



FOR INFORMATION

PUBLIC

OPEN SESSION

TO: Academic Board

SPONSOR: Sioban Nelson, Vice-Provost, Academic Programs
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PRESENTER: Elizabeth Smyth, Chair, Committee on Academic Policy and Programs

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DATE: March 21 for April 20, 2017

AGENDA ITEM: 4b

ITEM IDENTIFICATION:

Semi-Annual Report on the Reviews of Academic Units and Programs,
November – December, 2016

JURISDICTIONAL INFORMATION:

Under the *Policy for Approval and Review of Academic Programs and Units*, the compendium of summaries of review reports of academic units and programs is received by the Academic Board. The same documentation is provided for information to the Executive Committee and the Governing Council.

GOVERNANCE PATH:

1. Committee on Academic Policy and Programs [for information] (March 29, 2017)
2. Agenda Committee of the Academic Board [for information] (April 11, 2017)
- 3. Academic Board [for information] (April 20, 2017)**
4. Executive Committee of the Governing Council [for information] (May 4, 2017)
5. Governing Council [for information] (May 18, 2017)

PREVIOUS ACTION TAKEN:

Governing Council approved the *Policy for Approval and Review of Academic Programs and Units* in 2010. The *Policy* outlines University-wide principles for the approval of proposed new academic programs and review of existing programs and units. Its purpose is to align the University's quality assurance processes with the Province's Quality Assurance Framework through establishing the authority of the University of Toronto's Quality Assurance Process (UTQAP).

The Semi-Annual Report on the Reviews of Academic Units and Programs (April – September 2016) was previously submitted to the Academic Board on November 24, 2016.

HIGHLIGHTS:

External reviews of academic programs and units are important mechanisms of accountability for the University and a vital part of the academic planning process. Academic reviews are critical to ensuring the quality of our programs through vigorous and consistent processes that assess the quality of new and existing programs and units against our international peers.

Summaries of the external review reports and the complete decanal responses for three external reviews of units and/or academic programs are being submitted to AP&P for information and discussion. Of these, two were commissioned by the Vice-President and Provost and one was commissioned by the Dean. The signed administrative responses from each Dean highlight action plans in response to reviewer recommendations.

Overall, the themes raised in these reviews echoed those in previous compendia: the excellent quality and comprehensiveness of our programs, and the research expertise and outstanding scholarly outputs of faculty.

As always, the reviews noted areas for development. These included ensuring support for graduate student time to completion, and strengthening coordination across areas to support academic programs.

Additional reviews of programs are conducted by organizations external to the University. Reviews of academic programs by external bodies form part of collegial self-regulatory systems to ensure that mutually agreed-upon threshold standards of quality are maintained in new and existing programs. A summary listing of these reviews are presented in the Appendix.

FINANCIAL IMPLICATIONS:

Not applicable.

RECOMMENDATION:

This item is for information and feedback.

DOCUMENTATION PROVIDED:

Compendium of Reviews of Academic Programs and Units, November, 2016 – December, 2016



UNIVERSITY OF
TORONTO

OFFICE OF THE VICE-PROVOST,
ACADEMIC PROGRAMS

Reviews of Academic Programs and Units

November – December 2016

**Report to the Committee on Academic Policy and Programs
March 29, 2017**

Reviews of Academic Programs and Units

November – December 2016

Report to the Committee on Academic Policy and Programs

March 29, 2017

1 Provostial Reviews

Dalla Lana School of Public Health and its programs:

- Master of Public Health, M.P.H., Public Health Sciences
 - Nutrition and Dietetics
 - Epidemiology
 - Family and Community Medicine
 - Occupational and Environmental Health
 - Social and Behavioural Health Sciences
- Master of Health Science, M.H.Sc., Bioethics
- Master of Science in Community Health, M.Sc.C.H.
 - Addictions and Mental Health
 - Family and Community Medicine
 - Health Practitioner Teacher Education
 - Occupational Health Care
 - Wound Prevention and Care
- Diploma in Community Health
- Master of Science, M.Sc., Public Health Sciences
 - Biostatistics
- Doctor of Philosophy, Ph.D., Public Health Sciences
 - Biostatistics
 - Epidemiology
 - Occupational and Environmental Health
 - Social and Behavioural Health Sciences
- Master of Health Science, M.H.Sc., Health Administration
- Master of Health Informatics, M.H.I., Health Informatics
- Master of Science, M.Sc., Health Policy, Management and Evaluation
 - Clinical Epidemiology and Health Care Research
 - Health Services Research
 - Quality Improvement and Patient Safety
 - System Leadership and Innovation
- Doctor of Philosophy, Ph.D., Health Policy, Management and Evaluation
 - Clinical Epidemiology and Health Care Research

- Health Services Research
- Combined Degree Program in Health Administration, M.H.Sc. / Master of Social Work, M.S.W.

Faculty of Dentistry and its programs:

- Doctor of Dental Surgery, D.D.S.
- Master of Science in Dentistry, M.Sc.
- Doctor of Philosophy in Dentistry, Ph.D.

2 Decanal Reviews

Faculty of Medicine

- Department of Medical Biophysics and its programs
 - Graduate: MSc, PhD

Appendix I: Externally-commissioned reviews of academic programs, April 2016 – October 2016

UTQAP Review Summary

Programs(s) Reviewed:	<p>Master of Public Health, M.P.H., Public Health Sciences</p> <ul style="list-style-type: none"> • Nutrition and Dietetics • Epidemiology • Family and Community Medicine • Occupational and Environmental Health • Social and Behavioural Health Sciences <p>Master of Health Science, M.H.Sc., Bioethics</p> <p>Master of Science in Community Health, M.Sc.C.H.</p> <ul style="list-style-type: none"> • Addictions and Mental Health • Family and Community Medicine • Health Practitioner Teacher Education • Occupational Health Care • Wound Prevention and Care <p>Diploma in Community Health</p> <p>Master of Science, M.Sc., Public Health Sciences</p> <ul style="list-style-type: none"> • Biostatistics <p>Doctor of Philosophy, Ph.D., Public Health Sciences</p> <ul style="list-style-type: none"> • Biostatistics • Epidemiology • Occupational and Environmental Health • Social and Behavioural Health Sciences <p>Master of Health Science, M.H.Sc., Health Administration</p> <p>Master of Health Informatics, M.H.I., Health Informatics</p> <p>Master of Science, M.Sc., Health Policy, Management and Evaluation</p> <ul style="list-style-type: none"> • Clinical Epidemiology and Health Care Research • Health Services Research • Quality Improvement and Patient Safety • System Leadership and Innovation <p>Doctor of Philosophy, Ph.D., Health Policy, Management and Evaluation</p> <ul style="list-style-type: none"> • Clinical Epidemiology and Health Care Research • Health Services Research <p>Combined Degree Program in Health Administration, M.H.Sc. / Master of Social Work, M.S.W.</p>
Division/Unit Reviewed	Dalla Lana School of Public Health and its programs
Commissioning Officer:	Vice-President and Provost
Reviewers (Name, Affiliation):	<ol style="list-style-type: none"> 1. James W. Curran, Dean, Rollins School of Public Health, Emory University 2. Terence M. Nolan, Redmond Barry Distinguished Professor and Head, Melbourne School of Population and Global Health, University of Melbourne 3. Brian Postl, Dean, College of Medicine Dean, Faculty of Health Sciences and Vice-Provost, Health Sciences, University of Manitoba
Date of Review Visit:	November 7-9, 2016

Previous Reviews

Note: Two Previous Reviews are included, reflecting the previous unit affiliations of the programs included in the current provostial review.

- DLSPH was an EDU:A in the Faculty of Medicine prior to becoming a Faculty on July 1, 2013
- IHPME was a department and then (October 2011) an EDU:A in the Faculty of Medicine prior to transferring from the Faculty of Medicine to DLSPH on July 1, 2014

Summary of Findings and Recommendations:

1. DLSPH Review (pre-UTQAP review)

Date: February - March 2011

Note: The summary below reflects the fact that this previous review, in addition to addressing the quality of DLSPH programs, was intended to assess the readiness of these programs for Council on Education for Public Health (CEPH) accreditation. DLSPH ultimately elected not to seek CEPH accreditation.

Graduate Programs

Programs reviewed: Public Health, MPH, MSc, PhD; Community Health, MScCH; Diploma in Community Health

The reviewers observed the following **strengths**:

- An extensive, strong and diverse group of faculty who are committed to providing student mentorship
- Excellent relationships with external research, service and policy organizations, and with cognate units in the University
- Excellent student body
- PhD program: The reviewers regard it as excellent

The reviewers made the following **recommendations**:

- MPH: That the competencies required for the successful completion of the program be more explicitly specified and tied to various aspects of curriculum, learning activities, and evaluation of students
- Need for a core curriculum that spans the various specialty areas in the MPH
- MScCH: The School review the MScCH curriculum with respect to basic public health knowledge to ensure that it meets with CEPH standards.

2. IHPME UTQAP Review (prior to transfer):

Date: January 2012

Graduate Programs

Programs reviewed: Health Policy, Management and Evaluation, MSc, PhD; Health Administration, MHSc; Master of Health Informatics, MHI

The reviewers observed the following **strengths**:

- Very high quality programs
- Rare 8-year accreditation period of the MHSc in Health Administration
- High quality research activities and strong publication rankings
- Excellent relationships across the University and with alumni
- High morale within a department of outstanding national and international stature

The reviewers made the following **recommendations**:

- Streamline offerings
- The need for more advanced courses
- The availability of new information technologies
- Clarity regarding comprehensive exams, identifying student needs, and planning for faculty renewal.

Current Review: Documentation and Consultation

Documentation Provided to Reviewers

Terms of Reference; Self-Study and appendices, including previous external review reports, course descriptions, faculty members' CVs, Library Report, DLSPH Towards 2021 and Beyond, Strategic Plan 2016-2021, Milestones and Indicators and other documents; Towards 2030 Framework; Total funding figures by Principal Investigator, 2011-2015; and PHS & IHPME PhD Funding Policies

Consultation Process

The reviewers met with the Vice-President and Provost; Vice-Provost, Academic Programs; the Dean; Associate Deans and EDU-A Director; Program Directors PhD and Master's for both PHS and IHPME; PHS Students (PhD and Masters); Faculty from the DLSPH Executive Committee (Associate Dean's, Division Heads and IHPME Program

Leaders, EDU Directors and School Council Chairs); Tenured Faculty; Pre-tenured Faculty (all faculty with non-continuing appointments); Vice-President Research; Cognate Deans; Dean's Advisory Board; Status-Only and Adjunct Faculty Members; Public Health Alumni Association President and, President, IHPME's Society of Graduates and a few alumni board members; IHPME Students (PhD and Masters); Vice-Dean, Programs, School of Graduate Studies; Chief Administrative Officer, IHPME's Business Manager, Director of Communications, and the Director of Advancement; Administrative Staff (open meeting PHS and IHPME); Research Staff and Post-Doctoral Fellows (open meeting PHS and IHPME); and, Dalla Lana School of Public Health Decanal Search Committee.

