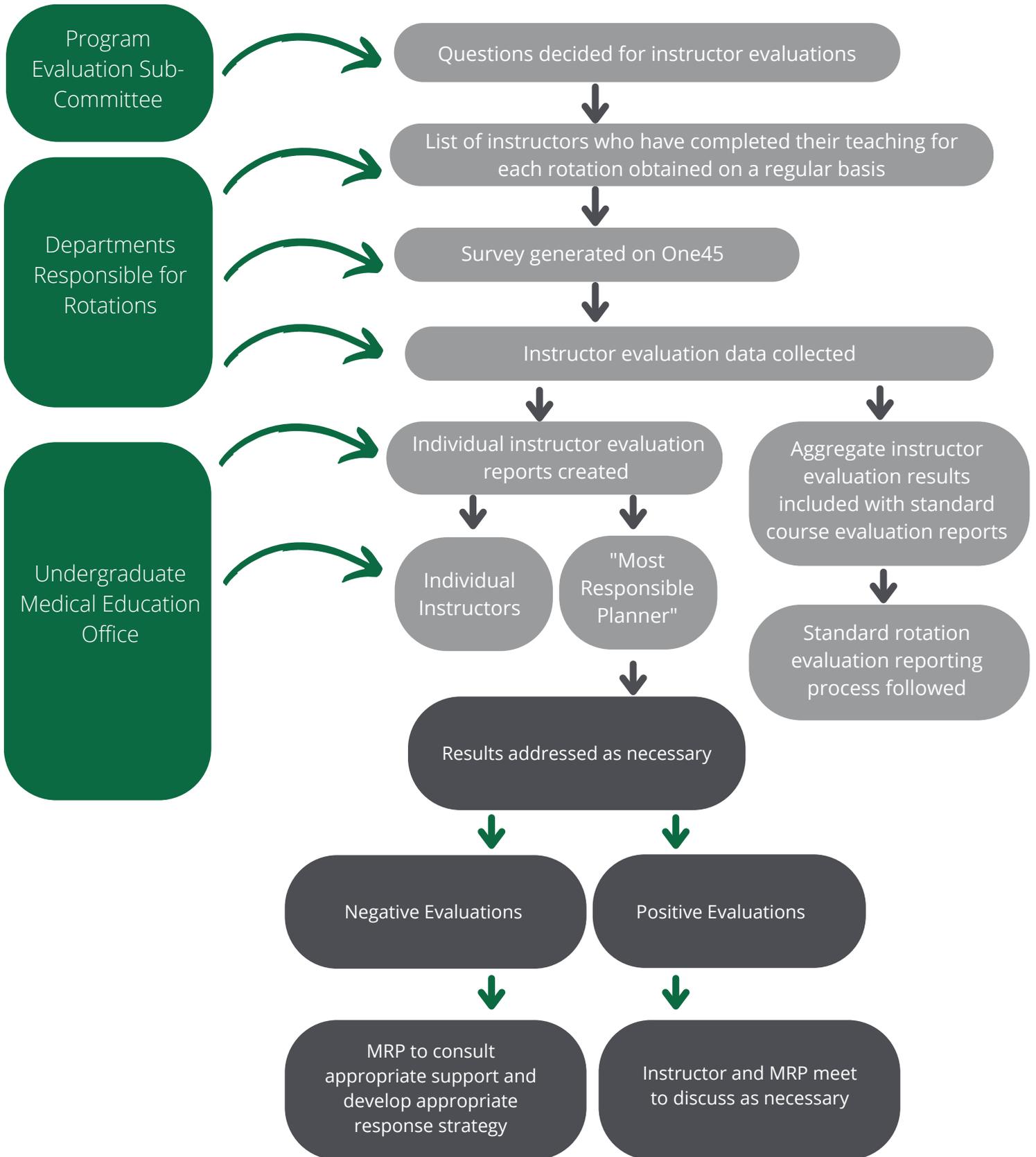


FIGURE 8: INSTRUCTOR EVALUATION PROCESS FOR CLERKSHIP



## INTERNAL SOURCES OF DATA

### **Program Learning Objectives Self-Assessment**

The College has several stated program learning objectives (PLOs) reflecting Physician as: Medical Expert, Communicator, Collaborator, Leader, Health Advocate, Scholar, and Professional. In order to better understand the extent to which the College is achieving these objectives, students complete self-assessments rating themselves both currently, retrospectively for the first day of clerkship, and retrospectively to the first day of medical school. Students complete this self-assessment after core rotations have finished. Research indicates that aggregate self-assessments may serve as accurate indicators of performance (D'Eon et al., 2008; D'Eon & Trinder, 2013; Peterson et al., 2012).

