



DALHOUSIE UNIVERSITY

FACULTY OF MEDICINE

DALHOUSIE UNIVERSITY ADMISSIONS REVIEW COMMITTEE

Recommendations to the Dean, Faculty of Medicine August 25, 2016

Preamble:

The admissions process is the foundation of a medical school's ethos and values.

This review of the admissions process of the Faculty of Medicine at Dalhousie University was initiated by the Dean, Dr. David Anderson. Although Dalhousie continues to produce high quality medical graduates, the Dean seeks to ensure there is a robust admissions process bolstering the Faculty of Medicine's commitment to service, excellence and broad considerations of diversity.

Such an admissions process must answer the call of the Federal Truth and Reconciliation (TRC) Report. Among the many recommendations of the TRC Report addressing the state of Aboriginal health in Canada, the Committee takes particular note of the following recommendations:

- 23) We call upon all levels of government to:
 - i. Increase the number of Aboriginal professionals working in the health-care field.
 - ii. Ensure the retention of Aboriginal health-care providers in Aboriginal communities.
 - iii. Provide cultural competency training for all health-care professionals.

Moreover, the Committee on the Accreditation of Canadian Medical Schools' (CACMS) accreditation requirements link the admissions process to a faculty's social accountability:

"A medical school is committed to address the priority health concerns of the populations for which it has a responsibility to serve. The medical school's social accountability is articulated in its mission statement; fulfilled in its educational program through admissions, curricular content, types and locations of educational experiences; and evidenced by specific outcome measures."

The Committee respects and feels bound by Dalhousie University Faculty of Medicine's Social Accountability Statement. In particular, this review was conducted in contemplation of the four pillars of the statement:

- Equity
- Diversity, inclusion, and cultural responsiveness
- Community/stakeholder engagement and partnering
- Justice-fairness and sustainability

1.0 Terms of Reference: Review of Admissions to the Undergraduate Medical School, Dalhousie University Faculty of Medicine

Overall Mandate:

To recommend processes for admissions to the Faculty of Medicine that are fair, that meet the accreditation standards of CACMS, and that select an incoming class:

- a) with a high likelihood of successful completion of the curriculum; and
- b) that will meet high standards of practice and professionalism as physicians in service to the profession and our communities.

Specific Aims:

1. To examine whether the approach presently in use for admissions gives appropriate weight to academic achievement, community involvement, empathy, altruism, and other non-academic characteristics that might be predictive of excellence in medicine or medical practice, and make recommendations accordingly;
2. To identify sources of bias, if any, in the present admissions processes and make recommendations accordingly;
3. To enhance the diversity of the incoming class with particular emphasis on the gender, racial, cultural, and economic diversity, in keeping with the recommendations of the Truth and Reconciliation Report and in reflection of the diversity of our communities; and
4. To make recommendations on matters outside the process of admissions that might contribute to meeting the aims and mandate of this review.

Committee Membership:

- Expertise in Medicine
- Expertise in Law
- Medical student
- Expertise in diversity issues, recognizing that the term diversity considers racial, cultural, gender, and economic diversity
- Expertise in admissions processes
- A person currently involved in undergraduate medical education, familiar with the admissions process and the curriculum, who can provide advice on academic preparation for medical school, academic progress in medical school and speak to such matters as what enables success for students, including but not limited to those from under-represented communities.
- A physician practising in the Maritimes who is from an under-represented community in the Maritimes
- Public representative

Scope:

This review will encompass the process for admissions to the Dalhousie Medical School undergraduate program.

Committee Processes:

- a) Review processes for admission to the undergraduate program at Dalhousie's Faculty of Medicine, including selection criteria and selection tools.
- b) Review the evidence on the methods of evaluating and selecting applications to medical school, with a view to identifying valid approaches to meet the mandate.
- c) Obtain feedback from appropriate stakeholders who are familiar with admissions processes, who provide supports to medical students, who understand the needs of delivering care to patients in our communities, and broadly from the Dalhousie medical community.
- d) Review admissions processes from other Canadian Medical Schools, including the findings of the Association of the Faculty of Medicines of Canada (AFMC) Summary Report: Medical School Admissions Process in Canada.
- e) Produce a report to the Dean of the Dalhousie Medical School with recommendations for improvement of the admissions processes.

Review Timeline:

The review will be performed in the spring of 2016 with final report to be completed by end of summer 2016.

