Cyclical Review: Report Template

As Commissioning Officer, I confirm that:

- ✓ The review report addresses all elements of the terms of reference, which reflect the requirements outlined in the University of Toronto Quality Assurance Process (UTQAP), including the program evaluation criteria
- ✓ I have brought to the attention of the reviewers any clear factual errors in the report and the reviewers have corrected these.

Commissioning Officer*: Report Accepted as Final on Sept 27, 2022

Prof. Susan McCahan

Vice-Provost, Academic Programs

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Reviewers are asked to provide an Appraisal Report that:

Identifies and commends the program's notably strong and creative attributes;

Describes the program's respective strengths, areas for improvement and opportunities for enhancement;

Recommends specific steps to be taken to improve the program, distinguishing between those the program can itself take and those that require external action;

Recognizes the institution's autonomy to determine priorities for funding, space and faculty allocation;

Respects the confidentiality required for all aspects of the review process; and

Addresses all elements of the terms of reference, which reflect the requirements outlined in the *University of Toronto Quality Assurance Process* (UTQAP), including the program evaluation criteria.

Division/unit under review OR	Please select one of these options and delete the
Division/unit in which	other; i.e., if only the program is being reviewed
program(s) is housed:	and not the division/unit, then use the
	"Division/unit in which program(s) is housed"
Program(s) under review:	Faculty of Dentistry
Commissioning officer:	Vice President and Provost
Date of scheduled review:	February 28 - March 4, 2022

^{*}The Dean is normally the Commissioning Officer for reviews of programs and units in departmentalized divisions; the Vice-Provost, Academic Programs is the Commissioning Officer for reviews of Faculties/Divisions with or without their programs.

Reviewers' names and	Cathia Bergeron, DMD, MSc - Faculté de médecine
affiliations:	dentaire, Université Laval
	Mark S. Wolff, DDS, PhD – The University of
	Pennsylvania School of Dental Medicine
	Elsbeth Kalenderian, DDS, MPH, PhD - Academic
	Centre for Dentistry Amsterdam

1 Review Summary

Strengths

- Great school with exceptional faculty.
- Faculty performs exceptionally well considering the conditions and the restrictions it has to face (strict regulatory requirements, financial constraints).
- The Faculty manages to do this based on the quality of their faculty members and their students, which should be strongly recognized.
- Great and extremely significant direct service to the community. A safety-net provider to patients with access to care challenges.
- Good pool of student applicants to choose from.
- The Faculty is the only one in Canada offering all 10 dental specialty programs.
- Excellent scientists capable of conducting strong research programs.
- Graduate students perceive that they are supervised by high quality mentors.
- Complete renovation of research infrastructures.
- Research and Business Development Manager brings industry partners and develops translational potential.
- Well established collaborations with other Faculties (pain research, BME, joint appointments). Dentistry is valued by other faculties, notably the Dalla Lana School of Public Health.
- Great mentorship for tenure stream faculty.
- Long standing summer research program.
- The Director of Student Life provides excellent services and is very accessible.
- Well regarded academic programs by other Deans within the University of Toronto.
- In general, the morale of students, faculty and staff is good.
- Relationships with professional organizations and the Ontario regulatory body are very good.
- The alumni association feels very well supported by the Faculty; the Dean is successful at fostering a sense of community.
- Good vision from the Director of Advancement.
- Potential for the Continuing Dental Education program to grow.

Challenges, Areas for improvement & Recommendations

- The value of the service to the community should be promoted more at the University level, the government level, and even to the general population.
- The Faculty had to face extreme challenges in the past 2 years to continue to
 operate despite severe covid restrictions. An expensive new clinic had to be set
 up without delay to allow students to pursue clinical activities essential to their
 program.
- Resources will be needed in the near future for multiple initiatives: clinic
 infrastructure renovation, shift to a digital curriculum (technology), initiatives to
 support EDI and mental wellness.
- Clinical care is student centered and should be moved to a patient centered model. Need to have better alignment between good operations and good education. The Director of Clinics has an overwhelming task and will need to be supported more to conduct this.
- Lack of integration of digital and other technologies (CAD-CAM, digital treatment planning in orthodontics and restorative, etc.). Development of a digital curriculum will need to be prioritized.
- Role and leadership of the UGED committee needs to be reinforced; develop a
 program vision for excellence in education (not just requirements to graduate
 dentists); Create occasions (structured platform) to share curriculum issues to
 foster a culture of excellence and cohesion in curriculum.
- Multiple part-time instructors responsible for clinical evaluation. Need for better and more structured calibration.
- Very minimal interaction between programs. Need to develop interdisciplinary work to enrich each program.
- Basic science and clinical research are too disconnected.
- Better integration between research and undergraduate/graduate programs is needed.
- A vision for clinical research should be developed. The idea of having dedicated space for clinical research should be explored.
- The mentorship program is perceived very positively by tenure stream faculty. It should be expanded to the teaching stream faculty.
- Develop strategies to expand international partnerships with other universities.
- Consider giving more help and resources to support the mission of the Director of Student Life.
- Consider providing proximity resources to support students regarding mental wellness; institutional resources seem too distant and not easily accessible.
- EDI initiatives need to move towards an action plan to really implement the principles in the Faculty culture. A strong EDI statement and a code of conduct specific to the Faculty of Dentistry should be developed.
- Adequately financing the clinic and preclinic modernization seems extremely
 difficult to achieve if the Faculty of Dentistry is left on its own. The University and
 the government need to recognize the social value of the U of T dental clinics
 and support the renovation.