This source of data complies with Accreditation elements 8.4 and 8.5 as it involves student evaluations of the College's PLOs and serves as a source of outcome data. Comparisons of the responses given by Regina and Saskatoon students help satisfy Accreditation element 8.7, which requires students at all instructional sites to have comparable educational experiences.

The Assistant Dean, Curriculum, and Curriculum Specialist review the PLO report and provide a written response summarizing trends, noting potential areas of concern, and recommendations for actions to address concerns. The PLO self-assessment report and response is presented to PESC and the Curriculum Committee.

### **Narrative Feedback**

On a yearly basis, or as requested, a report of the narrative feedback provided by instructors to students for select courses/modules will be created and sent to the module directors or relevant curricular unit lead (rotation, discipline, etc.). Specific assessments will be chosen by the course directors or Chair of the Assessment Sub-Committee. This feedback will help course directors, module directors, and discipline leads better determine the quality of feedback provided by instructors and direct them to faculty development where appropriate. It will be used for program evaluation and quality assurance purposes. Responsibility for implementation lies with module and course directors, or other stakeholders, as deemed appropriate. This is in accordance with CACMS element 9.5.

## INTERNAL SOURCES OF DATA

### **End of Year Evaluations Completed by Students**

At the end of the academic year, students in Years 1 and 2 evaluate their overall experience that year. These the Health Education Learning Environment Survey (HELES; Rusticus et al., 2019), a validated measure of learning environment, to help meet element 3.5. Results are shared with the: Year Chair; Associate Dean Undergraduate Medical Education; Assistant Dean Curriculum; Director, Quality and Accreditation; Director, Academic; Director, Faculty and Learning Environment; Chairs of the Assessment, Curriculum Delivery, and Curriculum Quality Review Sub-Committees as well as other relevant stakeholders.

Clerks evaluate their overall Year 3 experience on items pertaining to their overall experience that year, residency preferences, and consolidation week. Depending on the total number of questions, this survey may also include the Program Learning Objectives (PLOs) self-assessment or HELES. To help reduce evaluation fatigue, the PLOs self-assessment, described below, and HELES are given on an alternating basis, with each given every 2nd year. Clerks evaluate their overall Year 4 experience on items pertaining to their overall experience that year, items pertaining to choosing electives, perceived preparation for residency, and items about the Preparation for Residency course.

Reports are prepared summarizing results. When appropriate, comments are coded into common themes. Results from these evaluations often corroborate information provided on evaluations of required learning experiences and allow those in leadership positions to better gauge feedback on the program as a whole. Results are shared with the year chair, associate dean UGME, assistant dean curriculum, director quality and accreditation, director academic, chairs of the Assessment, Curriculum Delivery, and Curriculum Quality Review Subcommittees as well as other relevant stakeholders.

This is in compliance with CACMS element 8.5. Regina and Saskatoon results are compared, which is in accordance with element 8.7.

The Assistant Dean, Curriculum and Curriculum Specialist review the report prepared by the Program Evaluation specialist and identify themes common across multiple curriculum iterations. Information is provided to explain the steps taken to address concerns. The Program Evaluation Specialist and the Director, Faculty and Learning Environment prepare a brief report summarizing HELES trends and noting whether further investigation or action are recommended. These reports are presented at PESC and at the Curriculum Committee.

## INTERNAL SOURCES OF DATA

### **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.

### **Grade Comparisons between Campuses**

Statistical analyses are conducted to compare grades between Regina and Saskatoon students for appropriate courses and rotations. This is done on an annual basis to help meet CACMS element 8.7. Results are shared with appropriate Year Chairs and the Curriculum Committee.



## EXTERNAL SOURCES OF DATA

### **MCC Qualifying Examination**

Performance on the Medical Council of Canada Qualifying Examination (MCCQE Part I) 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 element 8.4 as it demonstrates, through the use of national norms of accomplishment, U of S graduate performance in comparison to other Canadian medical graduates. It also meets element 8.7 as overall performance of Regina and Saskatoon graduates are compared. Results are shared with the Curriculum Committee and other relevant stakeholders.

