FINAL ASSESSMENT REPORT

Institutional Quality Assurance Program (IQAP) Review

eHealth M.Sc.

Date of Review: October 21st – 23rd , 2020

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 eHealth graduate program. 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 eHealth program submitted a self-study in March 2020 to the Vice-Provost and Dean of Graduate Studies to initiate the cyclical program review of its graduate program. 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 Deans, Faculties of Business, Health Sciences and Social Sciences, and selected by the Vice-Provost and Dean of Graduate Studies. The review team reviewed the self-study documentation and then conducted a remote review on October21st- 23rd, 2020. The review included interviews with the Provost and Vice-President (Academic); Vice-Provost and Dean of Graduate Studies, Associate Dean, Grad Studies and Research, Director of the program and meetings with groups of current students, full-time faculty and support staff.

The Director of the program and the Deans of the Faculty of Business, Health Sciences and Social Sciences submitted responses to the Reviewers' Report (December 2020 and March 2021 respectively). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

- **Strengths**
  - The interdisciplinary nature of the program with participation with three different faculties.
  - The internship is central to the program, and effectively managed and run by the current coordinator. It is the principal tool that ensures student success and the achievement of learning outcomes for the program.
  - The dedication of the teaching staff and its current management to the students and the program is essential for the program success.
  - The incorporation of guest speakers from within and outside the university gives students a rich exposure to the field and the opportunity to specialize.

- **Areas for Enhancement or Improvement**
  - Re-evaluation and review of the program's vision and learning outcomes in order to articulate a clear description of the learning outcomes and the course content.
    - Engagement of senior eHealth specific leadership to both streamline and promote the program. The original leaders that created the program were internationally known, but they are no longer formally associated with the program. Therefore, the program must engage and support the next generation of eHealth leader(s) in order to ensure the continued relevance and success of the program.
    - Re-evaluation of the commitment of the partner faculties. Clear commitment of participating faculties in the continued evolution of the program content and structure is essential to keep it relevant to the field and its partner faculties. This shared vision of the program should be clear to the students and instructors and guide the relationship of the participating faculties.
    - Engagement of teaching resources who are academically trained and invested in eHealth as their area of specialization. The program lacks instructors who are experienced in the field of eHealth.
    - The thesis option is underutilized by the students and is nominally supported by the program. The program must evaluate whether a thesis option is viable and suited for this program, as currently the program is heavily reliant on the internship option which is quite successful and the students' preferred option.
    - Concomitant deployment of enhanced support (moral, resources) for the management of the program. Recognizing the strain it puts to manage an interdisciplinary program in terms of allocating dedicated time and workload relief to support program management.
    - In order to ensure the future relevance of this program a more systematic and partnered approach for engaging students and alumni in the governance of the program is essential.

Implementation Plan

Please outline the recommendations made by reviewers and indicate how you plan to address the recommendations in the chart below.

Please note that the reviewers provided both key recommendations in the Executive Summary and broader recommendations in the detailed sections of the report. Below, we follow the same pattern, addressing the key points in the Executive Summary area with reference to the detailed points below shown in brackets. Please note that* ***the Executive Summary Recommendations section does not touch on all of the topics in the Detailed Recommendations section that follows*.***

Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation
Executive Summary Recommendations			
A. Support for a Design-focused Capstone project should be considered as an alternative, complement or replacement for the Research paper.	- The program team supports the idea of replacing the scholarly paper with a capstone project, in principle. We will explore the feasibility of this recommendation in terms of timeline and resource requirements (see 4.1). - If the scholarly paper remains a component of the program, we will develop revised guidelines and communications to encourage more variety in the topics and approaches taken by students (see 4.3, 4.4, 4.5, 4.6).	eHealth Program Team	Begin exploration in 2021, propose changes in 2021/2022 academic year as needed, for implementation in 2022/2023