Cyclical Review: Faculty of Dentistry

- Explore the possibility of increasing the number of graduate students, especially in profitable programs (orthodontics for instance).
- Follow-up on external report to develop strategies to improve the financial situation.

2 Program Evaluation Criteria

Undergraduate Program: Doctor of Dental Surgery (DDS)

Objectives

The DDS program offers a great and extremely significant direct service to the community in line with the mission of the university. The program functions as a large and important safety-net provider to patients with access-to-care challenges. We believe that the value of the service to the community should be further promoted more at the University level, the government level, and even to the general population.

The DDS program requirements and learning outcomes are clear, appropriate, and aligned with the DDS degree level expectations.

Admission requirements

The school has an excellent pool of applicants to choose from and admission requirements are appropriate for the learning outcomes established for completion of the program.

Curriculum and program delivery

The curriculum reflected in the current state of the DDS-programs reveals maldistribution of clinical experiences and a paucity of cultural competency training; students have difficulties completing a comprehensive treatment plan and they receive no training in the newest technologies.

The curriculum is sorely in need of a digital dentistry component (CADCAM, oral scanners, etc.) *now*, as the profession has firmly embraced the use of digital technology. The DDS program suffers from a chronic shortage of endodontic patients, which in part can be addressed through creative digital dentistry approaches such as Simodent. Cultural competency is also not embedded in the current curriculum.

There is no system in place for DDS students to assure they have enough patients to graduate. There is a complicated system in place for students late in their last year to try to find patients when it becomes clear they are at risk of not graduating due to lack of clinical experience.

There seems little evidence of innovation or creativity in the content and/or delivery of the DDS program relative to other such programs.

Importantly, the curriculum committee (UGED Committee) is urged to create a vision of excellence for the curriculum and enforce their role and provide leadership as the overseeing body of curriculum implementation. It is

essential that they step up as the facilitating and connecting body between the relevant divisional heads to create clarity and unity.

There are opportunities for student learning beyond the classroom through externships.

There are excellent opportunities for student research experiences through the fabulous research outfit at the school.

Assessment of learning

The competency assessment system for the DDS program is not fully developed for assessing clinical skills in the last two years of the program. DDS students' clinical skills are daily assessed by individual instructors without the use of a standardized system. Instructor calibration in the preclinic can be improved. Here students with "picky" instructors have harder times passing competencies. Overall, there is no structured calibration for the faculty towards the (pre) clinical curriculum. Oral exams, however, are performed by a panel of three faculty members with good calibration among the faculty members. Student representatives, who we interviewed, noted that they are not quite comfortable with the notion that they will be fully competent beginning dentists upon graduation.

Quality indicators

The DDS program is a strong competitor with respect to other international programs.

The pool of applicants is outstanding as are the admitted students. However, if digital dentistry does not get implemented soon this may change rapidly. Student completion rates and time to completion is good, especially given the severe governmental COVID restrictions.

As noted, students do feel somewhat short of experiences in dentistry at time of graduation. They cannot wait to get out and are not interested in becoming alumni. They feel lost and not listened to. They believe that the school is still behind on EDI matters. In general, there are just many hurdles to get through to complete clinical cases.

There is no DDS program-level mental health support, and the DDS program does not provide downstream pro-active support. Students feel that faculty are not responsive to their complaints.

The dental school has an excellent fund development officer and seems to be doing an outstanding job with the capital campaign.

Additional program criteria

Monitoring and management of students' time to completion in relation to the program's defined length and program requirements remains challenging as some students have trouble getting enough patients to graduate with the required clinical competencies.

Quality and availability of student supervision is satisfactory. Faculty are dedicated however they need better calibration towards the (pre)clinical curriculum.

Faculty commitment to student mentoring is adequate.

Student quality is superb.

The DDS program has access to an outstanding research structure and faculty that will ensure the intellectual quality of the student experience. However, a structured program will facilitate the integration of more DDS students into the labs as part of their research curriculum.