Current Review: Findings and Recommendations

1. Graduate Programs

Programs reviewed: See list on Page One

The reviewers observed the following **strengths**:

- Overall quality
 - The newly formed DLSPH hosts an amalgamation of mostly excellent programs; “world class” programs in health science research and administration
 - MHSc in health administration successfully reaccredited
 - The Joint Centre for Bioethics is a “renowned national and global resource”
- Objectives
 - All degree programs have clear objectives and are consistent with the mission and values of the University of Toronto
- Admission requirements
 - Requirements of all programs seem reasonable
- Curriculum and program delivery
 - MPH and MHSc programs include “thoughtful competencies” with attention to changing needs and to accreditation/certification requirements
 - Master's programs in PHS and the IHPME continue to innovate and respond positively to the 2012 curriculum review and the MHSC accreditation report
 - Master's in Health Informatics is innovative; executive option is responsive to market needs
 - PhD programs have well-defined competency exam requirements and research proposal and dissertation defences
- Quality indicators

- Applications to most master's and PhD programs stable and robust or increasing through 2014-15
- Very strong acceptance and registration rates for nearly all programs
- Excellent mean time to degree for master's programs
- Consistently high student satisfaction
- PhD programs "uniformly strong":
 - Sufficient applications, acceptances, registration rates
 - Excellent employment data and are "consistent with the best schools of public health internationally"
- MHI: strong application growth and outstanding student evaluations
- Enrolment
 - Mostly full-time students in master's programs
- Students
 - Impressive "scale and scope of research activities and opportunities for graduate students"; students provided "overwhelmingly positive" feedback in this area
- Student funding
 - Student financial aid policy is exemplary and possibly the envy of other universities
 - Costs of attendance and funding for master's students is relatively low compared to American schools
- Program development
 - Combined degree with social work looks interesting

The reviewers identified the following **areas of concern**:

- Overall quality
 - Several barriers to overcome before realizing advantages of combining units and degree offerings, including substantial variation across administration, funding and enrolment capacities for programs and classes
 - MHS in Bioethics: quite small; not coordinated with other programs
- Admissions requirements
 - Considerable variation in admissions requirements and preferences between programs may confuse or deter prospective candidates
 - Some programs "unnecessarily" restricted to practicing clinicians or health administrators
 - MHS in Bioethics program: unnecessary health science degree admission requirement
- Enrolment
 - MHS Bioethics and the MHS in Community Health Programs seem to be undersubscribed
- Quality indicators
 - Lack of close collaboration between programs (e.g., sharing of applicants)

- Increased competition for applicants
- Master's in Bioethics: fewer applicants and higher acceptance rate
- MHSch in Community Health: higher acceptance rates
- PhD: 6 year time to degree
- Student funding
 - University needs to assist in identifying ways to increase numbers of high-achieving international students
 - PhD stipends are somewhat lower than the NIH norm for public health and biomedical sciences in the US
 - TA assignments not uniformly available
- Support
 - Some master's students noted difficulties accessing faculty, particularly status and adjunct instructors
 - Limitations on availability of paid practicum opportunities
 - Little indication that students in various programs get together to share and benefit from the DLSPH doctoral experiences

The reviewers made the following **recommendations**:

- Overall quality
 - Reviewers recommended that DLSPH maintain the qualities of its excellent programs during period of faculty consolidation
 - MHSch in Bioethics: consider ways to increase use of valuable resource and expand enrolment (e.g., review need for two years' matriculation; consider combined degrees and certificates with other programs)
 - A strategic plan for masters' programs should explore opportunities for economies of scale in admissions, administration, communications, avoidance of duplication, expanding class offerings, etc. across all programs outside current siloes. A careful look at financial incentives and barriers should be included in the plan
- Admission requirements
 - Consider more closely standardized admission requirements
- Enrolment
 - MHSch Bioethics and the MHSch in Community Health Programs have assets which could be more broadly incorporated or combined with other options
 - Consider expansions to the Masters level program with a particular view to international students
- Quality Indicators
 - Move towards modal 4-year (vs 6-year) time to degree completion to be in line with international practice and to provide a more efficient financial model
 - Sharing of applicants across programs filled to capacity could assist students and support program viability

- Student funding
 - The PhD programs should explore a funding model with increased stipends to include TA opportunities (if this is legally feasible)
- Faculty resources
 - Conduct a careful analysis of the teaching roles and obligations of status and adjunct faculty; define responsibilities, opportunities, and benefits for them
- Program development
 - Considerations should be given for more combined degree programs with other health professions, law and business

2. Faculty/Research

The reviewers observed the following **strengths**:

- Research
 - Excellent scholarly impact and performance compared to Canadian and North American universities (e.g., ranked first in Canada (U15) in three Thomson Reuter defined research areas)
 - Considerable strength in 'data science': biostatistics, epidemiology (including clinical epidemiology), health services research expertise, health economics, and in informatics research and teaching
 - Institute for Clinical Evaluative Sciences (ICES) "represents a significant and somewhat unique platform asset of world-leading significance"
 - Eight CIHR Canada Research Chairs with primary appointments in DLSPH, "a significant achievement"
 - Substantial increase in not-for-profit funding
 - Considerable anecdotal evidence that DLSPH research has had a social impact
- Faculty
 - Rich in talent
 - 600 "status only" faculty are a "vitaly important group" in teaching, research and support for graduate students
 - Highly leveraged relationships with DLSPH partners

The reviewers identified the following **areas of concern**:

- Overall quality
 - "No apparent thematic or organizing principles that both explain DLSPH's overall research strategy, and provide a cross-linking framework to bridge them and to guide investment, recruitment and external leverage "
- Research
 - Mixed report card; total research income has declined since 2011 in Tri-Council and other government funding
 - Decline in grant application success rates

- Full cost of research is not funded
- Faculty
 - Only 42 tenure-stream faculty; only 1/3 of total research funding involves tenure-stream faculty as PI
 - No organized effort to recruit and foster post-doctoral researchers

The reviewers made the following **recommendations**:

- Overall quality
 - Develop a research strategy for the School that transcends and builds upon existing constituent entity efforts to further harmonise, synergise and amplify research efforts
- Research
 - Generate and use for continuous performance monitoring better data on research performance that identifies specific DLSPH contributions to outputs and impacts; use recently improved bibliometric and other tools
 - Develop opportunities and national and international partnerships for research in global health, Indigenous health and health ethics, but not at the cost of strengthening the existing core platform
 - Take advantage of existing discipline and platform expertise and assets within DLSPH and its partners to further develop Data Science as a key flagship theme for research; an organized approach to leveraging these assets, led by the University, would amplify leadership and international prominence in data science
 - Organise efforts, university-wide, to more effectively recover the full cost of research (including overheads) for contracted research.
- Faculty
 - The Dean, assisted by the Associate Dean for Research, should develop an implementation plan to integrate status faculty-led work more fully with fulltime faculty and students
 - Implement a specific and programmed effort to recruit, mentor and develop the careers of post-doctoral researchers, with oversight from the Associate Dean Research

3. Administration

The reviewers observed the following **strengths**:

- Relationships
 - High degree of staff commitment
 - Warm and constructive relationship between Dean and Head of IHPME
 - Collaboration arrangements with cognate Faculties
 - IHPME: “strong and effective reputation” with external agencies and professional groups in its ability to influence government policy in the health arena

- Dean's Advisory Council is innovative and provides impressive support to DLSPH with strong participation from external communities
- Organizational and financial structure
 - "Strategically sound and...demonstrably successful" creation of stand-alone Faculty and incorporation of IHPME into DLSPH
 - EDUs provide expanded scope to DLSPH
 - Committee structures appear to function well
- Planning/vision
 - Size of faculty, students, programs give DLSPH the potential to be among the best schools in the world
 - DLSPH activities and aspirations consistent with U of T's academic plan
 - Executed an "inclusive and comprehensive process" to develop DLSPH's strategic plan; staff very positive about this process
 - Strong and committed benefactor whose contributions provide important base for DLSPH activities

The reviewers identified the following **areas of concern**:

- Relationships
 - Staff operate in siloes
 - Collaborations with cognate faculties viewed as "top-down" efforts
 - Significant overlaps between DLSPH and the Faculty of Medicine in public policy, quality assurance and epidemiologic arenas
 - Work remains to be done in more effectively positioning public health within health Dean leadership group
- Organizational and financial structure
 - Duplicative efforts between DLSPH and IHPME (e.g., staff and administrative functions)
 - The EDUs "administratively stretch the capacity of cohesive and integrated management"
 - Complex structure of DLSPH has made it difficult to maintain level of transparency normally associated with RCM funding model
 - Unclear how proposed role for Institute of Global Health Equity and Innovation fits with plans to expand global health activities
- Planning/vision
 - Substantial potential yet to be realized, especially from IHPME's joining the School
 - "Pressing need" to develop a detailed and specific operational plan
 - Limited momentum to carry forward the DLSPH's strategic plan
 - There remain a "number of challenges and tasks to fully realize the benefits and potential of the new entity" (DLSPH)
 - Financial viability of undergraduate initiative was questioned during conversations; reviewers uncertain as to whether there is sufficient demand, or an appropriate place for this type of offering

The reviewers made the following **recommendations**:

- Relationships
 - Engage faculty in interdisciplinary efforts with cognate Faculties
 - Strengthen relationships with all U of T health science Deans and Faculties to exploit partnership opportunities and bolster a consortium of support for public health
 - Establish strong relationship with Faculty of Medicine to optimally recognize overlaps in public policy, quality assurance and epidemiologic arenas between the two Faculties
 - Strengthen relationships with U of T administration
 - Build on existing strengths, especially those within IHPME to extend reach and optimize impact through further development of relationships with policymakers at provincial and federal levels (e.g., building on existing relationships with Public Health Agency of Canada, Public Health Ontario, Toronto Public Health)
 - Build global health activity and impact by developing existing partnerships, with universities in China and elsewhere, into substantial research and teaching collaborations
 - Encourage efforts to recognize the contributions of status only faculty members
- Organizational and financial structure
 - Rationalize/further integrate internal governance and administrative arrangements to allow for efficiencies in staff coverage, course planning and program delivery
 - Consider “fit” of EDUs with DLSPH core mission and strategic plan to allow more cohesion, integration and collaboration
 - Strong administrative structures and supports need to be in place to support this complex environment
 - Review recent administrative changes and performance in one year
 - Align and integrate financial management systems across DLSPH and its EDUs and other structures to ensure available skill sets can manage complex structure
 - Make efforts to increase budget transparency within the DLSPH
 - Appoint a Deputy Dean
- Planning/vision
 - Drive further growth through stronger leadership structure, profile and internal presence
 - Develop a detailed and specific operational plan to bring people on board and have a clear view of accountabilities and milestones
 - Build and confirm relationship with major donor
 - Use success with major donor to identify broader base of philanthropic support, drawing on Faculty and U of T advancement resources

- “Exploit the development of global health research and teaching activities to realize the financial and cultural opportunities associated with increasing the numbers of international students”
- Undertake “serious business analysis, and especially investigation of the potential market for” possible undergraduate degree in public health to assess whether there is sufficient demand/appropriate place for this offering



Howard Hu, M.D., M.P.H., Sc.D.

Dean

Professor of Environmental Health, Epidemiology and Global Health

March 1, 2017

Professor Sioban Nelson
Vice-Provost, Academic Programs
University of Toronto
Simcoe Hall
Toronto, ON M5S 1A1

Dear Professor Nelson,

Re: Administrative response to the external review report for the Dalla Lana School of Public Health