B. If thesis option is continued to be supported, a de- emphasis on industry internship and more focus on directed studies and research supervision should be considered.	- The program team supports the elimination of the thesis stream of the program to focus resources and attention on the course-based stream. We will explore the feasibility of this recommendation with key stakeholder groups (see 4.2). - If the thesis stream does remain, we agree that the nature of the internship should be prescribed for those students so that it is research focused (see 4.2).	eHealth Program Team	Begin exploration in 2021, propose changes in 2021/2022 academic year as needed, for implementation in 2022/2023

Recommendation	**Proposed Follow-Up**	**Responsibility for Leading Follow-Up**	**Timeline for Addressing Recommendation**
C. The program must establish improved collaboration/ connection with relevant eHealth researchers and health-related entrepreneurship programs (health technology) at the university.	- Proactively and systematically engage eHealth researchers across campus in the activities of the program (see 1.1, 5.4, 5.5)	eHealth Program Team	Process design early 2021 for implementation in 2021/2022 academic year activities
D. There must be at a minimum one leading eHealth expert researcher/ academic associated with the instructor body to provide the necessary discipline specific expertise required to articulate the program's vision, mission and delivery of the right content.	- The composition of the program team is beyond the scope of influence of the program team. While we understand the concern raised, the process in place is for the Program Director to be selected by a committee and Program Leads assigned by the respective faculties. As such, the members of our team are a result of the applicant pool of interest for the director role, and the resources available within each faculty (see 5.1). - Efforts to ensure that our vision and mission remain relevant and aligned with curriculum are described in section 3 below.	Senior leadership of the contributing faculties eHealth Program Team	Ongoing, consider the needs of the eHealth program in hiring decisions and service assignments See section 3

Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation
E. The program leadership must be provided with teaching release in order to create space for the effective management of the program, and to be able to develop and enhance their understanding of eHealth as a discipline.	- Addressing this recommendation is complicated given the involvement of three faculties in the management of the program. In practice, each faculty may decide the requirements of their members, and each faculty approaches this uniquely in the context of this program. In practice, the program team finds that we are quite resource constrained and spend the time that we have available addressing operational rather than strategic concerns. While we are able to utilize our budget to fund conference and training activities for the team, time is often the key constraint. It would be beneficial to the program if the coordinators and director each had more time to dedicate to the program and their eHealth development (see 5.2).	Senior leadership of the contributing faculties	Ongoing, consider the needs of the eHealth program in resource allocation decisions
F. The core teaching complement should either have or be given opportunities to develop interest and expertise in the field of eHealth as currently most of the instructors do not have an eHealth background which is affecting the learning outcomes and student appreciation of the topics.	- Three of the four core courses are taught by members of the eHealth program team who are provided with opportunities for development as mentioned above in E. - The eHealth elective courses all have instructors who are engaged in eHealth research and practice.	(see E)	

Recommendation	Proposed Follow-Up	Responsibility for Leading Follow-Up	Timeline for Addressing Recommendation

G. There should be continuity and stability in terms of instructor assignment to the program, such that instructors should be assigned to teach a course for multiple years to allow them to develop their own expertise in eHealth and to prepare high-impact content material for the course.	- Addressing this recommendation is complicated given the involvement of three faculties in the management of the program. Each faculty contributes courses the program and has its own internal mechanisms for the assignment of instructors. - In general, there has been consistency of instruction for most courses. We now have teaching-track instructors teaching the core Engineering and Business courses, where these were formerly CLA instructors. It would be beneficial to move toward the participation of more permanent faculty members for continuity and development of eHealth courses (see 6.1).	Senior leadership of the contributing faculties	Ongoing, consider the needs of the eHealth program in hiring decisions and service assignments