There are sufficient and high-quality courses for the DDS graduates offered assuring that these students will be able to meet all course requirements. Again, there is an urgent need to add digital dentistry courses.

A Quality Improvement committee is not in place and can greatly help with closing the loop on patient errors, quality assurance, etc.

Quality enhancement

Mentorship for faculty has improved under the Dean. The Faculty of Medicine is very integrated with research faculty at the school. Areas for improvement include integration of basic science and clinical science; initiatives and infrastructure to manage violence, bias, etc. and to further develop the diversity part of the cultural competency program.

Post-Graduate Dental Specialty Programs:

Objectives

The post-graduate programs equally offer a badly needed and extremely significant direct service to the community in line with the mission of the university. The graduate programs function as a large and important safetynet provider to patients with access-to-care challenges. We believe that the value of the service to the community should be further promoted at the University level, the regional and national government level, and even to the general population.

Program requirements and learning outcomes for the post-graduate programs are clear, appropriate, and aligned with the relevant degree level expectations.

The school offers all 10 dental specialties. There is very minimal interaction between these graduate programs and there is a need to develop interdisciplinary work to enrich each program.

Admission requirements

The school has an outstanding pool of applicants to choose from and admission requirements are appropriate for the learning outcomes established for completion of all its post-graduate programs.

Curriculum and program delivery

The curriculum reflected in the current state of for the prosthodontic and orthodontic specialty programs similarly as the DDS program reveal maldistribution of clinical experiences and a paucity of cultural competency training; students have difficulties completing a comprehensive treatment

plan and they receive no training in the newest technologies. The post-graduate is just as the DDS program sorely in need of a digital dentistry components (CADCAM, oral scanners, etc.) *now*, as the dental profession has firmly embraced the use of digital technology. Future prosthodontic and periodontic applicants might start looking at other programs rather than U of T.

The prosthodontics program is run as a private practice, i.e., a referral model with little collaboration between the program and other post graduate programs; this does not stimulate interprofessional collaboration. The prosthodontics program suffers from a very long patient waiting list, which needs to be addressed as it is not very patient centric. The endodontic program has the opposite problem and may be suffering from a lack of patients, for which digital dentistry could be part of a solution.

Assessment of learning

The post-graduate programs do not use a standardized competency program. One program is evaluating the use of the EPA system – we suggest considering implementing this throughout the organization. Clinical care is evaluated by individual clinical instructors without a clear rubric which creates the potential for bias, as well as uncertainty among the students. Quality indicators

Assessment of post-graduate program against international comparators. The quality of applicants and admitted students is superb. Enrollment is steady.

Student completion rates and time to completion is good.

Clinical postgraduate students do not feel they have a good educational experience. They do not believe they are receiving "value". Issues include lack of interdisciplinary planning, no true time off, not enough patients for endodontics program, students feeling lost, and the prosthodontics program students do not get to treat patients from beginning to end (they only have transfer patients).

Advising/mentoring for PhD students is good.

Additional graduate program criteria

Monitoring and management of students' time to completion in relation to the program's defined length and program requirements is adequate.

Quality and availability of post-graduate student supervision is satisfactory. Faculty are dedicated.

Faculty commitment to student mentoring is adequate.

Student quality is superb.

There are sufficient and high-quality post-graduate-level courses offered assuring that students will be able to meet all course requirements. Again, there is an urgent need to add digital dentistry courses.

A Quality Improvement committee is not in place and could greatly help with closing the loop on patient errors, quality assurance, etc. We suggest one QI

committee for both DDS and postgraduate programs to encourage learning from each other and across systems.

Quality enhancement

Mentorship for faculty has improved under the Dean. The Faculty of Medicine is very integrated with research faculty at the school. Areas for improvement include integration of basic science and clinical science; initiatives and infrastructure to manage violence, bias, etc. and to further develop the diversity part of the cultural competency program.

Graduate Programs: Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.) in Dentistry

Objectives

The PhD program has the use of outstanding research facilities. Students feel well mentored. There is however a clear lack of clinical research. There is an outstanding interprofessional pain program, which might benefit from greater exposure within the University and beyond.

Admission requirements

Admission requirements for PhD and MSc students are well formulated and appropriate for the learning outcomes established for completion of the PhD and MSc programs. The school has an outstanding pool of applicants to choose from.

Curriculum and program delivery

The research curriculum is appropriate for the level of the programs; however, the clinical components of the curriculum of the MSc programs reveal maldistribution of clinical experiences and a paucity of cultural competency training as mentioned earlier; these students have difficulties completing a comprehensive treatment plan and they receive no training in the newest technologies.

Assessment of learning

Assessment of the PhD and MSc programs is appropriate.

Quality indicators

QI indicators for the research programs are appropriate.

