

## **FINAL ASSESSMENT REPORT**

### **Institutional Quality Assurance Program (IQAP) Review**

#### **Health Research Methodology Graduate Programs**

**Date of Review: March 31<sup>st</sup> and April 1<sup>st</sup>**

*In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the graduate programs delivered by Health Research Methodology. This report identifies the significant strengths of the program, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.*

*The report includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.*

#### **Executive Summary of the Review**

In accordance with the Institutional Quality Assurance Process (IQAP), the Health Research Methodology program submitted a self-study in February 2022 to the Vice-Provost and Dean of Graduate Studies to initiate the cyclical program review of its graduate programs. The approved self-study presented program descriptions, learning outcomes, and analyses of data provided by the Office of Institutional Research and Analysis. Appendices to the self-study contained all course outlines associated with the program and the CVs for each full-time member in the department.

Two arm's length external reviewers and one internal reviewer were endorsed by the Dean, Faculty of Health Sciences, and selected by the Vice-Provost and Dean of Graduate Studies. The review team reviewed the self-study documentation and then conducted a review on March 31<sup>st</sup> and April 1<sup>st</sup>, 2022. The visit included interviews with the Provost and Vice-President (Academic); Vice-Provost and Dean of Graduate Studies, Vice-Dean and Associate Dean, Grad Studies and Research, Assistant Dean for Health Research Methodology and meetings with groups of current students, full-time faculty and support staff.

The Assistant Dean of the program and the Dean of the Faculty of Health Sciences submitted responses to the Reviewers' Report (April 2022 and August 2022). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

- **Strengths**

- excellent diversity of students who seem happy and proud of their experiences (particularly relative to peers elsewhere)
- excellent employment prospects for graduates (academia, government, industry) with especially plentiful opportunities in Health Technology Assessments and Biostatistics
- clear student support by Kristina and Lorraine who are available and skilled in their administrative positions (including channeling grievances)
- inevitable gaps in administrative staff handled by a smart flexible Assistant Dean who seems committed the mission and has strong 1-on-1 outreach to individual faculty
- smart revamping of PhD comprehensive course following earlier review recommendations of last review
- clear interval improvements in intermittent interactions and expressed respect from full-time faculty toward part-time faculty
- relatively few mandatory courses for PhD student (n=3) was seen as a strength that allowed plenty of flexibility for added courses plus adequate time for thesis work
- meaningful capacity building that bolsters the health research mission of the entire university by training a large broad cohort of health care researchers
- student association has been distinctly helpful while maintaining terrific synergy from departmental administrative support
- good capacity for students to select courses that match their own interests and tailor specific course assignments to strengthen their own projects
- helpful diploma course for individuals seeking course-based MSc without requirements for formal thesis work
- outstanding core introductory course that provides a comprehensive profile of the terrain as well as unified grounding despite diverse backgrounds
- high demands for regression training has led to increased courses offered and thereby demonstrates the relevance and adaptability of the program
- provides a gentle off-ramp for some health sciences undergraduates who are not admitted into medical school
- wonderful opportunity to learn critical thinking skills and diverse analytic approaches to different health domains from a wide variety of courses
- terrific institutional tradition and reputation for excellence in problem-based learning and hands-on projects
- marvelous internship opportunities that allow students to work with a different faculty member who is not their own thesis supervisor
- fantastic institutional reputation with world-renowned faculty that is especially valued by non-clinical students and graduates
- demonstrated ability to grow and create new courses in new fields over time that expand the entire portfolio of offerings