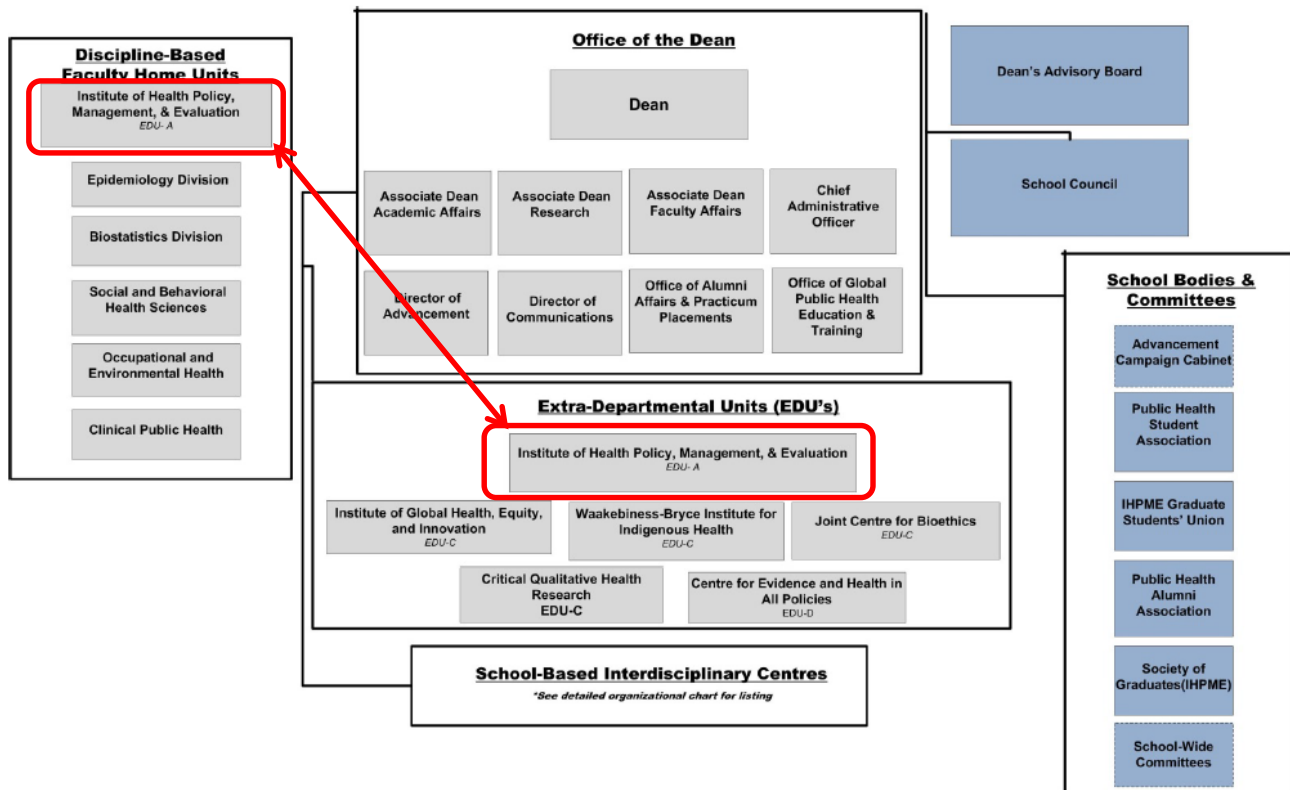
Thank you for providing us with a summary of the external review report and for allowing us to respond to its findings. Given that this was our first UTQAP review since becoming a stand-alone Faculty in 2013, we learned much through the process of our self-study and through the external review, and greatly appreciate the associated opportunity to reflect on our accomplishments, opportunities, room for improvements, and future directions.

Overall, we were delighted that the report was positive and in the Executive Summary noted that *"...the DLSPH has, in the first five years of its expanded structure and new status as a Faculty of the University, demonstrated a high level of both quality and activity in its academic activities. The Faculty is rich in talent and enjoys a high degree of commitment of its staff. The available metrics indicate premier standing in research activity in Canada, and top-shelf performance in North America as a whole."* This is a welcome validation of our strengths, our status, and the rapid progress we have made in establishing ourselves and embarking on a trajectory of excellence.

Below is our administrative response to the specific recommendations and comments raised by the reviewers as synthesized, condensed, and summarized in your letter of February 3, 2017. As requested, we note the DLSPH Senior Management Leader(s) who will be chiefly responsible for working with the Dean to address each area. In addition, as you suggested, we address a few additional areas we would like to prioritize, i.e., selected specific recommendations made by the reviewers that did not appear to be captured by the areas in your summary.

To start, since many of the responses to the recommendations made require background knowledge of DLSPH's administrative structure, we reproduce below the organizational chart from the DLSPH Self-Study. A key **unique** attribute of DLSPH that deserves emphasis is the status of the Institute of Health Policy Management and Evaluation (IHPE) as an EDU-A. In effect, this gives DLSPH an institutional configuration somewhere in between that of a Single Departmental Faculty and a Multi-Departmental Faculty.

Figure 1.2 DLSPH Organization Chart (see also Section 5)



Program Development

- Reviewers encouraged the Faculty to work across the current siloes in the areas of admissions, administration, communications, and program/course content. Addressing financial incentives and barriers associated with the current structure of program offerings could reduce duplication and support expanded course offerings.

DLSPH Senior Management Leads: The Associate Dean, Academic Affairs, in conjunction with other key members of the Dean’s Leadership Team (Associate Dean, Faculty Affairs; IHPME Director; IHPME Deputy Director; Chief Administrative Officer; Director, Communications) and appropriate Program and Course Leaders,

Over the past five years, the DLSPH has matured substantially and developed a new administrative structure that includes three associate dean roles (Academic Affairs, Faculty Affairs, and Research) and it has been able to attract emerging and established academic leaders into these positions. This provides an efficient and effective administrative structure for addressing this particular priority area. Our learners come from various disciplines with a broad array of educational requirements; however we acknowledge the opportunity to improve our integration to create synergies and efficiencies across the DLSPH.

The recommendations of the external reviewers are helpful and in response the DLSPH will:

Short-term action

- i. Develop a plan for coordination of school-wide activities – for example, we have identified time in the monthly calendar to set aside for PHS-wide activities for the coming academic year that bridge across the PHS Divisions. We will further enable coordinated educational offerings that enhance interdisciplinary activities and foster working bridge across IHPME and the PHS Divisions as well across other current “silos”.
- ii. The PHS program directors and Divisional leaders have met and identified a number of activities to enhance educational integration across programs, including
 - a. Mapping course “clusters” in substantive areas that are cross-disciplinary (using the work of the Centre for Critical Qualitative Health Research as an example <http://www.ccqhr.utoronto.ca/graduate-education/course-descriptions>). This work will capitalize on our existing collaborative programs. This work will extend across the entire school.
 - b. Create more opportunities by eliminating barriers for mixing of Masters and Doctoral students in existing courses and creating quarter courses to encourage interdisciplinary opportunities for students.

Medium-term action

- i. We will coordinate promotion and recruitment activities of the DLSPH for the next academic year.
- ii. We will standardize the descriptions of admissions requirements across programs for the next academic year.
- iii. We will enhance sharing of applicants between programs through enhanced communication between the program directors of the Masters and Doctoral streams in PHS and IHPME during candidate selection periods for the next academic year.
- iv. We will reassess the required competencies of the MPH programs and consider aligning DLSPH programs with the Council on Education for Public Health (CEPH) core competencies. We will meet with faculty and students to consider adapting our competencies and develop interdisciplinary courses that address deficiencies across our MPH programs (for example in the area of public health leadership)
- v. We will have a meeting of Collaborative Program leaders at DLSPH to determine how we can capitalise on the strengths and integration of these programs to work across current disciplinary silos at the DLSPH.

Long-term action

With the appointment of a new Dean, we expect to continue to improve our integration in a strategic way, consistent with their vision. We will incorporate new courses and programs based on our short and medium-term action planning and will foster a learner-centric environment. We will also continue to identify areas where we can build cooperative efforts such as in communications where we are already highly aligned and integrated (and will continue to be) and collaborative activities such as recent collaboration between IHPME and the Public Health and Preventive Medicine Residency, and collaborative student-oriented activities such as the all DLSPH open house for prospective students.

Students

- Reviewers encouraged the Faculty to explore strategies to bring time-to-completion in line with international practice

DLSPH Senior Management Leads: The Associate Dean, Academic Affairs, in conjunction with the PhD Program Leads in IHPME and the PHS Divisions,

Members of the faculty are committed to maintaining our high standards for graduate education and are pleased to note the external reviewers commented on our “uniformly strong” PhD programs with “employment data (that) look excellent and are consistent with the best schools of public health internationally”. While our time to completion is within the norms for University of Toronto, we acknowledge that more can be done to improve this metric and have already focused attention on developing strategies to enhance the student experience and improve time to completion.

Short-term action

Over the next six months, we will develop a plan to reduce time to completion for PhD students - the CIFY (complete in four years) plan. We have already held two meetings with PhD candidates and supervisors to encourage creative thinking regarding funding policy changes for PHS students of the DLSPH. These meetings have identified reducing time to completion as an acceptable although challenging goal for students and supervisors. Capitalizing on this momentum, we will meet with faculty and students in a series of focus groups to identify key programmatic barriers and facilitators to timely PhD completion. We will then convene a series of small group “mini-retreats” to develop an operationalized plan to address the individual barriers to timely completion. In the fall of 2017 we will hold a Faculty-wide meeting to present the outcomes of the mini-retreats and to finalize the CIFY plan. We will apply for School of Graduate Studies funding to facilitate this process. We will pick on the same process in IHPME to look to enact CIFY across the entire DLSPH.

Medium-term action

- i. We will change our funding policy for the PHS students within two to three years to provide four years of funding (vs. five years of funding currently) to align with the IHPME funding duration of four years. We will implement the CIFY plan. Possible recommendations that will be enacted include:
- a. Increase funding for PhD students to improve the ability to focus on research
 - b. Increase the investment of the School and capitalize U of T opportunities for student education to
 - c. Increase the investment of the School and capitalize U of T opportunities for professional development for supervisors to enhance student time to completion
 - d. Improve and standardize the path to candidacy for all divisions with the target of 18 months
 - e. Reconsider specific processes that may present unnecessary barriers to completion
 - f. Increase the investment of the School and capitalize on U of T and pan-Canadian opportunities for development of non-academic career skills in our students to enhance employability

Long-term action

We will continually re-evaluate our progress – we will follow time to candidacy closely meeting with students and supervisors semi-annually to ensure progress. We will meet as a school yearly to review our successes and opportunities with respect to timely doctoral completion, and will integrate new initiatives into the CIFY plan as they are identified.

Faculty

- **The reviewers remarked on the number and contributions of status-only and adjunct faculty in the Faculty and encouraged further clarification and recognition of their roles and responsibilities with regards to teaching and research**

Relationships

- Reviewers encouraged the Faculty to continue to build its internal relationships, with health science and other academic divisions, as well as with administrative offices

DLSPH Senior Management Leads: Associate Dean, Faculty, in conjunction with the Director of IHPME; the Heads of the PHS Divisions; Directors of Academic Programs; and the CEO's/designated leads of our external partners

The DLSPH views these above two areas--- “Faculty” and “Relationships”---as inextricably linked, since building our relationships with our partners (and associated opportunities for collaboration in research and teaching) will inevitably depend on continuing to clarify the mutual “value-add” and expectations of ---and strengthen--- our relationships with the status-only, adjunct (and cross-appointed) faculty based in those partners. We therefore address these two areas together. In essence, the DLSPH depends heavily on a strong and long-standing web of relationships with external and internal partners. Our external partnerships are exceedingly strong, as evidenced by the large number of status-only and adjunct faculty from within government, public sector agencies, and hospitals, public health units and other health system institutions that teach and provide other forms of support to the DLSPH. These recommendations are all helpful and re-enforce the third key direction of the draft Dalla Lana Strategic Plan to “Enhance Partnerships and Management of the DLSPH.” More specifically, the School will address these recommendations by:

Short Term Action

- i. Work with our status-only, adjunct, and cross-appointed faculty to clarify expectations with respect to teaching and service, as well as the evolving benefits associated with these DLSPH appointments (such as access to research and communication services; continuing education offerings; etc.)
- ii. Work with our partners to identify shared research priorities that we can support through seed grant and other activities and integrate into our research strategy;
- iii. Work with our partners to refine and increase experiential learning opportunities, such as practicums to take advantage of new CIHR Impact Fellowship programs and calls for greater engagement of our students in our partners’ work (from our draft strategic plan);
- iv. Increase our engagement with the Council of Health Sciences and work with the Council as the vehicle to align our teaching and research programs across faculties
- v. Work with the Vice-Provost, Relations with Health Care Institutions to ensure strong and aligned engagement with hospitals and other health care providers and ensure partnership agreements of all sorts align across the University (e.g. student placement templates)
- vi. Ensure that cross-university governance activities (like the IHPME Executive Committee) meet regularly and reflect University-wide priorities
- vii. Strengthen the terms of reference and role of the Dean’s Advisory Board as a vehicle to engage in joint planning with the health system and the other health sciences faculties at the University;
- viii. Develop a collaborative population health capacity improvement initiative with local agencies (e.g. Public Health Ontario, Toronto Central LHIN);
- ix. Work closely with the Faculty of Medicine to complete a review of existing collaborations to strengthen current activities and identify and prioritize future collaborative initiatives;
- x. Use the existing University level and DLSPH-specific committee structure to engage more closely all health sciences faculties and find ways to develop more collaborative programming;

xi. Work with the Faculty of Arts and Science, UTM and UTSC to ensure that the DLSPH is providing high-value support to existing undergraduate programming and to identify opportunities for further undergraduate programming.