3 Clinical Service

Scope of activities

The Faculty of Dentistry at the University of Toronto treats a wide variety of patients in the city of Toronto. The Faculty of Dentistry is Canada's largest dental school. The 266-chair facility's catchment area includes the Greater Toronto Area and beyond into various regions of Southern Ontario. The Faculty treats 15,000 patients yearly, encompassing more than 90,000 appointments per year in the 10 undergraduate and graduate clinics located throughout the building. The clinic facility was designed and initially constructed in the late 1950s and has had limited renovation to this date. An additional 41 chairs, located in the Faculty's off-site clinic located at 777 Bay Street, opened in September 2021. This clinic increased student access to fully enclosed operatories, currently required by the provincial regulatory body (RCDSO) for aerosol generating procedures, such as those created when operating a dental handpiece. This new facility, developed during the COVID-19 pandemic, will add a million dollars to Faculty's operating budget for rent alone as well as additional operating expenses. It will provide additional clinic space during renovation of the older facilities. Updates to central sterilization and planned updates to the preclinical facilities are already underway.

The Faculty of Dentistry at the University of Toronto is the only school in Canada to provide graduate education in all ten dental specialties. In addition, the program has approximately 420 doctor of dental surgery students and 24 in an International Dentist Advanced Placement Program.

The program provides high-quality care for a variety of patients, particularly those patients who are traditionally underserved. The clinical environment is a teaching and research environment and focuses on the student experience not the patient experience. Every program functions with slight isolation from the other and there is an opportunity, as discussed in the 2021 Dentistry Advisory Group Report (Valachovic), to make this a more patient-centered model of clinical care.

It is important to recognize that the Faculty of Dentistry treats unique subsets of the population that are frequently considered vulnerable and that are predominately:

- female
- older Ontarians
- recent immigrants or refugees
- lower-income Ontarians
- adults without dental coverage

• Contribution to teaching mission

As described in the self-study, "Dentistry is unique in the University setting in that it contains a technical program within an academic institution. The clinical program exists to train students to be general practitioners and dental specialists." This puts the Faculty of Dentistry in a unique position, within the University of Toronto, of running a clinic facility delivering patient care in addition to an education facility. This creates a unique financial burden with the University setting.

Contribution to research mission

As described in the self-study, "The Faculty clinics are available to all disciplines to support all forms of research endeavours. Implant studies and periodontology are often areas of clinical research. In order to conduct a study, the principal investigator contacts the Director of Clinical Affairs, who prepares a contract for utilization of the clinical areas for support of the study. Funding for clinical research may be covered by a grant if the study is of sufficient magnitude, or internally through a defined budget if the study is relatively small. Most of clinical research is conducted by graduate students engaged in the various specialties. Some clinical research has been undertaken by undergraduate students engaged in research during the summer research period, but this utilization is significantly less common."

Comments/Recommendations:

- The Faculty worked extensively to develop dental care programming during COVID-19. They did this successfully and should be commended, despite much more significant restrictions than elsewhere in the world. There will be an ongoing need to expand the delivery of care shortly if the school is to thrive.
- The graduate program Directors appear to run good programs. All specialty programs are based on the number of enrollees. The number of patients is plentiful. They have an opportunity to expand. There are revenue streams in tuition.
- Pediatric dental care for patients is covered under the government plan, making
 recruitment of patients difficult at times. There appear to be more than adequate
 numbers of patients available though. The clinical program is run in the hospital
 and the Faculty does not capture this as clinical revenue and tuition within the
 school. It appears there is capacity, as described by the program, to expand this
 graduate program. Pediatric care is mainly restorative therapy and examinations this should be a substantial program.
- There is significant opportunity for real collaboration between graduate programs, both in shared didactic courses and in clinical facilities. We suggest that the design of graduate program facilities be re-thought as the school redesigns the clinical facility. The potential for all the specialties to practice collaboratively will improve patient centered outcomes and inter-collaborative practice. There is a need for a shared core curriculum and interdisciplinary treatment sessions. As currently designed each program seems independent.
- All programs are not in the digital age. The orthodontics graduate program has some digital footprint. DDS program students do not have any experience. The lack of a digital program will affect the quality of student recruits to the graduate programs. Most US programs are significantly more advanced than the U of T program at both the DDS and graduate level. The deficit in clinical digital education was part of the first recommendation made in the 2017 review and seems unimplemented.