- **Areas for Enhancement or Improvement**

- strive toward continual synergies between departmental priorities and advancing the goals of the entire university
- need to ensure counseling systems to connect qualified students who lack faculty supervisors despite efforts to assign supervisors at the time of acceptance
- need to continually organize and show to students which courses are organized and when they are offered because many courses not offered each year
- need to continually provide quick clear constructive feedback to part-time faculty who want to improve and document their teaching (especially now with on-line learning)
- keep part-time faculty donating their time by offering gracious recognition, symbolic free parking, workshops on special topics, and opportunities for informal gatherings
- stay sensitive to the major ongoing stresses from soft money that contribute to faculty facing multiple responsibilities
- perhaps consider building more bridges to collaborate with researchers in global health and public policy as a means of boosting the larger HEI initiative
- think carefully around impending retirements in HTA stream that leave gaps and that may represent opportunities to update the HTA curriculum
- be aware of ongoing gaps in Qualitative Research methodology that leave some students hungry for more such opportunities
- contemplate more upper-level courses on advanced methodology (including working with ICES database)
- need to clarify whether to start new courses on evaluating artificial intelligence and machine learning (or delegate explicitly to other departments)
- ensure and document that all students obtain core training in human subjects, ethical conduct of science, and Institutional Review Board credentials for research
- need to clarify and communicate consistent guidelines for matching funding for students who need support with faculty who may have insufficient funds
- perhaps monitor inequities in student supplemental funding that reflects the availability of Teaching Assistant positions and idiosyncratic negotiations with faculty
- review courses to ensure all students in all programs have an understanding of sources of bias, importance of blinding, and other core research concepts
- encourage all clinically based students to participate in a prospective clinical project aiming to acquire practical understanding of what is required
- link training in SAS, R, or other statistical software packages to courses where students will need to use it.

**Summary of the Reviewers' Recommendations with the Department's and Dean's Responses**

Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation
Develop a system for tracking long-term data on the current positions and accomplishments of graduates in academia, industry, government, or private practice to provide strong evidence of program impact broadly	We will adopt the process that we developed during the IQAP review whereby graduates will be identified 5 years after graduation through searches using Google, Linkedin and Google Scholar. This procedure identified 39/40 graduates from the class of 2017.	HRM Program	Beginning with graduates prior to 2017 (5 year follow-up) and annually searching graduates within the 5 year timeframe.
Conduct serious regular reviews of faculty for activity, productivity, and controversies (includes both original vetting and subsequent annual assessments)	<p>HRM will discuss this recommendation with the Chair of the Health Research Methods, Evidence &amp; Impact department, and its Appointments, Promotions and Tenure Committee as this recommendation would fall under their governance.</p> <p>We will expand the current process where each course coordinator reviews the evaluation results for their course and then the faculty contributing to that course are either asked to continue in future years or are dropped from that course. In addition, we will add a formal process whereby the Assistant Dean will review the results identified by the course coordinator regarding faculty member assessments. for each course. We will also ask each course coordinator to provide a plan of action for the foreseeable future regarding their intentions to continue with that course or consideration for transitioning to another course.</p> <p>We are aware that the HEI department reviews faculty appointments and makes an assessment of teaching contributions. This occurs annually for full time faculty (by the departmental chair) and every three years for part time faculty (by the Appointments Tenure and Promotions committee).</p>	Dr. Levine to follow-up with Dr. Iorio	At next meeting (6-8 weeks)
Ensure students and faculty are aware of the penalties for falsification, fabrication, or distortion of	This is already standard procedure whereby all graduate students are required to complete the Academic Integrity module and quiz by the completion of their first term in order to remain enrolled in the program.	Dr. Levine to suggest to SGS per follow-up from HRM Self-study.	The supplementary action to begin in the fall 2022, when in-person large gatherings can facilitate the required discussion.