Detailed Recommendations			
1. Program			
1.1 Research in current and emerging eHealth topics is currently nominal, but it can be improved by engaging faculty members beyond the teaching core of the program.	While it is true that most of the eHealth Program Team have teaching-intensive appointments and nominal eHealth research, a great deal of eHealth related research is being done in pockets throughout the university. The Program Team agrees that we should more proactively and systematically engage these researchers in the activities of the program. We will add to our annual processes more efforts for systematic outreach within each of the participating faculties and systematic tracking of faculty member interest for engagement (curriculum, admissions, supervision, guest speaking).	eHealth Program Team	Process design early 2021 for implementation in 2021/2022 academic year activities
1.2 The interdisciplinary culture must be further enhanced by bringing together students from all three backgrounds (health, business and engineering) to do joint projects/assignment across the courses.	The instructors of the core courses will continue to encourage students to create diverse teams for course assignments and projects. Should we move toward a capstone project in place of a scholarly paper (discussed further below), we will ensure that those teams are composed of diverse skill sets as well.	eHealth Program Team (which contains core instructors)	Jan 2021- add to list of discussion topics for core course planning (to take place May 2021)
2. Admission Requirements			

2.1 The student cohort is predominantly from health and business backgrounds, with a nominal number of students entering the program with a computer science/engineering background. This is affecting the participation and value proposition of the engineering faculty. The admissions should be balanced between the three disciplines to have a truly interdisciplinary student cohort.	While attempts have been made over the years to balance out the backgrounds of the student cohort, efforts going forward will be more systematic and targeted. For the current admissions cycle, we have added a question to the application to determine how applicants became aware of the program. We will use this information, in combination with additional research, to target our recruitment efforts to venues of relevance to technically oriented students. Part of the challenge seems to be that students with strong technical background gravitate towards more technical masters programs, such as biomedical engineering, rather than an interdisciplinary program like eHealth.	eHealth Program Team & Program Admin	Analyze admissions data from the current cycle in May 2021, plan for next cycle in Jun-Aug 2021, implement plan in fall 2021.
2.2 The academic advisors assigned to the students should better match the backgrounds of students (e.g. assign health students to a health leader, business students to a business leader, computer science/ engineering students to engineering leader).	In the earlier years of the program, students were matched to academic advisers with the same background upon entry to the program. This was problematic for two reasons: 1) the distribution of advising duties across the three faculty leads was uneven; 2) students are encouraged and often choose to explore a discipline other than their background once in the program and, as a result, often requested a change in adviser (creating administrative work). As a result of these challenges, we decided to revise the process so that students are now evenly and randomly assigned to an academic adviser upon entry, and encouraged to reach out to other program leads with targeted questions should the need arise. We will be sure to emphasize this process during orientation going forward.	Program Admin	Jan 2021- add to Orientation 2021 materials

3. Curriculum			
3.1 The curriculum needs a refresh to include current topics and to modularize the content. The current curriculum (including both core and electives) does not properly cover the breadth of eHealth, as such many important topics are not covered in the program.	In preparation for the IQAP review, the Program Team reviewed the curriculum of other similar programs as well as industry association training offerings. This became the basis for our learning objectives, which we believe are well addressed by our core and elective courses. As such, we are uncertain about which eHealth topics the reviewers find lack coverage in the program. It is possible that we made an error in the scheduling of the reviewer meeting with program instructors. Since the instructors of the core courses (except stats) are also members of the program team, the instructors meeting was only with instructors of elective courses. This may have impacted the interpretation of the curriculum by the reviewers. We would like to follow up with the reviewers for clarification if that is possible. On an ongoing basis, the program will systematically scan the composition of similar programs and industry association training to keep curriculum relevant. We will also ensure that advisory board input is gathered on a regular basis as another perspective.	eHealth Program Team & Program Admin	Jan 2021- reach out to reviewers for clarification Summer 2021- plan research and advisory board activities 2021/2022 academic year- conduct research, develop recommendations for any changes, pursue necessary university approvals for implementation in 2022/2023 academic year
3.2 The core courses require a re-focus to better align with current eHealth theories, models and practices. The core courses should have a modular structure to accommodate the different topics within a course.	As above in 3.1, we are uncertain about which theories, models, and practices are of concern as well as what exactly is meant by “modular structure.” We would like to follow-up with the reviewers for clarification if that is possible.	eHealth Program Team	Jan 2021- reach out to reviewers for clarification Summer 2021- investigate further based on reviewer input (in line with 3.1 above)