Medium Term Action

i. Use our close connection to the local health system to collect data on workforce and diverse stakeholder needs to build coherent public health and health systems academic program planning and grant submissions (from our draft strategic plan);

ii. Increase high impact capacity development initiatives that help mobilize communities and create resilient health systems. Important initiatives already launched are the Waakebiness-Bryce Institute for Indigenous Health, the IDEAS program, the North American Observatory on Health Systems and Policies, the Centre for Evidence and Health in All Policies, the Healthy Barrie Initiative, a legion of government funded projects on healthy behaviours that support the Ontario Tobacco Research Unit, and the Health System Performance Research Network. All of these initiatives engage policy-makers at multiple levels and most of these initiatives include the Faculty of Medicine as a key partner. New initiatives such as the proposed Centre for Applied Immunization Research will engage the policy-makers and the Faculty of Medicine (from our draft strategic plan);

iii. Ensure a close link between positive impact on health and health systems and the DLSPH's approaches to reward and recognition of faculty and learners that build on impact statements currently included in IHPME's annual review process and strong communications activities already in place (from our draft strategic plan);

iv. Improve the clarity and quality of partnerships with collaborating organizations and institutions, through new and enhanced partnership models that support impact along with scholarship by building on a range of initiatives already underway (e.g. IHPME's policy on status-only and adjunct contributions and the engagement of several status-only faculty members in the leadership team of the school). Specific initiatives will include a school-wide policy on contribution of status-only and adjunct faculty members, greater joint event planning and engagement in research project design and development and stronger recognition of our partnerships and their contribution to our success (from our draft strategic plan). This work will also address the reviewers' recommendation around roles and obligations of status and adjunct faculty members;

v. Understand and remove impediments to collaborative programming with medicine like the MD-MPH, Nutrition Sciences collaborations, and Bioethics activities.

vi. Complete the development process of the joint MD-MPH degree and develop other parallel degrees – following the MD-MSc model already in place between IHPME and the Faculty of Medicine. Although previous combined degrees (MN-MHSc and MSW-MHSc) have been closed or had low subscription, more collaborative work with the Faculty of Medicine may also address the reviewers' recommendation for consideration of more combined degree programs;

vii. Continue to develop ways of engaging decision-makers through Chatham House rule dialogues and other vehicles.

We will also maintain our policy of an "open DLSPH" where all types of faculty are welcome at faculty meetings and other school activities.

Research

- Reviewers encouraged the development of a research strategy through which to pursue research opportunities and partnerships; they also urged more effective recovery of the full cost of contracted research

DLSPH Senior Management Leads: Associate Dean, Research, in conjunction with faculty from the rest of the DLSPH Executive Committee (Director & Deputy Director of IHPME; the Heads of the PHS Divisions; and the Directors of the other EDU's based in the DLSPH) and a planned new Research Committee.

The reviewers' comments on research are very helpful and reflect the importance of building on the research strengths of the DLSPH and working closely with partners across the University of Toronto Community. To respond to these recommendations, the DLSPH will:

Short term action

- i. Develop and release a strategy for research aligned to the DLSPH draft strategic theme of "Ensure globally recognized impact and excellence in public health and health systems research." This will include: (a) creating greater support for collaborative research across all units of the DLSPH, (b) specific programs to press forward data science and other cross-cutting areas of scholarship in a coherent way across the DLSPH and in concert with other units in the University; and (c) lay out policy for the DLSPH on research overhead recovery. This work will build off the plan for *Big Data for Population Health* that was developed earlier in 2016.
- ii. Select and populate scientometric indicators specific to the DLSPH and integrate into the DLSPH's performance measurement framework to be developed this year. (from our draft strategic plan)

Medium term action

Develop a strategy to increase the number of engaged post-doctoral fellows at the DLSPH. Since 2012, DLSPH has had 56 post-doctoral fellows for at least a year. The strategy will aim to double that number by 2020 and will need to address space and related issues (in alignment with the overall research strategy). The new Queen Elizabeth Diamond Jubilee Scholarship program grant will provide the first step in reaching this target.

- i. Orient the global health collaborations we are building towards creating opportunities to apply for major large international awards for research, including implementation research, that are being offered by the sources such as the Gates Foundation; the Rockefeller Foundation; the World Bank, etc.
- ii. Pursue a strategy of deliberating advocating for the placement of DLSPH senior faculty on advisory bodies to the major relevant sources of funding so that DLSPH can gain intelligence on external funding opportunities with sufficient lead time to optimize planning.

The issues of strengthening connections between the research undertaken by full-time faculty and status-only and adjunct faculty are addressed above under "relationships".

Organizational & financial structure

- The reviewers suggested "further integration" across IHPME and DLSPH to ensure that stronger, clearer administrative and governance structures and processes can effectively and efficiently support the Faculty's complex array of programs, EDUs and other activities

- The reviewers flagged the need for a detailed operational plan
- They observed that there may be duplication between existing EDUs and recommended that any new EDUs be clearly aligned with the Faculty's mission & strategic plan
- It may be useful to clarify in your response that the suggestion of a Deputy Dean is not possible under U of T policy.

DLSPH Senior Management Leads: The DLSPH Executive Committee and other key School-wide, PHS-wide, and IHPME-wide Committees.

As noted earlier, the DLSPH has matured substantially and has developed a new administrative structure that includes three associate dean roles (Academic Affairs, Faculty Affairs, and Research) and it has been able to attract emerging and established academic leaders into these positions. This provides an efficient and effective administrative structure for addressing the need for an operational plan to address not only the areas outlined in the review, but also the objectives outlined in our Strategic Plan, 2016-2021

(<http://www.dlsph.utoronto.ca/initiative/strategic-planning/>).

The recommendations of the external reviewers are helpful and in response the DLSPH will:

Short-term action

- i. Increase managerial efficiency at DLSPH and reduce faculty administrative burden by reviewing and eliminating wasteful administrative procedures (from our draft strategic plan);
- ii. Review current administrative structures, the organization of centres, and arrangements (including back office functions) to ensure efficient and student-centred performance;
- iii. Finalize the draft DLSPH strategic plan and create a detailed operational plan that addresses both the objectives of the strategic plan as well as the recommendations of the reviewers in an integrated, efficient manner. A mapping exercise has already been commissioned and drafted examining the correspondence between the Terms of Reference for existing DLSPH units and committees and both the areas related to responding to the external review as well as the objectives of our Strategic Plan. Most needs fit well with the mandates of existing DLSPH units or committees; some can be met by modest expansion in the scope of existing DLSPH units or committees; and a few will require new DLSPH committees (such the planned DLSPH Research Committee and the planned DLSPH Budget Committee).
- iv. Consolidation of some EDU's is already in progress (e.g., a planned merge of the Institute for Global Health Equity & Innovation with the Healthy Cities Hub). Review other current EDU-C and EDU-Ds for alignment with the DLSPH vision and study best practices in structure by looking at comparable UofT faculties and major DLSPH benchmarks such as Harvard, Michigan and the University of North Carolina.

Medium-term action

- i. Increase budgetary transparency by ensuring at least one meeting each year at the DLSPH level and specific to PHS programs to provide detailed information on the DLSPH budget and by providing shadow budgets at the divisional level and approving the IHPME budget on an annual basis (as per the letters accompanying the transfer of IHPME into the DLSPH)

ii. Not appoint a Deputy Dean. Although the reviewers’ acknowledgement of DLSPH’s level of development is welcome and kind, we believe that the DLSPH is best served at this time by maintaining its current administrative structure and not adding a layer. Additionally the suggestion of a Deputy Dean is not possible under U of T policy.

Long-term action

With the appointment of a new Dean, we expect to continue to improve our integration in a strategic way, consistent with their vision. We will incorporate new courses and programs based on our short and medium-term action planning and will foster a learner-centric environment. We will also continue to identify areas where we can build cooperative efforts such as in communications where we are already highly aligned and integrated (and will continue to be) and collaborative activities such as recent collaboration between IHPME and the Public Health and Preventive Medicine Residency, and collaborative student-oriented activities such as the all DLSPH open house for prospective students.

Other Issues We Will Address (from the External Review)

- | |
|---|
| <p>11. Develop opportunities and national and international partnerships for research in global health, Indigenous health and health ethics, but not at the cost of strengthening the existing core platform in public health, epidemiology and biostatistics, occupational health and other key fundamental areas.</p> |
| <p>15. Build global health activity and impact through development into substantial research and teaching collaborations the existing early partnerships with universities in China and elsewhere.</p> |

Given the overlap between these two recommendations, we have chosen to address them together.

DLSPH Senior Management Leads: Associate Dean, Research and Director, Office of Global Public Health; in conjunction with the Directors of the Institute for Global Health Equity and Innovation; Waakebiness-Bryce Institute for Indigenous Health; Joint Centre for Bioethics; DLSPH faculty “champions” that have been cultivated for initiatives in China, Southeast Asia, Sub-Saharan Africa, and elsewhere; and the DLSPH Office of Advancement.

Short-term actions

i. Use the Office of Global Public Health Education and Training (DLSPH) to scale-up several platforms for all of the health science faculties to support global research collaborations and visiting exchanges for graduate students and faculty; grow the number of practicum opportunities abroad, and/or explore opportunities for joint curriculum development in global health. Priority will be given to initiatives where pre-existing relationships exist (e.g. AMPATH Consortium involving DLSPH, Faculty of Medicine and Moi University in Kenya; Mahidol University and Thai Health Promotion Foundation (Thailand), Shanghai CDC, Shanghai Jiao Tong University, Fudan University, Shanghai University of Medicine and Health Sciences (China); the Jockey School of Public Health and Primary Care at the Chinese University of Hong Kong);

ii. Continue to engage and recognize the expertise of its status-only global health faculty members to support the planned expansion of its Collaborative Specialization in Global Health (masters and doctoral streams) and related

curricular and co-curricular offerings and strengthen mentorship opportunities (e.g. practicum opportunities, co-supervision of doctoral students in global health);

Medium and long-term actions

- i. Execute the pending award from the Queen Elizabeth Diamond Jubilee Scholarship program to build a new community of doctoral and post-doctoral researchers from institutions in Sub-Saharan Africa in collaboration with the Statistical Alliance for Vital Events initiative of the Centre for Global Health Research, St. Michael's Hospital. Use this award to accelerate the development of additional initiatives that will support the exchange of global health scholars.
- ii. Work with alumni and stakeholders as well as diaspora communities in the Greater Toronto Area to raise funds to support scholarly exchange with key global health partnering institutions.

13. Take advantage of existing discipline and platform expertise and assets within DLSPH and its partners to further develop Data Science as a key flagship theme for research.

DLSPH Senior Management Leads: Associate Dean, Research and Co-Chairs, DLSPH Data Sciences for Population Health initiative

Short-term actions

- i. The DLSPH has already established a Data Sciences for Population Health committee that was responsible for providing the expertise and resources to participate in the "Patient-Centred Care through Computational Medicine" proposal to the Li Ka Shing Foundation (led by the Faculty of Medicine; results pending); the population health component of the UofT "Data Sciences" proposal for the 2015-2016 Canada First Research Excellence Fund (CFREF) competition (unsuccessful); the DLSPH-based CIHR-supported Canadian Urban Environmental consortium (\$4.5 M grant funded by CIHR, successful); the current Queen Elizabeth II Diamond Jubilee Scholarship proposal to bring foreign scholars to the DLSPH to train in Data Sciences related to vital events (successful review; award pending); the current "Big Data for Exposomic Sciences Integrated with Genomics Network (BiDESIGN) proposal, a \$21M Canadian Fund for Innovation initiative that is a partnership between DLSPH and Sick Kids Hospital (external site visit completed, results pending); and other similar initiatives. The Data Sciences for Population Health committee's faculty are also in the second year of teaching a new course on this subject that is highly popular, attracting students throughout the University. The committee's work on responding to the stream of opportunities in this space will continue.
- ii. The committee is also working on developing new data science training modules that take advantage of existing partnerships between DLSPH and the Institute for Clinical Evaluative Sciences (ICES) and other big data platforms to create capacity development and impact-oriented research programs in data science.