The Assistant Dean, Curriculum and Curriculum Specialist review the report and comment on trends for topics which have consistently low performance and on how well U of S scores compare to the CMG mean. This report is presented at PESC and at the Curriculum Committee.

### **Canadian Medical School Graduation Questionnaire**

The results of the Canadian Medical School Graduation Questionnaire (AFMC) are tracked over time. Reports are generated showing areas of improvement and decline from the previous year as well as site comparisons between Regina and Saskatoon. Results are shared with the Curriculum Committee, PESC, the Clerkship Subcommittee, and other relevant stakeholders.

The Assistant Dean, Curriculum and Curriculum Specialist review the report prepared by the Program Evaluation specialist and identify areas that were consistently problematic or where similar concerns were brought forth elsewhere. Notes are added to explain steps taken to address concerns. Although the Assistant Dean, Curriculum and Curriculum Specialist are primarily responsible for completing the report, others responsible for areas identified (e.g., rotation directors) may be tasked with providing responses. This report is presented at PESC and at Curriculum Committee.

## EXTERNAL SOURCES OF DATA

---

### **Specialty Choices of Graduates**

Yearly information on match rates and specialty choices is obtained from CaRMS. A report is prepared detailing the number and percentage of matches by specialty to programs in SK and outside of SK. Trends in matches to Family Medicine as well as matches to a program in Saskatchewan are monitored. Results are also compared to national data, where available. More general results on specialty choices are obtained from CAPER census data. This is in accordance with CACMS element 8.4.

The Assistant Dean, Curriculum and Curriculum Specialist review the report prepared by the program evaluation specialist and comment on areas of the curriculum that may influence specialty choice. These include components of the curriculum focusing on family medicine as well as availability of various electives. This report is presented at PESC and at the Curriculum Committee.

### **Practice Location of Graduates**

The College of Physicians and Surgeons of Saskatchewan (CPSS) register is searched to identify which graduates are located in SK along with their community of practice. Reports also include the proportion of our graduates who are practicing in rural areas in SK. The database tracking graduate practice location is updated annually. Practice location information is also obtained through the CAPER provincial reports. CAPER data allows for comparison to other provinces/regions.

Results are shared with the Program Evaluation Sub-Committee, Director Academic, Director Faculty and Learning Environment, Admissions Director, the Curriculum Committee and the Director Student Services. This is in compliance with CACMS element 8.4.

The Program Evaluation Specialist and Associate Dean, UGME prepare a brief report summarizing practice location data trends and noting whether additional steps should be taken. This report is presented at PESC and at Curriculum Committee.

## INTERNAL/EXTERNAL SOURCES OF DATA

---

### **Predicting MCCQE Performance**

In order to understand which courses are most associated with MCCQE Part I performance, correlation coefficients and regression analyses are conducted between grades for undergraduate courses and MCCQE performance.



## BIBLIOGRAPHY

- Bax, N.D.S., & Godfrey, J. (1997). Identifying core skills for the medical curriculum. *Medical Education*, 31, 347-351.
- Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.
- College of Medicine (2004). *Information guide 2004-2005: Undergraduate medical students*. Saskatoon, SK: College of Medicine, University of Saskatchewan.
- Coombes, Y. (2000). Combining quantitative and qualitative approaches to evaluation. In M. Thorogood & Y. Coombes (Eds.), *Evaluating health promotion: Practice and methods*. New York, NY: Oxford University Press Inc.
- Cousins, J.B., Donohue, J.J., & Bloom, G.A. (1996). Collaborative evaluation in North America: Evaluators' self-reported opinions, practices, and consequences. *Evaluation Practice*, 17(3), 207-226.
- D'Eon, M., Sadownik, L., Harrison, A., & Nation, J. (2008). Using self-assessments to detect workshop success: Do they work? *American Journal of Evaluation*, 29, 92-98.
- D'Eon, M.F., & Trinder, K. (2013). Evidence for the validity of grouped self-assessments in measuring the outcomes of educational programs. *Eval Health Prof.* doi: 10.1177/0163278713475868.
- Fitzpatrick, J.L., Sanders, J.R., & Worthen, B.R. (2004). *Program evaluation: Alternative approaches and practical guidelines* (3rd ed.). Boston, MA: Person Education, Inc.
- Guba, E.G., & Lincoln, Y.S. (1989). *Fourth generation evaluation*. Newbury Part: CA: SAGE Publications, Inc.
- Gerrity, M., & Mahaffy, J. (1998). Evaluating change in medical school curricula: How did we know where we are going? *Academic Medicine*, 73(Suppl. 9), S55-S59.
- Guglielmino, L. (1977). *Development of the Self-Directed Learning Readiness Scale*. Doctoral Dissertation. University of Georgia.