3.3 The core courses should have an interdisciplinary focus that brings students from different backgrounds and a strong grounding in the core essentials of eHealth and how to apply them to eHealth. Tutorials, mentoring, supplementary courses should be identified so that students from different backgrounds can compensate or address any deficiencies they may have such that a shared minimum competency for the cohort can be achieved.	As discussed in 1.2 above, instructors will continue to support interdisciplinary team composition in eHealth courses. Further, we will develop roadmaps with suggested courses aligned toward particular career goals that students often have (project management, data analytics, eHealth research, etc.). This should help to facilitate course selection and the attainment of skills aligned with career goals. The core courses across the three faculties are designed to create a shared minimum competency across the disciplines, while the flexibility of the program allows for students to pursue their own career goals. We believe that this interdisciplinary foundation combined with flexibility in focus is a strength of the program.	eHealth Program Team	Summer 2021- develop career aligned course roadmaps for distribution to incoming cohort in 2021/2022
3.4 The selection of electives should be streamlined in terms of specializations where students can leverage their strengths (health, business, computer science/engineering) for more advanced work in eHealth.	See 3.3 above.		
3.5 The balance between core and electives needs a re-think since the core courses do not cover all relevant eHealth topics and the electives are insufficiently related to eHealth and do not provide topical eHealth knowledge.	As above in 3.1, we are uncertain about which topics are of concern. We would like to follow up with the reviewers for clarification if that is possible.	eHealth Program Team	Jan 2021- reach out to reviewers for clarification Summer 2021- investigate further based on reviewer input (in line with 3.1 above)

4. Teaching and Assessment

4.1 Support for a Design-focused Capstone project should be considered as an alternative, complement or replacement for the Research paper. Non-thesis students could be introduced to the idea of a “capstone-like” project early in their studies and exposed to ideas for projects (former students, entrepreneurship hubs on campus, researchers, and companies with interested projects).	The program team supports the idea of replacing the individual scholarly paper with a group capstone project, in principle. This change would likely be well received by students, and the exercise would be more meaningful. More detailed thought and planning would be needed to determine the resource needs, especially if this were to involve community engagement on an ongoing basis. We would also need to explore how this could fit into the timeline of the program since students are with us for 8 months, on internship for 8 months, and then back for only one term.	eHealth Program Team	Summer 2021- working session to explore the possibility of a capstone project replacing the scholarly paper 2021/2022 academic year- conduct research, develop recommendations for any changes, pursue necessary university approvals for implementation in 2022/2023 academic year
4.2 If thesis option is continued to be supported, a de-emphasis on industry internship and more focus on directed studies and research supervision should be considered.	The program team supports the elimination of the thesis stream of the program to focus resources and attention on the course-based stream. The program attracts few thesis students and the support needed by those students is significantly higher than for course-based students. Further, we have had a number of instances where students join through the thesis program and then request to switch to course-based. We will explore the idea of removing the thesis stream with key stakeholder groups. If the thesis stream does remain, we agree that the nature of the internship should be prescribed for those students so that it is research focused.	eHealth Program Team	Summer 2021- working session to explore the possibility of eliminating the thesis stream 2021/2022 academic year- conduct research, develop recommendations for any changes, pursue necessary university approvals for implementation in 2022/2023 academic year