Medium-term/long-term actions

- i. Consider the creation of a Data Sciences for Population Health EDU-C that aggregates research and training activities in this area, including internal partnerships with key UofT units (and associated colleagues) such as the Faculty of Medicine, the FAS Department of Computer Science, the FAS Department of Geography and Planning, the FAS Department of Statistics, the FASE Department of Chemical Engineering; and external partnerships with the Institute for Clinical Evaluative Sciences, the Ontario Health Study/Canadian Partnership for Tomorrow

Project, Public Health Ontario, the Centre for Global Health Research at St. Michael's Hospital.

18. Efforts to increase budget transparency should be made within the DLSPH.

DLSPH Senior Management Leads: Chief Administrative Officer and new DLSPH-wide Budget Committee

Short-term/medium-term/long-term actions

The DLSPH is creating a DLSPH-wide budget committee that will work with the Dean's Office to develop the School's overall annual budget each year, soliciting input from stakeholders as appropriate; and the plan for communicating the external and internal budgeting process, decisions and results.

24. Build and confirm the relationship with the major donor, and use this success to identify a broader base of philanthropic support using a coordinated strategy linking Faculty and University-wide advancement resources.

DLSPH Senior Management Leads: Director, DLSPH Office of Advancement; DLSPH Campaign Cabinet

Using the power of a major benefactor to leverage broad-based philanthropic support is sound advice. Over the next year the DLSPH will:

Short-term actions

- i. Transition the close working relationship of the current Dean and DLSPH Advancement Office with the major donor and other members of the Campaign Cabinet to the Interim Dean and DLSPH Advancement Office.
- ii. Re-confirm the advancement priorities of the DLSPH with the Campaign Cabinet and the Division of University Advancement (DUA).

Medium-term actions

- i. Continue to work on establishing several solid fundraising vehicles that will appeal to a diverse range of alumni and friends, from those that have the capacity to give at higher levels and making a transformational difference to those that will remain engaged with the School by making smaller, consistent gifts year over year;
- ii. Link faculty with University-wide advancement resources, particularly in the area of Foundation relationships, which presents an excellent opportunity for DLSPH and public health and health systems across the University in general.
- iii. Strengthen the relationship with other health faculties to benefit from partnership opportunities "to bolster a consortium of support for public health within the University"; particularly to leverage external partnership opportunities, jointly manage challenges of working with external philanthropic partners, and attract transformational gifts as part of an integrated effort.

Long term actions

i. Work with the major donor, other donors, and DUA to develop a capital campaign strategy that addresses the DLSPH's long-term space needs, particularly with respect to expansion and laboratories that can replace the 100-year old facilities in the Gage Building. (In so doing, potentially leverage the major donor's status as President and CEO of one of the largest real estate developers in the Discovery District of downtown Toronto).

Thank you, again, for the opportunity to provide a response to the external review report. We look forward to all our faculty and staff being involved in shaping our future direction at the Faculty.

Sincerely,



Howard Hu, M.D., M.P.H., Sc.D.
Dean and Professor of Environmental Health, Epidemiology, Global Health, and Medicine

Cc:
Daniella Mallinick, Director, Academic Programs, Planning and Quality Assurance
Cora McCloy, Acting Coordinator, Academic Planning & Reviews
DLSPH Executive Committee

UTQAP Review Summary

Programs(s) Reviewed:	Doctor of Dental Surgery, D.D.S. Master of Science in Dentistry, M.Sc. Doctor of Philosophy in Dentistry, Ph.D.
Division/Unit Reviewed OR Division/Unit Offering Program(s):	Faculty of Dentistry
Commissioning Officer:	Vice-President and Provost
Reviewers (Name, Affiliation):	<ol style="list-style-type: none"> 1. Dr. Cecile A. Feldman, Dean, Rutgers School of Dental Medicine 2. Dr. E. Dianne Rekow, Executive Dean, Dental Institute King's College London 3. Dr. John N. Williams, Dean, Indiana University School of Dentistry
Date of Review Visit:	November 30-December 2, 2016

Previous Review

Date: October 2011

Summary of Findings and Recommendations:

1. Undergraduate Programs (Doctor of Dental Surgery, DDS)

The reviewers observed the following **strengths**:

- High quality program: major positive changes in response to previous reviews
- Competitive applicant pool with high standards and outstanding students
- Current curriculum with a commitment to interdisciplinary and integrated patient care
- Students engage in Interprofessional learning with other health professions
- Commitment to ensuring a diverse, multicultural community

The reviewers identified the following **areas of concern**:

- Facilities: students view clinical teaching facilities as outdated
- Faculty: insufficient staffing of clinical programs

- Unresponsive Student Services

The reviewers made the following **recommendations**:

- Consider onsite counselling services for students.
- Consider more clinical experience for students in the external community.

2. Graduate Programs (Dentistry MSc, PhD)

The reviewers observed the following **strengths**:

- Key strength is in graduate education; PhD training is exceptionally strong
- All programs are led by respected leaders in their disciplines
- Only Dental School that offers all recognized dental specialty programs
- Robust applicants and students are high quality
- Curriculum: Clinical education – well supported by high quality research experiences
- Programs enriched by exceptionally strong research and discovery environment

The reviewers identified the following **areas of concern**:

- Specialty program trainees seek more interdisciplinary learning opportunities
- The reviewers made the following recommendations:
- Consider expanding PhD training to tap into the rich scientific environment and to encourage new collaborations
- Develop greater focus on interdisciplinary care

3. Faculty/Research

The reviewers observed the following **strengths**:

- Outstanding depth and breadth of research

The reviewers identified the following **areas of concern**:

- Dearth of qualified academic clinical faculty, particularly acute
- Absence of a long-term “clinician-teacher” track for teaching faculty
- Faculty development: ad hoc and uneven between disciplines

The reviewers made the following **recommendations**:

- Establish a more flexible faculty structure: a clinical track
- Develop a faculty mentoring plan

4. Administration

The reviewers observed the following **strengths**:

- Outstanding leadership from the Dean

The reviewers identified the following **areas of concern**:

- Leadership successor to continue benefits to the faculty
- Faculty lacks a clear vision or strategic plan to move forward

- Inadequate and outdated facilities and equipment affecting teaching and research
- Organizational structure is large, confusing and burdensome
- Budget: unsustainable model

The reviewers made the following **recommendations**:

- The next Dean must develop a clearly articulated vision and strategic plan
- Organization: seek to be more collaborative and integrated
- Governance: establish clear lines of authority, responsibility and accountability
- Facilities: break down research silos to enable more flexible and efficient use of both clinical and research space and find economies of scale
- Budget: enhance revenue streams to accumulate necessary strategic assets.

Current Review: Documentation and Consultation

Documentation Provided to Reviewers

The following documents were provided:

- Terms of Reference
- Self-Study 2016
- Faculty of Dentistry Strategic Plan 2014-2019
- Faculty of Dentistry Strategic Plan - Year One Report 2015
- Faculty of Dentistry Strategic Plan - Year Two Report 2016
- List of Major Faculty Honours and Awards
- Previous External Review (2011)
- ACFD Competency Framework
- CDAC Requirements for DDS DMD Programs - Degree Level Expectations
- Constitution and By-laws
- Faculty Calendar 2016-17
- Undergraduate Course List - 2016-2017
- Graduate Course List
- External Research Review Report 2015
- Student Services statement - St George Campus
- Library Report
- Faculty members' CVs

Consultation Process

The reviewers met directly with the following:

- Vice-President and Provost
- Vice-Provost, Academic Programs

- Senior Academic Leaders of the Faculty of Dentistry, namely;
 - Vice-Dean Research
 - Vice-Dean Education
 - Associate-Dean Undergraduate Education
 - Associate-Dean Graduate Education
- DDS representatives: Student Society Executive, the 4 DDS class presidents
- Senior Administrative Staff of the Faculty of Dentistry, namely;
 - Assistant Dean Administration/CAO
 - Assistant Dean/Director of Clinics
 - Director of Continuing Dental Education
 - Director of Advancement
 - Registrar
- Open invitation meeting with Tenured Faculty members
- Directors of EDUs where Dentistry is a partner (UofT Centre for the Study of Pain and IBBME)
- Open invitation meeting with Administrative Staff
- Alumni Representatives
- Cognate Deans (the 7 Deans of the Council of Health Sciences, plus Engineering)
- Selected DDS course directors
- Hospital Dentistry Chiefs
- Professional Regulatory leaders
- Graduate Specialty Program Directors
- Graduate Student representatives
- Open invitation meeting with New Faculty (full-time)
- Open invitation meeting with Part-time Faculty
- Research and Business Development Officer

Current Review: Findings and Recommendations

1. Undergraduate Program

Doctor of Dental Surgery (D.D.S.)

Note: The reviewers created a separate Clinical Service section in their report but it is subsumed within the Undergraduate Program and presented here.

The reviewers observed the following **strengths**:

- Curriculum and program delivery
 - Aspire to develop interdisciplinary courses and entrepreneurial experiences for students
- Support
 - Dean's leadership as Co-Chair of the Centre for Interprofessional Education governance committee
- Quality indicators

- Quality of applicants and enrolled students
- Strong academic outcomes as measured by National Board examinations and on time completion rates
- Students
 - Students self-reported reasonable employment prospects upon graduation
 - Robust student demand from both traditional students and internationally trained dentists
- Resources
 - Downtown location provides access to large patient base

The reviewers identified the following **areas of concern**:

- Curriculum and program delivery/assessment of learning
 - Lack of incorporation of new advances in technology (e.g. CAD/CAM, pedagogy-technology and technology driven assessment)
 - Lack of endodontic clinical experiences
- Enrolment
 - Undergraduate (D.D.S.) student enrollment at capacity unless U of T considers some type of alternative scheduling or split class model
- Faculty resources
 - High reliance on part-time faculty leads to challenges in calibration and consistency in instruction within each academic year and over the entire program, including in clinical elements of program
 - Reliance on individual course directors to recruit other course faculty with limited vetting

The reviewers made the following **recommendations**:

- Overall
 - Continue to pursue the goals for enriching educational programs outlined in Dentistry's 2014-19 Strategic Plan
- Curriculum and program delivery/assessment of learning
 - Assess the professional practice and education environment to determine the most useful new technologies currently employed in clinical practice; develop a plan and integrate best practices into future plans and budget
 - Evaluate and improve effectiveness of patient recruitment as teaching cases to improve student experiences with patient care
- Faculty resources
 - Review faculty composition to optimize the balance between part-time and full-time for consistency in instruction
 - Implement policies and procedures to strengthen faculty calibration in all teaching settings, including clinical
- Resources

- Conduct a feasibility plan for clinical renovation and renewal to ensure the creation of a modern clinical facility

2. Graduate Program

Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.)