- Students, PG and DDS, did not feel heard as they voiced concerns for education.
 Students complained of log jams in the treatment planning process, DDS students described a specialty treatment process that was often difficult to negotiate and resulted in cherry picking of care. Students complained of long waitlists for patient assignments, so many patients were no longer interested in receiving care by the time they were assigned.
- Prior reviews (the 2021 Dentistry Advisory Group Report (Valachovic) pointed out the students need to treat patients in a more patient-centered model. The model proposed by Valacovich is but one model that facilitates a patient-centered model.
- The diversity part of cultural competency program is not present. DDS students do not rotate in community programs.
- D4 students question whether they are graduating competent. They believe they are "checking off the box of things completed". Many students feel somewhat short of experiences in dentistry. The clinic facilities appear to have only 4 endodontic treatment rooms and only one x-ray unit available. The students commented that they need assistance treatment planning endodontic procedures but being unable to receive the necessary guidance.
- Discussions with faculty revealed a sense that there is no "vision" due to a lack of coordination, as there is no leader in the clinical area... "everyone reports to the Dean or Clinical dean... students often get contradicting education". "No one coordinating the education" ... "There is too much left to the course director".... There was concern that the curriculum committee is NOT doing a coordinated job. Overall, there was a concern that there is no drive for excellence. Discussion with the course directors revealed there was a UGED (undergraduate education) committee that does course review and is led by an Associate Dean. There is governance by the curriculum committee and the course directors cannot make major changes in content without prior discussion. There is a course director manual with specifics.
- The Associate Dean for Clinical Affairs is understaffed/over committed. He directs
 practice management, teaches ortho, off-site community clinics, clinic operations...
 audits charts (himself). He describes a student-centered program NOT a patient
 centered program! There is concern that patients may fall through the cracks. He
 does state that the patient pool is financially challenged. There does not appear to
 be a quality improvement program in place. There is no program to close the loop
 on clinical errors.
- Despite there being a clinical competency statement, no one could point to a competency system where clinical critical errors are evaluated, and students are retained until they understand and can demonstrate improved skills.

Unfortunately, 2016-17 Provostial UTQAP Review, Report of the review team for clinical operations at the University of Toronto Faculty of Dentistry and 2021 Dentistry Advisory Group Report pointed to issues with the clinical administration responsibilities, faculty calibration, patient-centered care, clinical facility condition and a culture of "top down" communication that required remediation. There has been minimal progress on many

of these issues. This requires immediate attention despite the financial difficulties being experienced by the school.

4 Faculty/Research

Scope, quality and relevance of faculty research activities.

The Faculty of Dentistry is recognized for its extensive contribution and major commitment to dental research. It is renowned for its innovation and interdisciplinary programs within the research communities, nationally and internationally. Research programs fall under seven very relevant broad themes: biomaterials and biomedical engineering, connective tissue and regenerative medicine, dental public health, education research, microbiology, oral pathology and cancer, pain, and neuroscience. In recognition of its research excellence, the Faculty was awarded the 2021 William J. Gies Award for Achievement – Academic Dental Institution from the American Dental Education Association ADEA Gies Foundation. In 2018, the Faculty completely renovated its research facilities, resulting in modernized open concept research laboratories, offices, and collaborative spaces.

Appropriateness of the level of activity relative to national and international comparators.

U of T Dentistry produces publications that demonstrate significant research impact both nationally and internationally. When compared with national peers, the Faculty of Dentistry at U of T ranks highest in both scholarly output and citation count. When compared with some leading U.S. peers, U of T ranks intermediate in both scholarly output and citation count. Among the U15 universities in Canada, the Thompson-Reuters data show that it ranks number one in publications and number one in citations in the field of Dentistry, Oral Surgery and Medicine. When compared with the public universities in the Association of American Universities (AAU), it ranks fifth in publications and seventh in citations.

Appropriateness of research activities for the undergraduate and graduate students in the Faculty.

The Faculty offers an undergraduate summer research program that is open to undergraduate students from all Canadian dental schools. Over the years, several undergraduate summer students have won prestigious awards, e.g., the IADR Unilever Hatton research awards in the junior category. To most students,

this program presents an opportunity to engage in research over a wide range of topics as a complement to their dental education. The Faculty also offers 2 different research-based graduate programs, one leading to traditional thesis-based M.Sc. or Ph.D. degrees for individuals with an interest in oral health research and the other leading to an M.Sc. or Ph.D. degree in conjunction with dental specialty training. Over the past 5 years, the Faculty has awarded 178 graduate degrees, 24 Ph.D. and 31 M.Sc. degrees in the traditional research stream, and 123 M.Sc. degrees for research in clinical specialty programs.

Faculty complement plan.

The Faculty of Dentistry recognizes the importance of continually strengthening its research and teaching missions with careful succession planning in the various fields. However, it faces significant budgetary challenges preventing any increase in overall FTE. A gradual reduction may even have to be considered if the budgetary situation does not improve. The Faculty complement plan will therefore have to be very carefully developed in order to maintain current strengths in research and teaching. For 2021-2022, there are 4 searches for full-time faculty, of which 2 are in the teaching stream and 2 are in the tenure stream. Long term, 3 searches are planned in clinical fields to replace past retirements. There is an ongoing challenge recruiting full-time academics in the clinical fields, a situation shared by most dental schools in North America.