4.3 If the research paper is to be continued, then its focus should be shifted from a literature review to deeper investigations in useful and relevant eHealth topics. Students can be encouraged to pursue small-scale research-based exercise that can be reported in the research paper.	The program committee supports the replacement of the scholarly paper with a capstone project, as discussed above in 4.1. If it is determined that this is not feasible, we agree that the scholarly paper exercise could be enhanced. While the current guidelines provided to students do provide for different types of papers, students gravitate toward a literature review. Description and communication could be revised to encourage more diversity in the nature of the papers.	eHealth Program Team	Pending result of 4.1 above, revise scholarly paper documentation and communication if needed during same timeframe as 4.1
4.4 The research paper requirement can be modified to team-based development projects as this will provide a practical hands-on experience, and also help to engage engineering faculty members.	See 4.1 above		
4.5 The process of finding a supervisor and readers for the research paper needs to be streamlined and simplified—currently students face difficulties in both finding and engaging supervisors.	The program committee supports the replacement of the scholarly paper with a capstone project, as discussed above in 4.1. If it is determined that this is not feasible, we agree that the supervision of scholarly papers should be streamlined. We will suggest to key stakeholders that the number of readers could be reduced from two to one without having a significant impact on the quality of the papers produced.	eHealth Program Team	Pending result of 4.1 above, revise scholarly paper process if needed during same timeframe as 4.1

4.6 The load of research paper supervision should be evenly distributed across the teaching faculty associated with the program. Furthermore, to ensure supervision quality and timely feedback there should be an upper limit to the number of research papers one faculty member can supervise.	The preliminary steps toward the scholarly paper are supported by academic advisers (faculty leads) while students are on internship through an AvenueToLearn online course. Since students are evenly distributed across the advisers, the workload is also evenly distributed. Once students have developed their proposal with their academic adviser, they make efforts to secure a first reader whose expertise aligns with their topic of interest. The requirement is that this first reader be a faculty member at McMaster, not necessarily within the teaching faculty of the eHealth program. Perhaps this was not clear during the reviewers' visit and meetings. In general, this wide net for finding supervision should result in limited number of papers per supervisor, which has been the case more recently. To address the issue of timely feedback, we do have guidelines in development for each of the stakeholders in the scholarly paper process to enhance the understanding and efficiency of the process for all.	eHealth Program Team	Early 2021- finalize scholarly paper guidelines to share with students going on internship in summer 2021 (for Apr 2021 "transition to the workplace" seminar)
4.7 The program management, through consultation with the teaching faculty, should prepare a list of potential research paper topics with assigned supervisors to assist students determining their research paper topic and supervisor.	The intention of the current scholarly paper process is to provide students with the opportunity to explore a topic of interest in a self-guided research exercise. Students are encouraged to—and often choose topics that—extend the knowledge gained during their internship experience. While we appreciate efficiencies related to the recommendation, we believe that the existing approach provides a more meaningful learning experience.		

5. Resources to Meet Program Requirements			
5.1 There must be a leading eHealth expert researcher/ academic articulating the program's vision and mission. This is important as currently the program lacks relevant leadership.	The composition of the program team is beyond the scope of influence of the program team. While we understand the concern raised, the process in place is for the Program Director to be selected by a committee and Program Leads assigned by the respective faculties. As such, the members of our team are a result of the applicant pool of interest for the director role, and the resources available within each faculty. Efforts to ensure that our vision and mission remain relevant and aligned with curriculum are described above in section 3.	eHealth Program Team Senior leadership of the contributing faculties	See section 3 Ongoing, consider the needs of the eHealth program in hiring decisions and service assignments
5.2 The program management must be given dedicated time to manage the program, and also to develop their understanding of eHealth as a discipline.	Addressing this recommendation is complicated given the involvement of three faculties in the management of the program. In practice, each faculty may decide the requirements of their members, and each faculty approaches this uniquely in the context of this program. In practice, the program team finds that we are quite resource constrained and spend the time that we have available addressing operational rather than strategic concerns. While we are able to utilize our budget to fund conference and training activities for the team, time is often the key constraint. It would be beneficial to the program if the coordinators and director each had more time to dedicate to the program and their eHealth development.	Senior leadership of the contributing faculties	Ongoing, consider the needs of the eHealth program in resource allocation decisions