The reviewers observed the following **strengths**:

- Overall quality
 - Comprehensive graduate education (M. Sc. and Ph.D.) with all ten recognized specialties
- Quality indicators
 - Good mix of Ph.D. candidates distributed throughout the various graduate programs
 - Good number of applicants and admitted students; good enrollment/student completion rates and time to completion
 - Good quality of educational experience and teaching
- Students
 - Students make no mention of major difficulties with educational outcomes or time to degree completion
 - Each year, Canadian Institutes of Health Research support students to work through the summer months in the research laboratories. Students awarded such scholarships report the results of their work at research seminars
 - Robust student demand
- Student funding
 - Provision of graduate student financial aid
- Support
 - Good graduate supervision

The reviewers identified the following **areas of concern**:

- Curriculum and program delivery
 - Mismatch of M.Sc. programs outcomes (which require thesis/research) and student desired outcomes (limited interest in research) dilutes faculty productivity
 - Size of some specialty programs may be below critical mass and may not be cost effective to sustain financially but may be important to support the Faculty's mission
- Support
 - Some students voiced concern about lack of administrative responsiveness to student matters

The reviewers made the following **recommendations**:

- Curriculum and program delivery

- Review all ten specialty programs for consistency with program and faculty mission, need/demand and financial performance; consolidate or redesign if indicated
- Coordinate the M.Sc.-specialty research projects to build on thematic research areas to advance pilot projects/data collection for enhanced opportunities for extramural funding
- Assess the perceived mismatch of M.Sc. program outcomes and student desired outcomes; redesign programs and degree options accordingly
- Support
 - Review the provision and effectiveness of student support through orientation, advising/mentoring, student services, registrar and office of student life
- Faculty resources
 - Assess level of faculty in decision making for program investments in research; enhance their role if indicated

3. Faculty/Research

The reviewers observed the following **strengths**:

- Overall quality
 - Areas of research strength and future growth include multidisciplinary approaches in several fields
- Research
 - The Faculty is a major research centre in Canada and internationally with a major commitment to and long tradition of dental research
 - Highly ranked in publications and citations again Canadian (1st) and North America peers (5th and 7th)
 - Enthusiasm for pursuing Intellectual Property (IP) and technology transfer for commercialization
 - Aspiration to focus research emphasis on fewer areas
 - Burlington Growth Centre Legacy Collection is a tremendous asset for international research collaborations in orthodontics and grown and human development
- Faculty
 - Energetic, dedicated research faculty both Full-Time and Part-Time
 - Diversity of faculty gender and nationality
 - Protected time for new faculty and mid-tenure review term release program to focus faculty on research effort
 - Generous opportunity for sabbaticals
 - Establishment of Teaching stream position similar to a Clinical stream

The reviewers identified the following **areas of concern**:

- Research

- How best to maximize research investment and return (ROI) by focusing on fewer areas
- Faculty
 - Need for protected time for faculty to develop and sustain “a robust research program”
 - Some faculty and staff unclear on basis of salary increases

The reviewers made the following **recommendations**:

- Overall quality
 - Review and implement the findings and recommendations of the external reviews of the U of T Faculty of Dentistry Research program (April 2015)
- Research
 - Review and articulate priority research areas; establish markers and measures of progress; roadmap to include “The Center of Excellence”
- Faculty
 - Review faculty workload to determine if it is realistic for research intensive faculty to build and sustain a robust research program and to obtain extramural funding
 - Clarify the annual performance review for each faculty
 - Consider a formal mentoring program coordinated by the Undergraduate and Graduate Associate Deans to match senior faculty with junior faculty
 - Faculty needs to establish or clarify the balance of time commitment expectations and/or differences between tenure and teaching stream faculty; seek concurrence with Provost

4. Administration

The reviewers observed the following **strengths**:

- Relationships
 - Provides an important service for the dental community through its Continuing Dental Education programs
 - Faculty has excellent ties to and is well regarded by other U of T Deans, the Ontario Dental Association (ODA), and the Royal College of Dental Surgeons of Ontario
 - In general, faculty and staff are pleased with the direction the Faculty of Dentistry is heading
- Organizational and financial structure
 - New organizational structure and annual assessment plan have been implemented since July 2016, addressing issues from the 2011 External Review, and consistent with Dentistry’s vision, mission and values and U of T’s mission
 - Willingness to investigate organizational structure and implement changes

- Willingness to engage in financial changes to eliminate significant budget deficit
- Amount of space dedicated to clinical education
- Planned research space renovations will bring together most research intensive faculty and core facilities within the physical plant of the Faculty
- Planning/vision
 - Commitment to and enthusiasm for fundraising and development, including development of philanthropic attitude in graduate students
 - Leadership of the Dean and newly appointed administrators
 - Opportunity to use clinical program to build and enhance clinical research projects
- Reputation/profile
 - Faculty and its programs are highly ranked and relative to the best in Canada/North America and internationally

The reviewers identified the following **areas of concern**:

- Relationships
 - Graduate and undergraduate faculty do not always talk and share experiences and knowledge
- Organizational and financial structure
 - Faculty and administrative staff unclear on redefined roles and responsibilities
 - Stability of budget in the future (2017-22)
 - Research renovations capital cost may highly leverage future budget with long term debt service
 - Adequate financial resources to support efficiencies and cost effectiveness of all clinical operations (based on budgetary review)
 - Clinical space and facilities in critical need of modernizing
 - Students concerned about Registrar's timeliness and responsiveness
- Planning/vision
 - Future five year budget plan and long range viability of all programs

The reviewers made the following **recommendations**:

- Relationships
 - As clinical and technological advances are often first implemented for various disciplines in the graduate programs, it is imperative that there be ways to ensure that graduate and undergraduate (D.D.S.) faculty are talking and sharing experiences and knowledge to minimize separation; develop formal mechanisms to ensure faculty engagement both within and across disciplines
 - Faculty of Dentistry should continue to work as a resource to develop policies and standards for the Royal College of Dental Surgeons of Ontario

- Organizational and financial structure
 - Review future five year budget model (2017-22) to develop plans to assure financial stability
 - Enhance internal and external communication regarding organizational changes as well as roles and responsibilities of faculty and staff
 - Conduct annual assessment of organizational changes
 - Consider ways to assist administrator responsible for supervising and managing D.D.S. faculty
 - Review clinical operations emphasizing how the budget can sustain these programs over the next five years
 - Complete the space renovations of the research laboratories
 - Evaluate the level of service and responsiveness provided by Registrar and related Student Services; make modifications if indicated
- Planning/vision
 - Planning for the process to develop a new academic plan for 2019 onward should take place in 2017-18
 - Investigate alternatives to increase revenues and decrease costs
 - Develop a capital plan which enables the renovation or building of new facilities to replace the aging clinical facility



UNIVERSITY OF TORONTO
FACULTY OF DENTISTRY

February 26, 2017

Sioban Nelson
Vice-Provost, Academic Programs
University of Toronto

re: response to external review

Dear Professor Nelson:

Thank you for forwarding the External Review Report of the Faculty of Dentistry, its undergraduate program: Doctor of Dental Surgery, D.D.S., and its graduate programs: Master of Science in Dentistry, M.Sc., and Doctor of Philosophy in Dentistry, Ph.D.

I wish to thank the external reviewers for taking the time to evaluate our programs and prepare their thoughtful and helpful report, which indicated both our strengths and challenges. As they have noted, we continue to implement our 2014-19 Strategic Plan. The following is our response to the recommendations as stated in your letter.

Undergraduate Program

1. The reviewers encouraged the Faculty to determine the most useful new technologies currently employed in clinical practice and develop a plan to incorporate these into the traditional educational program now and in the future.

The Faculty is currently investigating the use of a number of technologies for our programs and implementation is an ongoing activity. For example, with respect to clinical education, new technologies are continually being incorporated into clinical operations as they become commercially available. Our Assistant Dean/Director of Clinics is leading this endeavour. A recent example of new technology being implemented in the undergraduate clinic includes CAD/CAM (computer-aided design and computer-aided manufacturing) scanning to permit dental restorative procedures such as crowns to be completed in one day compared with much longer time periods using traditional methods. Other examples of technology at the undergraduate level include the latest in rotary root canal preparation systems, computerized local anesthetic delivery, and digital 2D and 3D x-ray imaging. At the graduate level, the newest

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microscopy for endodontics (root canal therapy) has just been implemented along with the latest in dental implant treatment planning and placement technology. Looking longer term, over the next three to five years, digital models will be incorporated into the graduate orthodontic program permitting students to eliminate the traditional dental impression and to virtually manipulate a set of models on the computer screen, as well as virtual treatment planning of multi-jaw orthognathic surgery.

With respect to clinical management and Information Technology, axiUm[®], the clinic management system, continues to be expanded. A new dispensary module will be implemented in the spring of 2017. In the medium term, over the next one to two years, the integration of this system with central sterilization is a priority.

With respect to didactic teaching and learning, our Vice-Dean Education and our Associate Dean Undergraduate Education are leading the efforts to employ new technologies. We are currently in the process of adopting a method for online course evaluation and electronic testing (Examsoft[®]). This is currently being pilot tested in the second year of the D.D.S. program. We are aiming for implementation in the medium term, over the next one to two years. For the past few years, lectures have been enhanced through their recording (Lecture Capture) and we continue to encourage more faculty members to utilize this resource. Electronic education material through the Dental Procedure Education System (DPES) continues to be developed. Digital learning tools are being introduced in a number of courses, such as in Oral Pathology and Oral Radiology.

2. Reviewers suggested that student experiences in patient care might be improved through more effective recruitment of patients as teaching cases.

This is a challenging objective that the Faculty recognizes needs to be addressed in both the short and long terms. Students currently do gain a solid foundation in basic care. Where their experiences could be strengthened are in a few areas of more advanced care. Unfortunately, the reality is that advanced care can be costly to provide. Our patient demographic is such that financial constraints limit their ability to undergo all dental procedures that, in turn, can have an impact on student experience. The Access to Care Fund currently exists to mitigate the financial barriers for patients in need. To address this concern, the Faculty will investigate mechanisms to improve its utilization and grow its capacity. As an example, since the time of the External Review, the Faculty has now received a generous donation of \$250,000 to the Access to Care Fund. This should allow more patients to receive more advanced care that, in turn, benefits both patients and students. Our Assistant Dean/Director of Clinics and our Director of Advancement lead these efforts.

Graduate Programs

3. Reviewers recommended reviewing all 10 specialty programs for consistency with program and Faculty mission, need/demand and financial performance; they suggested this could lead to consolidation or redesign.

The reviewers recommended redesigning MSc program and degree options to address any mismatch between existing programs outcomes and student desired outcomes, especially in relation to research activities.

A review of all of our graduate specialty programs is now commencing, being led by our Associate Dean Graduate Education. Our Assistant Dean/Chief Administrative Officer and Assistant Dean/Director of Clinics will lead an investigation of their financial performance. Since 1998 clinical specialty training in the Faculty has been incorporated into graduate programs. It currently exists as different degree programs; a course-based M.Sc., a doctoral-stream M.Sc., and Ph.D. Since that time, the desired outcome for a vast majority of students has shifted from work in the public to the private sector, and students who have received M.Sc. or Ph.D. degrees from peer-institutions worldwide have developed an interest in clinical specialty training in dentistry at the University of Toronto. Moreover, a number of students have already undertaken clinical specialty training in one area, but wish to pursue a second specialty in another area. Currently, regardless of a student's clinical or academic credentials, that student is mandated to undertake M.Sc. degree work in addition to their clinical program. This inflexibility, as implied by the external reviewers, has motivated us to re-envision graduate specialty training in the Faculty for the future.

To address these issues, the Faculty has very recently begun discussions with the Vice-Provost Academic Programs Office regarding a restructuring plan of the Faculty's graduate offerings that incorporate concurrent clinical training in one of the dental specialty programs that we offer. It should be noted that these discussions are in their infancy and will require additional discussions with the broader university community and provincial government.

For the long-term, ideally within the next three to five years, we would like to see the Graduate Department offering a single doctoral-stream M.Sc. degree and a Ph.D. degree. Should an applicant also have a degree in dentistry, that individual may choose to apply to a suite of Diploma programs; one for each of the dental specialties. Any applicant applying without a graduate degree from a peer institution would be required to enroll in either the M.Sc. (Dentistry) or Ph.D. (Dentistry) program, and the Diploma program in the dental specialty of their choice. However, for a candidate entering with a M.Sc. from a peer institution, that candidate could enroll in their chosen Diploma program without having to complete a second M.Sc. degree, or enroll in the Ph.D. program and their chosen Diploma. For a candidate entering with a Ph.D. from a peer institution, that candidate could enroll in their chosen Diploma program and engage in research as a post-doctoral fellow. We would see this last option as a positive step in encouraging a future career in the academy as a clinician-scientist.

The improved flexibility of these new programs could potentially permit a student to enroll in the M.Sc. program and 2 concurrent Diploma programs within the Faculty of Dentistry or potentially combine a Diploma program with a degree offered through another Faculty at the university. These opportunities will have the long-term benefit of distinguishing our programs from the increasing number of clinical specialty programs in dentistry across Canada and the United States.