Appropriateness and effectiveness of the academic unit's use of existing human resources. In making this assessment, reviewers must recognize the institution's autonomy in determining priorities for funding, space, and faculty allocation.

The Faculty has a good complement of academics with strengths in research and strengths in teaching. Junior faculty with excellent potential were recruited. It can rely on the great contribution of part-time Instructors, general dentists, or dental specialists, to teach in both the undergraduate and graduate programs. In order to more effectively address its teaching needs, the Faculty is in the process of increasing the proportion of teaching stream faculty. Professorial ranks and titles in the teaching stream were introduced in the last decade.

Strengths

- Excellent scientists capable of conducting strong research programs.
- Graduate students perceive that they are supervised by high quality mentors.
- Complete renovation of research infrastructures.

Cyclical Review: Faculty of Dentistry

- Officer of business development brings industry partners and develops translational potential.
- Well established collaborations with other Faculties (pain research, BME, joint appointments). Dentistry is valued by other faculties, notably the School of Public Health.
- Great mentorship for tenure stream faculty.
- Long standing summer research program.

Areas for improvement and Recommendations

- Basic science and clinical research are too disconnected.
- Better integration between research and undergraduate/graduate programs is needed.
- A vision for clinical research should be developed. The idea of having dedicated space for clinical research should be explored.
- The mentorship program is perceived very positively by tenure stream faculty. It should be expanded to the teaching stream faculty.

5 Relationships

Strength of the morale of faculty, students, and staff.

Faculty, staff, undergraduate and graduate students feel respected in the Faculty of Dentistry environment. Students are very pleased with the support they get from the Director of Student Life, who they qualify as very accessible. In general, the morale has been significantly affected by the pandemic. Many of the activities that contributed to developing a sense of belonging could not be pursued during the two past years, and many people felt more isolated. The morale of the Faculty of Dentistry community after 25 months of pandemic is certainly not a reflection of what it would be in normal circumstances. The Faculty strategic plan clearly identifies as a priority wellness initiative for students, faculty and staff.

Initiatives undertaken to enhance a sense of community in the program/unit.

The Faculty has supported extracurricular activities for students in the last few years, which resulted in an increased sense of engagement. Students are involved in several community outreach and leadership activities, such as mentorship programs. Students also participate in interprofessional seminars and workshops with other healthcare faculties where they develop skills in collaboration, teambuilding, and communication. There are also several student-led initiatives, such as the annual talent and entertainment show,

Dentantics, and student-run clubs. Orientation week is organized by second-year students who plan academic and social events to aid the new incoming class in their transition. The student government is also very dynamic and has organized fundraising events such as marathons, hockey tournaments, candy sales, and food drives. There have also been enriching Lunch & Learn events with guest speakers on topics including "mental health and dentistry". These seminars are highly attended by both students and staff, and foster a cooperative environment for learning and discussion. The wellness committee has continued its work on initiatives to improve the well-being of students and staff at the school, and over the last year a comprehensive Wellness plan was developed, along with an online Wellness Portal. Some of the associated wellness events include yoga classes, massage therapy, meditation, and mindfulness.

Scope and nature of relationships with cognate Faculties, academic departments, and units.

The Faculty of Dentistry is one of 7 Health Science Divisions at the University of Toronto and, as such, is part of the Council of Health Sciences. From 2015 to 2017, the dean of Dentistry was its Chair, following his 2 years of service as vice-chair. As part of this role, the Faculty is actively involved in Interprofessional Education. Its dean has been a member of the Centre for Interprofessional Education governance committee. The Faculty has relationships with several the University of Toronto affiliated teaching hospitals where students take part in clinical rotations. The Faculty of Dentistry is also part of 2 extra-departmental units. It is the lead Faculty in the University of Toronto Centre for the Study of Pain (UTCSP), collaborating with the Faculties of Pharmacy, Nursing, and Medicine. It is also one of 3 partners, along with the Faculty of Applied Science and Engineering and the Faculty of Medicine, of the University of Toronto's Institute of Biomedical Engineering (IBME).

Extent to which the division/unit has developed or sustained fruitful partnerships with other universities and organizations in order to foster research, creative professional activities and to deliver teaching programs.

When compared with national peer Faculties, U of T Faculty of Dentistry ranks low in the extent of national and international collaborations. When compared to several U.S. peer faculties, U of T Faculty of Dentistry ranks very low in the level of national collaborations and intermediate in the level of international collaborations. The relatively low number of national collaborations may be related to greater opportunities for impactful partnerships either within the university, hospital, and commercialization hubs in Toronto or internationally. The expansion of international

partnerships is one of the Faculty's priorities for future improvement. The research office has engaged in conversations with the Universities of Cardiff (Wales), Melbourne (Australia) and West China School of Stomatology (Chengdu, China) to form a four-party entity with the ultimate goal of facilitating student exchange, research collaborations and improvement of clinical practice.