5.3 Teaching stream professors must have sufficient exposure (conferences, training), faculty support (researchers, faculty leaders), and time for mentoring students, curriculum development, etc.	Three of the four eHealth Program Team members have teaching-intensive appointments. As such, the response to 5.2 applies here also.		
5.4 There must be an annual meeting of eHealth instructors, vice-deans from each faculty and leading faculty (research / entrepreneurship) to review program gaps and decide upon curriculum updates and assignment of suitable teaching resources.	We agree that there should be a more structured approach to stakeholder engagement. We would like to ensure that annual stakeholder engagement activities take place: - the advisory board needs to be resurrected and cultivated proactively - an annual update meeting with consistent metrics provided year over year should be set with the Associate Deans of the program - although alumni have traditionally participated in the advisory board, an annual alumni event would also be useful	eHealth Program Team	Process design early 2021 for implementation in 2021/2022 academic year activities
5.5 There must be improved collaboration/connection with relevant researchers and entrepreneurship programs (health technology) at the university.	We agree with this recommendation and have addressed the researchers' component above in 1.1. In addition, coordination and collaboration among the health technology entities at the university would be useful. We will pursue a community of practice model to create and maintain connection to the various relevant bodies on campus.	eHealth Program Team	Process design early 2021 for implementation in 2021/2022 academic year activities

5.6 The rather long list of electives can be strategically reduced and stratified to minimize teaching resources whilst providing focused themes for students to pursue.	In 3.3 above, we address the creation of goal-oriented course roadmaps and a streamlined list of elective topics. It is possible that there was a lack of clarity around the provision of elective courses to eHealth students. The eHealth program offers only a few elective courses; the others on the list are offered through the participating faculties and, thus, do not impact the program's teaching resources.		
6. Quality Indicators			
6.1 The program should involve more tenure-track faculty and reduce its dependency on CLAs which by virtue of their temporary contract cannot provide the long term commitment required to maintain the program.	While the immediate succession issues identified in the previous review have been addressed, it is true that the program team is made up entirely of non-permanent faculty at this point in time. As discussed above in 5.1, the members of our team are a result of the applicant pool of interest for the director role, and the resources available within each faculty for lead roles.	Senior leadership of the contributing faculties	Ongoing, consider the needs of the eHealth program in hiring decisions and service assignments
6.2 The program should provide opportunities to instructors to develop eHealth knowledge and even participate in eHealth research activities.	See 5.2 above		
8. System of Governance			
8.1 The governance of the program should consider engaging students and alumni in a more systematic manner in the governance and management of the program (perhaps through	The engagement of alumni is addressed above in 5.4. Over the past year, student representatives from the new student association have attended several of our team meetings. We will continue to encourage them to send a representative.	eHealth Program Team	Ongoing

the newly-created student association).			

8.2 There must be an annual meeting of eHealth instructors, Vice-deans from each faculty and leading faculty (research / entrepreneurship) to review program gaps and curriculum updates. It should include student, alumni, and industry representatives and other relevant community leaders and stakeholders.	See 5.4 above		
8.3 The program should revisit its mission and mandate with an open discussion about the role and commitment from the partner faculties. It is worth asking the question whether this program should be shared by 3 faculties or with 2 faculties who are more interested and invested in eHealth.	Since the time of the last review (2013) there have been significant steps to even out the contribution by the three faculties. Relevant metrics to this concern should be discussed annually in the updated provided to the Associate Deans (see 5.4). If the scholarly paper is replaced with a capstone project as described above, this may create new ways for faculty members from the three faculties to engage.	eHealth Program Team	Annual update as discussed in 5.4 Capstone project as discussed in 4.3