Students

4. Reviewers recommended that the Faculty evaluate the quality and responsiveness of student support provided by the Registrar and related offices and make modifications if indicated.

In 2016 the Faculty commissioned an external review of its Registrar's Office. Its stated objective was written as follows: *"The review will consider the functioning and services of the Faculty Registrar's office, with a view to promoting effective delivery of services and provision of support to promote student success."* A two-day site visit was conducted by a three-person team in October 2016. At the time of writing, we are waiting receipt of this report. Following its receipt, we will take into account its recommendations and act accordingly, in order to address concerns raised by the External Review of the Faculty. Being led by the Dean and Vice-Dean Education, we anticipate implementing the recommendations as soon as practicable.

Research

5. Reviewers encouraged the Faculty to implement the findings and recommendations of the April 2015 review of research.

The plan to address this recommendation is being led by our Vice-Dean Research. Consistent with the External Review Report of our Faculty, the 2015 external review of research commended the solid international reputation of the Faculty's research enterprise. It also presented a number of recommendations of varying urgency and priority. Among those, the following lists the most prominent, followed by our actions regarding implementation.

- i). Need to improve communication and collaboration between basic science, clinical, public health and educational researchers.

We have since established "Research Rounds" as a monthly venue for all faculty members involved in all research areas to discuss current issues including opportunities to improve communication and stimulate collaboration. In January 2016 we hired a Research and Business Development Manager to develop specific strategies to a) increase grant success, b) intensify collaboration between basic science and clinical researchers and c) facilitate the translation and commercialization of research findings in all areas. This has led to several large grant submissions (e.g. CFI) including co-applicants from within and outside the Faculty, and has spurred specific collaborations between researchers in different areas (e.g

public health and immunology; and modulation of pain perception in collaboration with researchers at the Faculty of Music).

ii). Need to clarify and focus administrative support for research.

The Faculty's recently implemented new organizational structure reflects the equal importance of education and research as our main academic mandates. The reporting structure within the Office of Research has been streamlined with all support staff (financial, administrative, and technical) now reporting to the Vice-Dean Research.

iii). The need for consistent representation at appropriate research-related University Councils and committees.

In the fall of 2016 the Vice-Dean Research was appointed as member of the University's Research Advisory Board and the Institutional Research Leadership Group. This has improved visibility of research at the Faculty of Dentistry on an institutional level.

iv). Various recommendations for improvements of research resources.

These ranged from allocation of an appropriate budget for internal research funds for seed projects and support for junior faculty, to improvements in research infrastructure. The office of research has worked with the Assistant Dean/Chief Administrative Officer to develop such a research budget under oversight by the Vice-Dean Research. The most appropriate allocation of these limited funds for the short-and long-term benefit of focus and efficiency is currently being reviewed. The research infrastructure has recently seen the greatest infusion of funds for this Faculty in well over 30 years through the Federal Government's Strategic Initiative Fund (SIF), which has allowed us to realize plans for the complete renovation of our research facilities that are housed on the fourth and fifth floors of the Dentistry building. These ongoing renovations are expected to be complete by April 2018 and will accommodate the vast majority of our research faculty in state-of-the-art laboratories.

6. Reviewers observed that articulating priorities and focusing on fewer areas may maximize research investment.

Led by the Vice-Dean Research, the Faculty's Office of Research has identified main areas of research strength (biomaterials, cancer/oral pathology, connective tissue/wound healing, dental public health, microbiology, and pain) and an area of future growth (education research).

Targeted support and investment in these particular areas is expected to increase investment revenue and overall impact, over the long-term.

Faculty

7. Reviewers suggested that the Faculty review faculty composition to optimize the balance between part-time and full-time; they suggested that an optimal balance and better mechanisms for calibration across teaching staff could strengthen teaching and consistency of instruction across all programs, including clinical teaching.

As is commonly found in dental schools in Canada, there is an ongoing challenge recruiting academics in the clinical fields. The Faculty will be taking advantage of the newly created professorial teaching stream to more appropriately recruit faculty for clinical teaching. Led by the Dean and Vice-Dean Education, the Faculty will review the composition of the faculty complement, with a view to gradually decrease the number of part-time faculty with a corresponding increase in the number of full-time faculty. This review will be implemented over the long-term.

Led by our Vice-Dean Education and our Associate Dean Undergraduate Education, teaching quality and calibration are being addressed in the current Progress Report of our Strategic Plan 2014-2019. A working group has been formed to develop a formal program to strengthen teaching quality across undergraduate and graduate programs. This involves collecting data on teaching quality at the Faculty and to develop a robust program that will improve the teaching quality of the faculty members and instructors in dentistry. Topics have been identified and will be scheduled on a regular basis to calibrate and improve the clinical teaching. Faculty members are also encouraged to attend CTSI and ADEA (American Dental Education Association) seminars and programs.

8. Reviewers commented on Faculty workload, specifically the balance between research, teaching and service; in your response it may be useful to explain what is/is not possible under U of T policy.

The University of Toronto is committed to a 40:40:20 distribution of research:teaching:service for its professorial stream faculty. Those in the teaching stream (both professorial and lecturer) are expected to have a higher percentage devoted to teaching. During a faculty member's pre-tenure years the Faculty will pursue a policy of minimizing any service commitment, thus freeing up time to devote to scholarly activity. This plan will be led by the Dean with direct oversight of mentoring for junior faculty led by the Vice-Dean Research and Vice-Dean Education.

Relationships

9. Reviewers suggested the Faculty enhance internal and external communication (e.g., regarding organizational changes, roles and responsibilities) and find ways to support faculty engagement within and across disciplines.

The Faculty's Communications Officer, a new position that commenced in 2015, will lead the efforts to seek ways to further improve communications both internally and externally.

Internally, the Faculty has recently undergone numerous changes, including a major structural reorganization. This new structure took effect in July 2016 and its implementation is now occurring. Planning of this reorganization took place over a two-year period that included a number of open information sessions/townhalls and focus groups for faculty, staff, and students. One of the objectives of the new organizational structure was to break down perceived silos between and among the many disciplines and to improve faculty engagement. This new structure will be assessed by a number of stated performance measures and its progress will be reported to faculty, staff and students on a regular basis. Similarly, we will pursue conveying more clarity regarding roles and responsibilities of faculty and staff. Since the External Reviewers were at the Faculty, we have hired someone to fill a newly created position: Manager, Academic Administrative Services. Part of this person's role is to clearly communicate the roles and responsibilities of the administrative staff.

External communications have recently been strengthened by means such as a monthly e-newsletter that is sent out to both internal and external constituents, and a significantly redesigned alumni magazine. Most recently, led by our Communications Officer and Manager of Information and Instructional Technology Services, our Faculty website has undergone a complete review and redesign, and this new one will be launched at the end of February 2017. An ongoing activity of our Communications Officer will be to reassess all of these vehicles to look for means of improvement.

Resources and Planning

10. Develop plans to ensure financial stability, including around clinical operations, without negatively impacting the current quality of research or teaching.

This is clearly a significant challenge for the Faculty of Dentistry and one that requires a long-term plan. The Dean will lead this plan in consultation with the Assistant Dean/Chief Administrative Officer and the Assistant Dean/Director of Clinics. The greatest financial challenge resides in the reality of running a clinical education program within the university. Rising costs of delivering dentistry, as seen by examples such as improved standard of care in infection control, electronic patient records, and digital radiography, outweigh the clinical income as our patients are charged reduced fees. A number of plans for financial stability will be considered. These include potential operational efficiencies through automation of clinical

activity where possible. We will investigate potential administrative efficiencies. We will capitalize on our recent leadership change in Advancement and the creation of a position of Communication Officer to enhance the Faculty profile and alumni relations that, in turn, can hopefully lead to increased level of donations. We will continue discussions with the provincial government to seek increased funding for clinical education.

11. Reviewers recommended that the Faculty complete the renovations of its research laboratories and develop a capital plan to enable the renovation or building of new facilities to create a modern clinical facility.

The research revitalization program is now underway, as mentioned above in the discussion on research. This proposal has been a beneficiary of the SIF funding provided from the 2016 federal budget announcement. The renovation of our entire research facility is on schedule to be completed by the target date of April 2018.

A feasibility plan for clinical renovation and renewal with attention to sequencing a project to create a modern clinical facility is now underway. As a current Strategic Plan priority being led by the Assistant Dean/Director of Clinics, this proposal is scheduled to be presented by the end of the 2016-17 academic year. A capital plan for this proposal will then follow, and will be led by the Dean.

Summary

The External Review Report generated a number of recommendations that will help strengthen the Faculty of Dentistry. We will take all of these into account and incorporate them as we concurrently continue to implement our Strategic Plan priorities.

Sincerely,



Daniel Haas, DDS, PhD, FRCD(C)
Professor and Dean
Zwingerberger Decanal Chair

UTQAP Review Summary

Programs(s) Reviewed:	Medical Biophysics – MSc, PhD
Division/Unit Reviewed OR Division/Unit Offering Program(s):	Department of Medical Biophysics
Commissioning Officer:	Professor Trevor Young, Dean, Faculty of Medicine
Reviewers (Name, Affiliation):	<ol style="list-style-type: none"> 1. Professor Paul DeLuca - Department of Medical Physics, Emeritus Provost and Vice Chancellor for Academic Affairs, University of Wisconsin, Madison 2. Professor David Litchfield - Department of Biochemistry; Director, Functional Proteomics Facility, Western University 3. Professor Bruce Pike - Department of Radiology, University of Calgary; CIHR Panel Chair for Medical Imaging and Physics
Date of Review Visit:	November 1-2, 2016

Previous UTQAP Review

Date: March 21-22, 2012

Summary of Findings and Recommendations:

Graduate Programs: Medical Biophysics – MSc, PhD

The reviewers observed the following **strengths**:

- Canada's most successful biomedical graduate program
- Outstanding quality of applicants, faculty, graduates, educational experience, teaching, and graduate supervision
- Innovative cross-disciplinary approach to research and education
- Large number of student lead-author manuscripts
- Very high faculty and student morale

The reviewers made the following **recommendations**:

- Continue curriculum revision
- Ensure appropriate doctoral times to completion
- Ensure the Department has sufficient influence on faculty recruitment and research directions
- Further strengthen collaborations across multiple sites and disciplinary areas to support the Department's teaching and research missions
- Develop a uniform admissions process and a common first and second year curriculum across the basic science graduate programs.

Current Review: Documentation and Consultation

Documentation Provided to Reviewers

Terms of Reference; Self-Study Report and Appendices; Schedule; Dean's Report 2016; Faculty of Medicine's Strategic Priorities; Previous External Review Report (2012) and the Dean's and Chair's Responses.

Consultation Process

The reviewers met with the following:

1. Dean, Faculty of Medicine and Vice Provost, Relations with Health Care Institutions

2. Vice Dean, Graduate and Academic Affairs
3. Department Chair
4. Executive Committee
5. Research session – Vice Dean, Research and Innovation; Vice President, Research, Sunnybrook Health Sciences Centre; Director of Research, Sinai Health System; Vice President Research, University Health Network
6. Cognate Department Chairs
7. Graduate Education Academic Administrators
8. Sunnybrook Research Institute – Senior Scientist and Canada Research Chair; Director, Physical Sciences; Director, Schulich Heart Research Program
9. Graduate Student Association, including MSc and PhD students in physics and biology
10. Assistant, Associate, and Full Professors
11. Administrative Staff

In addition, the external reviewers held onsite meetings at Sunnybrook Research Institute and were given a tour of the Princess Margaret Cancer Research Tower by Vice President, Research, University Health Network and a Senior Scientist.