Scope and nature of the division/unit's relationship with external government, academic and professional organizations.

The Faculty of Dentistry has strong relationships with professional organizations. Faculty members play key roles with groups that include the Association of Canadian Faculties of Dentistry (ACFD), the Royal College of Dental Surgeons of Ontario (RCDSO), the National Dental Examining Board of Canada (NDEB), the Royal College of Dentists of Canada (RCDC), and the Ontario Dental Association, among others. It is an affiliate member of the American Dental Education Association. Faculty members have also played major roles in research organizations like the Canadian Association for Dental Research (CADR) and the International Association of Dental Research (IADR). Of its past presidents, 4 have been from the Faculty, as well as a number of research section presidents, and 8 faculty members have won the IADR Distinguished Scientist Award.

Social impact of the division/unit in terms of outreach and impact locally and nationally.

The Faculty has community outreach programs at the municipal, provincial, and international levels. Offsite outreach programs serve a dual purpose: they provide care to populations that would otherwise have difficulty or inability to receive care, and they provide unique educational opportunities for students that would not be possible within the Faculty facility itself. On a different aspect, the Faculty of dentistry provides an important service for the dental community through its Continuing Dental Education programs. It connects with many of the over 8,000 alumni through the Advancement and Alumni Relations office. Another impactful initiative of the Faculty is to offer training to permit licensure in Canada for international dentists and dental specialists through its international dentist advanced placement program (IDAPP) and its dental specialty assessment and training program (DSATP).

Strengths

- The Director of Student Life provides excellent services and is very accessible.
- Well regarded academic program by other Deans within the University of Toronto.

Cyclical Review: Faculty of Dentistry

- In general, the morale of students, faculty and staff is good.
- Relationships with professional organizations and the Ontario regulatory body are very good.
- The alumni association feels very well supported by the Faculty; the Dean is successful at fostering a sense of community.

Areas for improvement and Recommendations

- Develop strategies to expand international partnerships with other universities.
- Consider giving more help and resources to support the mission of the Director of Student Life.
- Consider providing proximity resources to support students regarding mental wellness; institutional resources seem too distant and not easily accessible.
- EDI initiatives need to move towards an action plan to really implement the principles in the Faculty culture. A strong EDI statement and a code of conduct specific to the Faculty of Dentistry should be developed.

6 Organization and Financial Structure

The appropriateness and effectiveness of the division/unit's organizational and financial structure, and its use of existing human, physical and financial resources in delivering its program(s). In making this assessment, reviewers must recognize the institution's autonomy in determining priorities for funding, space, and faculty allocation.

As described in the self-study, "Dentistry is a single department Faculty within the University of Toronto. As such, it has representation on Academic Board, in the School of Graduate Studies, and on the Principals and Deans' committee. The academic and administrative leader is the dean, who reports to the Provost." In response to a 2011 external review, a new administrative structure was put in place in 2016.

The appropriateness with which resource allocation, including space and infrastructure support, has been managed.

As described in the self-study, The Faculty has been able to balance the annual budget every year for the last several years including the current 2021-22 fiscal year. Furthermore, with savings from temporarily unfilled academic and administrative positions as well as one-time savings from various projects, the Faculty has been able to accumulate funds for the operating fund reserve, some of which are allocated for capital projects.

Unfortunately, this trend will soon reverse, and the Faculty is projecting an annual budget deficit starting next fiscal year (2022-23) and beyond... the provincial government announced and implemented a 10% tuition cut for all post-secondary education programs for the 2019-20 academic year. Furthermore, no tuition increases have been allowed for the following two academic years - 2020-21 and 2021-22. Future restrictions on tuition are unknown at this point... The Faculty of Dentistry was disproportionally impacted by COVID-19 due to the inability to continue clinical education and operation in most of the current clinic facilities because of new regulatory guidelines regarding aerosol generating procedures and other restrictions."

Opportunities for new revenue generation.

As described in the self-study, some of the expected challenges with respect to budget for the next few years are:

- (1) projected annual deficit as mentioned earlier;
- (2) ever increasing cost for clinic operation, some of which are due to external factors such as new regulations for health and safety, new requirements for infection control, technology changes, or even US and Canadian currency differences as many clinic supplies and equipment are purchased from US manufacturers:
- (3) funding for renewal of pre-clinic lab and clinic facilities that are already in progress;
- (4) increasing cost to maintain the current aged clinic facilities until the completion of clinic renewal;
- (5) continuing uncertainties with impact of COVID-19 for clinic education and operation, and potentially unanticipated costs and revenue loss.