evidence contributing to health misinformation	<p>Suggest SGS and the Office of Academic Integrity explore including a module on <i>falsification, fabrication or distortion of evidence contributing to health misinformation</i> or disinformation in SGS 101.</p> <p>Brainstorm with HRM students and Faculty strategies to combat health misinformation.</p> <p><a href="https://pubmed.ncbi.nlm.nih.gov/28109320/">https://pubmed.ncbi.nlm.nih.gov/28109320/</a></p>		
Initiate more regular wide communication by leadership to all faculty to help address allegations about a lack of transparency (particularly over funding)	<p>This is the domain of the HEI department chair. Recently a process has been implemented.</p>	HEI Chair	
Decide and mandate centrally requirements for on-line vs. in-person time; in addition, and label courses accordingly as an aid for students in their planning	<p>This is currently being done in the peri-COVID environment. To date all requirements have come from the university vice-provost and with additional guidance provided by the Associate Dean Graduate Studies for FHS.</p> <p>We expected that courses will resume to in-person learning, unless the course was developed to be specifically online (at the time of GPCC approval)</p> <p>Our course timetable, which is available to all students on the program's web site, has always provided information regarding whether courses are in-person or on-line. This will continue.</p>	HRM Program Staff will work with individual course coordinators.	By June 2022.
Continually update the curriculum to reflect "real world" applications (examples might be to incorporate Artificial Intelligence and Analytics into curriculum)	<p>We will reach out to the Faculty of Engineering where we have already had two students do AI related electives, and try to create a more formal arrangement for graduate studies (e.g. dual listings) in this area.</p> <p>Additional opportunities may involve other universities.</p>	HRM will explore possible partnerships with Engineering or other Ontario Universities.	May – September 2022 and ongoing
Perhaps expand the complement of research methods in the curriculum to be	<p>We already have a number of cross listed courses with other schools (e.g. Nursing, Rehabilitation) to complement our curriculum with courses where we do not have sufficient faculty resources to offer these courses (i.e., qualitative methods). We will continue</p>	Discussions by HRM A.D. with sister Schools and	Ongoing

more comprehensive (examples could include more on Qualitative Methods)	<p>to explore additional teaching opportunities with sister programs e.g. Health Policy PhD, Master of Public Health, etc.</p> <p>When new faculty are recruited into the HEI department we will continue to approach this as an opportunity to expand the menu of courses offered in our curriculum, commensurate with the knowledge and skill set of the new faculty member.</p>	Graduate Programs.	
Perhaps consider more opportunities for greater networking between alumnae (especially recent graduates). Provide links between graduates and soon-to graduate students for job opportunities.	<p>The Alumni list (recommendation #1) will help the HRM Program Office to connect with Graduates.</p> <p>The HRM Student's Association (HRMSA) runs an alumni event near the end of the academic year.</p> <p>The HRM Program will be celebrating 50 years of graduates and we will highlight the graduates and explore opportunities for in-course students to connect with graduates.</p> <p>We regularly send out emails to graduate students regarding job opportunities that arise. We will continue including recent graduates on this email list (for 3 additional years after graduation) provided they are willing to submit any new email addresses they may have adopted.</p>	HRM staff will connect with HRMSA re potential graduate speakers and next steps.	May – December and ongoing
Perhaps reschedule initial student orientation from September to July to provide more help for those who begin in the summer (may need repeat version later)	This has already been in place for many years. Obviously (based on the inclusion of this recommendation in the report) there are some students who have missed out on these sessions even though the information is repeatedly circulated to the students by email. We will try to identify why that might happen for some students.	Follow-up with students by staff.	July & September, ongoing
Perhaps organize an in-person once-weekly informal drop-in session or lunch-and-learn session where students interact for more student-to-student teaching	<p>This was standard procedure in the pre-COVID environment. We had in-person lunch and learn sessions, town hall meetings, and an active student room where the students were interacting with faculty, program staff and their colleagues.</p> <p>The lunch and learn sessions and the town hall meetings were still conducted on-line during the pandemic, albeit at a more frequent rate to try to compensate for the lost spontaneous in-person opportunities.</p>	Staff and the HRM A.D.	When COVID restrictions abate we will resume the more interactive in-person activities.
Perhaps mandate a once per semester obligatory in-	This is always challenging because students do not want to miss scheduled classes (per the course attendance policy) and at least one course is likely to	Staff and the HRM A.D.	Start mandatory components with the next semester.