Current Review: Findings and Recommendations

1. Graduate Program

Medical Biophysics – MSc, PhD

The reviewers observed the following **strengths**:

- Overall quality
 - “Flourishing” program provides strong research training and career development opportunities for a large number of graduate students
- Objectives
 - Consistent with other graduate programs within the Faculty of Medicine and with the expectations of a research-intensive program that emphasizes the training of independent researchers
- Admissions requirements
 - Appropriate to the overall objectives of the program and consistent with comparable programs within the Faculty of Medicine and at other institutions
- Curriculum and program delivery
 - Revitalized, modernized curriculum reflects the current state of the discipline
 - New, modular course structure harmonizes course weighting with cognate programs within the Faculty of Medicine, increases the opportunity for students to take a broader selection of course offerings, engages more faculty in course delivery, and allows for more regular updates as the discipline evolves

- Program's emphasis on in-depth study of a research topic is consistent with research-intensive graduate programs elsewhere and the training requirements for future research scientists/independent investigators.
- Assessment of learning
 - Methods of evaluation are consistent with that of similar programs
- Quality indicators
 - Program graduates excellent students
 - With possible exception of time-to-completion, show that MBP succeeds in providing strong research training and career development opportunities for a large number of graduate students
- Enrolment
 - Strong enrolment maintained
- Students
 - The organized and active Graduate Student Society "strengthen[s] the sense of community" and is committed to the success of the programs; students play a significant role in program events

The reviewers identified the following **areas of concern**:

- Quality indicators
 - Student time to completion, while in line with North American peers, may be affected by potential gaps in the supervision of some graduate students, including gaps in monitoring/facilitating student progression
- Enrolment
 - Unfilled enrolment capacity linked to limited supply of qualified applicants may reflect limited recruitment catchment (Southern Ontario)
- Support
 - Students were sometimes unclear about processes for resolving concerns with supervisors or potential conflicts
- Program administration
 - "Marginally adequate" level of administrative support to operate graduate program activities; MBP lacks capacity to support new initiatives such as communications, recruitment

The reviewers made the following **recommendations**:

- Admissions requirements
 - Continue efforts to harmonize graduate recruitment and admissions as well as graduate course offerings and student rotations to promote further synergy with other complementary graduate programs
- Curriculum and program delivery
 - Align courses and other program expectations to well-defined learning outcomes and degree-level expectations to ensure that the training of each student does achieve the desired expectations.

- Quality indicators
 - Consider establishing an independent monitoring committee that will provide oversight of progress to PhD and report directly to the department chair
 - Clarify and enforce appropriate existing mechanisms to address time to completion for graduate students, including expectations for student progress, regular interactions with supervisor and supervisory committee
 - Consider including a representative of the Graduate Committee in meetings between students and supervisory committees to maximally harmonize expectations and act as a neutral third party in the event of issues
- Enrolment
 - More effective strategies could increase student outreach and recruitment beyond southern Ontario

2. Faculty/Research

The reviewers observed the following **strengths**:

- Research
 - Research powerhouse, improved even since previous strong review: “clearly amongst the top few such departments in North America and internationally; in many areas it is world leading” and on an upward trajectory
 - Faculty and student accomplishments and unsurpassed state-of-the-art infrastructure and facilities indicate that the program offers superb research training opportunities for graduate students amongst the top few such programs in the world
 - Evidence of innovative success through multi-institutional collaboration that support theme-based multi-disciplinary research in cancer, cardiovascular and neurological diseases
- Faculty
 - Programs have benefited from relationships with Institutes that make faculty renewal possible even at a time when peer institutions have restricted hiring

The reviewers identified the following **areas of concern**:

- Faculty:
 - Inconsistent engagement of faculty in program activities including graduate seminars continues from last review and creates “potentially toxic” environment for recruitment
 - While onboarding processes exist, there may be gaps in support networks for early career faculty, who were unclear what supports were available through the Faculty of Medicine and/or U of T

The reviewers made the following **recommendations**:

- Consider reviewing delivery/format of seminar series, retreats, etc. to broaden faculty participation by minimizing deterrents such as conflicts with grant deadlines
- Promote participation by explicitly requesting each faculty member to attend a minimum of two graduate seminars per year
- Ensure that early career investigators have access to career development programs within the Research Institutes/Hospitals and the Faculty of Medicine/U of T as well as the mentorship of their colleagues on an ongoing basis

3. Administration

The reviewers observed the following **strengths**:

- Relationships
 - Strengthened commitment of the Faculty of Medicine to MBP and vice versa, and validation of MBP's mission, reflected in Letter of Understanding that defines MBP
 - A strong sense of pride in the accomplishments of MBP as well as mutual respect amongst faculty, staff and students for each other's contributions within the program
 - Respected by cognate departments in the Faculty of Medicine and valued by research institutes
- Organizational and financial structure
 - Relationships with research institutes that invest in scientists and infrastructure allow MBP to translate modest investments from the Faculty of Medicine and U of T (for the Chair and 2 Vice Chairs' salaries and administrative activities of the graduate programs) into a world-class research enterprise with a flourishing graduate program
 - Expanded and renewed executive committee is engaged in the program's mission; ensures representation from across institutes, research themes and career stages; and enhances alignment and collaboration between MBP and institutes, including around recruitment
 - Dedicated and highly qualified administrative staff
- Planning/vision
 - "Strong and effective leadership of Dr. Burns"
 - Academic plan has appropriately focused on graduate program enhancement

The reviewers identified the following **areas of concern**:

- Organizational and financial structure

- Perception that resources allocated for support of graduate students were re-claimed by the Faculty of Medicine to address budget shortfall
- Planning/Vision
 - Internal communications gaps, e.g., communication about timelines for implementing program changes
 - Perceived lack of identity as a traditional academic department with links to an undergraduate program, and outwardly identifiable brand in relation to the research institutes may affect engagement and recruitment

The reviewers made the following **recommendations**:

- Relationships
 - The Chair, Vice- Chairs and Executive Committee should continue to remain active in promoting alignment between MBP and the Research Institutes
- Organizational and financial structure
 - Protect the budget allocated to the program from any further cuts
- Planning/vision
 - MBP should consider its internal and external communication strategies, including enhanced support – e.g., investments in a staff member with expertise in modern communications strategies, technology – to further raise MPH’s brand and profile to support outreach and recruitment opportunities, and to support internal communications to enhance engagement.
 - While CAMPEP accreditation currently appears to offer little advantage to MBP, continue to monitor the situation in case a path to CAMPEP accredited residency becomes useful in the future.



UNIVERSITY OF TORONTO
FACULTY OF MEDICINE

L. Trevor Young, MD PhD FRCPC

Dean

Vice Provost, Relations with Health Care Institutions

February 21, 2017

Prof. Sioban Nelson
Vice-Provost, Academic Programs
University of Toronto
Simcoe Hall
27 King's College Circle, Room 225
Toronto, ON M5S 1A1

Dear Professor Nelson,

Re: Response to External Review – Department of Medical Biophysics (MSc, PhD)

On behalf of the Faculty of Medicine, University of Toronto, I would like to thank the three external reviewers: Professor Paul DeLuca - Department of Medical Physics, University of Wisconsin, Madison; Professor David Litchfield - Department of Biochemistry, Western University; and Professor Bruce Pike - Department of Radiology, University of Calgary for their thorough and in depth review and for their excellent report. I would also like to thank the administrative staff of the Department of Medical Biophysics and all those who contributed to the preparation of the comprehensive self-study. I also thank the many faculty members and students who met with the external reviewers; your input was invaluable for this review. The Faculty of Medicine greatly appreciates the time and effort of the reviewers in providing a written report that is comprehensive and thoughtful.

I will respond the specific points raised by the reviewers which you have asked me to address:

I. Curriculum and Program Delivery

The reviewers recommended alignment of courses and other program elements with well-defined learning outcomes and degree-level expectations to ensure that the training of each student does achieve the desired expectations; they also encouraged better alignment of MBP offerings with complementary graduate programs to take advantage of synergies.

Response:

By aligning the modular structure of our curriculum with that of Molecular Genetics and Biochemistry - two departments with whom MBP currently competes for graduate students – it will eventually become possible to implement a joint entrance curriculum and rotation program. The three units are not ready yet: Biochemistry has not yet implemented rotations. We envisage that in the future a student will enter the program without committing to one of our three departments and decide on a laboratory (and therefore PI and department) after laboratory rotations. MBP's highly translational program in a clinical setting contrasts, for example, with the fundamental structural biology offered by Biochemistry: students will have a chance to make a more informed choice once they have entered such a joint program. The leadership of all three departments believes that a joint program - today it would total

about 500 graduate students - would present a formidable recruiting force in Canadian biomedicine that would replace the somewhat fragmented options offered to the current prospective graduate student of biomedical research in Toronto.

II. Students

1. The reviewers suggested ways for the department to ensure appropriate time-to-completion; they also encouraged the department to address any gaps in graduate student supervision, and to consider ways to better support students in these processes throughout their program.

Response:

While the reviewers note that time to degree completion is currently comparable to that of other biomedical programs across North America, reducing it nonetheless persists as one of the major challenges to our program. The reviewers recommend closer oversight of the supervisory committee for degree progress. The Department has already increased the frequency of committee meetings after PhD year 4, and are considering formalizing a 'plan to completion' meeting as a program requirement. Account may have to be made of the increasing technical complexity of biomedical research, the inflating standards for high impact publication and, in many fields, the increasing time required to produce such a publication. The Department is in support of the recommendation for improved mentorship of new faculty which may help address this problem.

2. The reviewers encouraged efforts to enhance student outreach and recruitment beyond southern Ontario.

Response:

The Department is committed to reach further afield for highly qualified students, rather than lower the academic bar for admission to its graduate program. Medical Biophysics is widely recognized in the global research community, but still unknown to many undergraduate students, even in Toronto. This defines the remit for a new external communications office, with whom the Department will develop a five-year strategy to build the MBP 'brand' to reach highly qualified Undergraduates across Canada and internationally.

III. Relationships

The reviewers observed a number of opportunities for improving mentoring and relationships across the department, to ensure onboarding of faculty employed by the hospitals, increased participation in MBP activities, and to strengthen collaborations across multiple physical sites.

Response:

The reviewers highlight the increasingly challenging environment for early career investigators, who face fierce competition for funding and what can seem like relentless review of their productivity from both their institute employers and the University. The most effective solution might not be to reproduce campus support services, but negotiate to extend them to this important group of 'status-only' faculty. The Department will continue to work closely with faculty to improve mentoring and relationships across the Department. Current support from the Institute leadership is strong, and we are confident that this will be reflected in an improved overall faculty engagement in the academic mission during the next five years.

IV. Resources and Planning

Reviewers encouraged revisiting MBP's overall communications strategies both internally and beyond the program to support enhanced outreach and recruitment.

Response:

An important recommendation of this review is to improve the Department's communication, both internal and external. In their respective self-studies, both students and faculty report that internal communication needs improvement, and the Department knows that this is correct. Internal communication seems on the face of it to be the simpler problem, yet the reviewers identify correctly both that the MBP office is working at its limit, and that appropriate use of modern media probably requires a skillset not found among its current staff. The Department agrees that a new communication office for MBP needs to be established and that this must come with a new dedicated hire. I concur that this is a priority and will work with the Department to determine appropriate resources.

Sincerely,



Trevor Young

cc. Allan Kaplan, Vice Dean, Graduate & Academic Affairs, Faculty of Medicine
Daniella Mallinick, Director, Academic Programs, Planning and Quality Assurance
Cora McCloy, Acting Coordinator, Academic Planning and Reviews
Anastasia Meletopoulos, Academic Affairs Specialist, Office of the Dean

APPENDIX I

Externally commissioned reviews of academic programs completed since the last report to AP&P

Additional reviews of programs are conducted by organizations external to the University most commonly for accreditation purposes. These reviews form part of collegial self-regulatory systems to ensure that mutually agreed-upon threshold standards of quality are maintained in new and existing programs. Such reviews may serve different purposes than those commissioned by the University. A summary listing of these reviews is presented below.

These reviews are reported semi-annually to AP&P as an appendix to the compendium of external reviews.

Unit	Program(s)	Accrediting Agency	Status
OISE	Master of Teaching, M.T	Ontario College of Teachers	Accreditation renewed until November 29, 2023.
OISE	Master of Arts, M.A., Child Study and Education	Ontario College of Teachers	Accreditation renewed until November 29, 2023.
OISE	PhD degree program in Counselling and Clinical Psychology. Field: Clinical and Counselling Psychology	Canadian Psychological Association	Accreditation renewed until November 2022