## BIBLIOGRAPHY

---

Hendry, G., Cumming, R., Lyone, P., & Gordon, J. (2001). Student-centred course evaluation in a four-year, problem based medical programme: Issues in collection and management of feedback. *Assessment and Evaluation in Higher Education*, 26(4), 327-339.

Issel, L.M. (2004). *Health program planning and evaluation: A practical, systematic approach for community health*. Mississauga, ON: Jones and Bartlett Publishers, Inc.

Joint Committee on Standards for Educational Evaluation. (1994). *The program evaluation standards: How to assess evaluations of educational programs* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Kreiter, C. D., & Lakshman, V. (2005). Investigating the use of sampling for maximising the efficiency of student-generated faculty teaching evaluations. *Medical Education*, 39, 171-175.

Louie, B., Byrne, N., & Wasylenki, D. (1996). From feedback to reciprocity: Developing a student-centered approach to course evaluation. *Evaluation and the Health Professions*, 19(2), 231-242.

UGME Program Evaluation Strategy September 2002 1 6

Milburn, K., Fraser, E., Secker, J., & Pavis, S. (1995). Combining methods in health promotion research: Some considerations about appropriate use. *Health Education Journal*, 54, 347-356.

Nestel, D. (2002). Development of an evaluation model for an introductory module on social medicine. *Assessment and Evaluation in Higher Education*, 27(4), 301-308.

O'Sullivan, R. (2004). *Practicing evaluation: A collaborative approach*. Thousand Oaks, CA: SAGE Publications, Inc.

Pabst, R., & Rothkotter, H. (1997). Retrospective valuation of undergraduate medical education by doctors at the end of their residency time in hospitals: Consequences for the anatomical curriculum. *The Anatomical Record*, 249, 431-434

## BIBLIOGRAPHY

Patton, M.Q. (1998). *Utilization focused evaluation*. Newberry Park, CA: SAGE Publications, Inc.

Peterson, L.N., Eva. K.W., Rusticus, S.A., & Lovato, C.Y. (2012). The readiness for clerkship survey: Can self-assessment data be used to evaluate program effectiveness? *Acad Med*, 87(10), 1355-60.

Rossi, P.H., Freeman, H.E., & Lipsey, M.W. (1991). *Evaluation: A systematic approach* (6th ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Rusticus, S.A., Wilson, D., Casiro, O., & Lovato, C. (2019). Evaluating the quality of health professions learning environments: Development and validation of the Health Education Learning Environment Survey (HELES). *Evaluation & the Health Professions*. 1-16.

Scriven, M. (1991). *Evaluation Thesaurus* (4th ed.). Newbury Park, CA: SAGE Publications, Inc.

Smith, C., Herbert, D., Robinson, W., & Watt, K. (2001). Quality assurance through a Continuous Curriculum Review (CCR) Strategy: Reflections on a pilot project. *Assessment and Evaluation in Higher Education*, 26(5), 489-502).

Spratt, C., & Walls, J. (2003). Reflective critique and collaborative practice in evaluation: Promoting change in medical education. *Medical Teacher*, 25(1), 82-88.

Stern E. (1996). Developmental approaches to programme evaluation: An independent evaluator's perspective. In *Evaluating and reforming education systems*. Paris: Organization for Economic Co-Operation and Development.

Sukkar, M. (1984). An approach to the question of relevance of medical physiology courses. *Medical Education*, 18, 217-221.

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

Whitman, N.A., & Cockayne, T.W. (1984). *Evaluating medical school courses: A user-centered handbook*. Salt Lake City, UT: University of Utah School of Medicine.