Comments/Recommendations:

The Faculty of Dentistry at University of Toronto has had significant financial challenges over the past decade. Tuition roll-backs and freezes combined with the significant financial challenges of the COVID-19 pandemic have unfortunately placed the finances of the Faculty in difficulty. On a positive note, as of April 2021, there is a total balance of \$7M. This is comprised of \$4M in the Faculty operating fund reserve and \$3M in the U of T Major Future Capital Project Reserve . These funds will help update a badly needed renovation of the pre-clinical laboratory. Unfortunately, the Faculty is faced with significant needs for facility and equipment updates at the same time as there is a need for human resource and programmatic expansion (like digital dentistry). The Dean took a positive action by increasing enrollment. But no one could anticipate that there would be a significant COVID expense to expand space.

On a very positive note, the fundraising/advancement team are working in the right direction. They are preparing to focus efforts on raising money for new building funds to update the clinical facility. This fundraising for capital projects is easier than raising funds for operating expenses. They seem to have a good handle on fundraising.

The fundraising/advancement team needs the assistance of program directors as the post-graduate alumni are the best funded for supporting the Faculty. It was a disappointment that the post-graduate leadership did not have data on alumni numbers and practice location. They need to expand fundraising outreach to alumni.

The fundraising/advancement team is launching a campaign for Scholarships and construction. The target is \$30M and already raised \$11M (though \$7M for research in access to care). Alumni and Corporations raise approximately \$2.5M/year but need \$4-5M/year over the next 10 years.

There is a need to increase the clinical revenue without increasing the expensive clinical overhead.

Post-graduate programs like Orthodontics generate positive revenue. There is an excess of applicants for the program and an excess of patients for the program. This may be an opportunity. Every graduate program should be evaluated with an eye for potential expansion to increase patient care and potential revenue.

There must be concerns about reducing/depleting the budgetary financial reserves which is a risky process. Consultation should be done with the University to determine potential funding avenues like mortgage loans to cover capital investments, governmental grants for patient care as well as other grants/foundation support for uncompensated care.

The Faculty has a very successful continuing education program that generates positive revenue. There is significant potential for expansion of the program.

The Faculty has faced significant financial challenges for more than a decade. They have a very active fundraising/advancement team. The Dean has already expanded the enrollment in the program to increase the bottom line. The research facilities have had a significant update that is both appreciated by the faculty and is supportive of the research mission. (Research faculty would like to see greater interaction with the clinical faculty. Part-time clinical faculty do not regularly have protected time for research/scholarship.) Tuition freezes challenge the ability to remain solvent. Suggestions such as increases in instrument and management fees may be an alternative. The leased space for COVID-19 now places an extra expense of \$1-1.5M/yr. The expenses associated with the capital projects required will need some extensive planning that was not presented to the committee. Finance must be considered the greatest threat to the Faculty's growth and long-term prosperity. The reorganization of the administrative structure needs to be re-evaluated with regards to the effectiveness of the clinical enterprise.

7 Long-Range Planning Challenges

Consistency with the University's Academic Plan.

The Faculty is an integral part of the University. The Faculty of Dentistry's administration and Faculty are integral parts of the University committees.

It appears that many single Department Faculty programs at University of Toronto suffer from budgetary challenges. The University needs to help with Government advocacy to pursue the possibility of increasing provincial clinical education funding and support for the clinical infrastructure renewal. Given the patient demographics, disproportionately made up of the working poor, the Faculty is a safety net provider for the disadvantaged population of the Greater Toronto Area.

Appropriateness of:

 Complement plan, including balance of tenure-stream and nontenure stream faculty;

The Faculty has a reasonable balance between tenure and teaching stream faculty. Full-time faculty have protected time for scholarship though some are program directors accounting for their time. The Faculty have mentoring plans for tenure track faculty but could add mentorship/faculty development for teaching stream and PT faculty.

Enrolment strategy;

The Faculty has a robust student enrollment management system and there are ample numbers of applicants for all programs.

Student financial aid;

The Faculty appears to manage student financial aid well. Students indicated that their needs are being well managed.

Development/fundraising initiatives;

The Faculty has a highly effective fundraising/advancement team led by a highly competent individual. There remains room for improvement in the areas of post-graduate alumni.

Management and leadership.

Dean Daniel Haas of the Faculty of Dentistry is in transition, so there is a leadership change in the near future. This will permit the next Dean the opportunity to evaluate the effectiveness of the Faculty's administrative and clinic affairs.

8 International Comparators

The University of Toronto School of Dentistry is the largest of Canada. It offers all 10 dental specialties and is highly regarded. It has a stellar reputation. The school has an outstanding research program and is able to attract significant research dollars, including from the NIH. It is ranked 38th on the QS World University Rankings by Subject 2021: Dentistry.