person information session for students (with allowances for those with special conflicts)	<p>be offered during every morning or afternoon during the week.</p> <p>What we have done is to scheduled information sessions during lunch hour, but they have always been elective. We can indicate that they are mandatory, but there would be a limitation to effective enforcement or consequences for absences.</p>		
Perhaps have more online modules available, archived, and advertised that explain how to use relevant computer software (e.g., SAS).	<p>The creation and availability of online modules to assist students with the relevant computer statistical software packages was implemented a few years ago. We will assess the needs to determine if more are required.</p> <p>We will also improve our communication to the students about these resources, as it would appear that some students were unaware of this.</p>	Program staff will highlight this and remind students regularly of this resource.	<p>May 2022</p> <p>Regular reminders: July, September for the incoming students</p>
Ideally consider more visible branding and other methods to explain the department's relevance to the broader McMaster university community	We will request that the HEI department consider this topic for its next in-person departmental retreat.	HRM A.D. in collaboration with HEI department chair	When departmental retreats resume in a post COVID environment.
Ideally encourage more professors to have their lectures recorded in an effort to enhance access for students who are not available	<p>We will work with the AV resources and the Macpherson institute to improve the feasibility of implementing this.</p> <p>While this can work effectively for lectures, most of our courses are composed of small group discussions in tutorials which will be a limiting factor (logistical and privacy issues).</p>	HRM staff working with Macpherson institute	Starting next semester.
Ideally need more emphasis on retaining faculty who are not clinicians and face dry periods in their funding	This is in the domain of the HEI department and the Faculty of Health Sciences.	HEI department chair	
Ideally consider more specific funding for faculty who are otherwise on soft positions (perception of being undervalued)	This is in the domain of the HEI department and the Faculty of Health Sciences.	HEI department chair	

Ideally introduce one new bold exciting initiative to combat a worrisome sense of stasis than some individuals expressed	This is an excellent suggestion which we will try to address annually in a discussion with our teaching faculty. This may be either through a HRM program or an HEI faculty retreat, to brainstorm ideas and new direction	HRM A.D. in collaboration with HEI department chair and HEI department education coordinator.	In a post COVID environment.
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### Faculty Response

The report is, unfortunately, very brief; many possibly helpful ideas were not clearly explained, contextualized, or supported with evidence. For example, the reviewers comment in point form that someone should “strive toward continual synergies between departmental priorities and advancing the goals of the entire university”. This seems like an important notion and it would be good to understand its meaning with respect to HRM.

During the site visit, the reviewers focused on some areas that are out of scope for an academic program review, and some of these ideas appear in the recommendations. In particular, there are suggestions about departmental matters of faculty relations, including faculty retention and salary sources, monitoring faculty productivity and “controversies”, and counselling faculty on academic integrity. The Faculty acknowledged that the program did respond to some of these comments, and they will bring them to the attention of the Chair of Health Research Methods, Evidence and Impact (HEI), which is the administrative home of the program.

Notwithstanding the challenges posed by the report, they reviewed the program’s response and support their plans to address the recommendations. They were confident that the most appropriate of the reviewer’s suggestions will be carefully considered by the HRM program leaders. They do note that some suggestions arise from issues that are likely longstanding in the program; these include issues of broader access to methodological courses, tracking and networking of alumni, career counselling, training in software. They also note that the HRM Self-Study was quite similar to that submitted for the last IQAP review, seven years prior. In this regard, the final line from the reviewers’ report has a particular resonance. They exhort the program to try a bold new idea annually to combat a “worrisome sense of stasis”. Again, it would have been helpful to understand more about the stasis they observed, but the Faculty agreed that the program is generally excellent and that the occasion of the review is an opportunity to re-evaluate its freshness and relevance as a destination of choice for future health researchers. In their response, the program leaders express enthusiasm for the reviewers’ suggestion and they will raise the broader issue with the Chair of HEI to further consider the place of the program among the department’s priorities.



**Quality Assurance Committee Recommendation:**

**McMaster's Quality Assurance Committee (QAC) reviewed the above documentation, and the Committee recommends that the Health Research Methodology Graduate Programs should follow the regular course of action with an 18-month progress report and a subsequent full external cyclical review to be conducted 7 years after the start of the last review.**