8.4 Each partner faculty should assess and articulate their ability to engage their tenure-track faculty to contribute to the program.	The eHealth program is pleased to provide Senior Leadership with any data needed to support this assessment. We have observed over time that faculty in FHS are often the most willing to engage. We wonder if this may be at least in part because FHS has a mechanism (MacFacts) whereby faculty members are recognized for their various contributions. Perhaps a similar mechanism can be explored in the other faculties.	Senior leadership of the contributing faculties	At their discretion
9. Academic Services			
9.1 The program management could offer career counselling to the students, as the students are coming from diverse backgrounds it is important that they can foresee a suitable career path.	Currently the CDRM does provide individual career coaching sessions with all students during the internship preparation process. Perhaps this was not articulated in the self-study or during the visit.		
9.2 The program management could benefit by establishing an advisory committee comprising eHealth professionals, alumni, industry, and eHealth academics.	See 5.4 above		
9.3 The program management should include tenured faculty members to ensure continuity. Currently, the program management largely comprises of non-permanent faculty members.	See 6.1 above		

9.4 The program management should include individuals who are academically invested in eHealth, and preferably senior faculty members.	See 5.1 above		
9.5 The program management should be consulted regarding teaching assignment decisions.	While the program team would appreciate this consultation, we recognize the process and resource constraints in each of the participating faculties.		

Faculty Response

The Faculties of Business, Engineering and Health Sciences are grateful to the reviewers for the scope and depth of their report in assessing the quality of the eHealth program. They had received and reviewed the recommendations of the program in regard to the report's findings and have every confidence that the program leadership will address the recommendations.

They note that the reviewers identified several strengths of the program including the excellence of the new and graduating students, the dedication of teaching staff and good quality of instruction, and the importance of the internship experience for student learning.
Regarding suggested changes to the curriculum, the Faculties are committed to working with the program leadership to make appropriate changes. For example, they encourage the program to consider introducing a design-focused capstone project and agree that it may be an excellent innovation in the program. On the other hand, they are concerned about the program's suggestion to eliminate the thesis option, and will support a careful review of this option and its possible impact on eHealth research at McMaster. They do agree with the reviewers' recommendation to de-emphasize the internship for students under that option.

They were particularly struck by the reviewers' suggestion that the program is currently disadvantaged by low involvement of eHealth researchers and the absence of a "leading eHealth expert" at the institution. They will encourage the program to evaluate this concern and to consider whether the program is sufficiently engaged with eHealth researchers throughout the campus and off-campus members of the industry. They agree with the reviewers' broader observation that it is timely for the three faculties to reconsider their commitments to the program and to eHealth research and practice. This conversation among the faculty deans is underway. They note that the incoming Dean of the Faculty of Business is a leading eHealth researcher.

They agree that the Director should receive teaching relief and have confirmed that she does but do not see the same need for the Program Leads; it would be inconsistent with the operations of other programs to give teaching relief to the entire leadership team. In the Faculty of Health Sciences, discussions are underway to ensure the stability of the faculty position of the FHS Lead. They also agree that having some stability in terms of instructor assignments is important. They note that with several recent new faculty additions to the program, they expect that the program will have that stability going forward.

A point that resonated strongly with them in the report was the need for the leadership to re-connect with eHealth experts now that the original architects of the program have retired. Per the MOU signed by the three Faculties in 2018, a committee was to be established, "*MSc eHealth Program External Advisory Committee*" in order to provide this very needed connection with its industry. Much of the recommendations by the program would be preferably enacted upon with the guidance of this advisory committee. This committee may similarly prove helpful in connecting the program with suitable

instructors for the courses which seem to be of concern to the reviewers. As a result, they will be trying to strongly motivate and aid the program in reconvening this advisory committee as soon as possible.

Overall, they are satisfied by the responses of the program to reviewers' concerns and look forward to receiving more details about their proposed improvements as time progresses.