2.0 Relevant Provisions of Accreditation Standards

Please refer to Appendix A: Standards 10 - Element Rating Table and Element Evaluation Forms (submitted to the Dalhousie Medical School Self Study Task Force in January 2016).

3.0 Review of Present Admissions Approach

Applications to Dalhousie's Faculty of Medicine open on July 1st. The first step of the application, involving basic demographics, closes on August 15th. It is administered by Dalhousie University.

The second step, which involves the completion of the online application form together with submission of transcripts and proof of residency, closes on September 2nd. The final step is the Multiple Mini-Interview (MMI), which take place over two days in November.

These other steps are managed by the Faculty of Medicine. The reasons for the division of responsibilities between Dalhousie University and the Faculty of Medicine are not known.

Admissions decisions are made in March, with all successful applicants being advised on the same date.

The Admissions Committee is composed of 20 people, 16 of whom are members of Dalhousie's Faculty of Medicine (three from New Brunswick) serving a single five year term. In addition, there are two medical students on a one year term, one Dalhousie faculty member not associated with the Faculty of Medicine, a lawyer (two years) and a member of the public.

The Terms of Reference for the Admissions Committee are public and on the website. There are no diversity requirements embedded in those Terms of Reference, which for ease of reference follow:

“7.0 ADMISSIONS COMMITTEE

7.1 ROLE

The purpose of the Admissions Committee is to select individuals for admission to the MD program in accordance with University and Faculty of Medicine regulations, and to make recommendations concerning admissions regulations to Faculty Council.

7.2 MEMBERSHIP

a) Elected Voting Members

- i) 16 members of Faculty, elected for a five-year term, which shall include three members of Faculty whose primary geographic appointments are in New Brunswick and who participate in the Dalhousie Medical Education Program in New Brunswick;
- ii) two students, nominated by the Dalhousie Medical Students’ Society and approved by the Assistant Dean, Admissions;
- iii) one member from a faculty other than the Faculty of Medicine; and
- iv) one member from outside the University who is not a member of the medical profession.

The above membership should include a psychiatrist, a family physician, a research scientist and a practicing member of the legal profession.

b) Term of Voting Members: *Voting members shall be appointed for five-year staggered terms.*

c) Ex Officio Voting Members

- i) *Chair of the Admissions Committee from the previous year.*

d) Ex Officio Non-Voting Members

- i) *Assistant Dean of Admissions;*
- ii) *Director of Admissions and Student Affairs; and*
- iii) *University Registrar, or designate.*

7.3 RESPONSIBILITIES

The Admissions Committee is responsible for the following:

- a) *Selecting applicants for admission to the MD program in accordance with University and Faculty of Medicine regulations;*
- b) *Making advance standing admissions determinations;*
- c) *Reviewing Faculty of Medicine admissions regulations and making recommendations for revisions to Faculty Council for approval; and*
- d) *undertaking other tasks related to its role as may be assigned by Faculty Council from time to time.*

7.4 REPORTING

The Admissions Committee shall report annually to Faculty Council and shall report the annual selection of Chair of the Admissions Committee to the Chair of Faculty Council and to the Dean.”

Applicant Streams:

There are six distinct applicant streams:

1. There are 63 positions available to Nova Scotian applicants. This number is determined by provincial funding. Nova Scotian applicants compete against Nova Scotian applicants.
2. There are 30 positions available to New Brunswick applicants, again based on provincial funding. New Brunswick applicants compete against New Brunswick applicants.
3. There are six positions for PEI applicants. PEI applicants compete against PEI applicants.

For the purposes of candidacy in streams 1-3, residency in a province is defined by a policy that essentially requires two years of continuous residency in the province of eligibility prior to the start of medical school.

4. There are nine positions available to non-Maritime candidates.
5. There are unlimited positions for qualifying African-Canadian candidates from the Maritimes.
6. There are unlimited positions for qualifying Aboriginal candidates from the Maritimes.

For the purposes of determining inclusion for streams 5 and 6, the admissions process has employed various approaches. Most recently, applicants submitted an essay self-identifying their connection to the community. The Committee understands that the process for placing candidates in either stream is under review.

Scoring:

For all streams, there are thresholds for both GPA and MCAT scores: 3.3 and 499 respectively. Applications which do not meet these minimums are summarily dismissed. These thresholds are made known on the website and the application form, but applications below these levels remain common.

Positions are available for all applicants in stream 5 and 6 who meet the minimum thresholds for each of the scoring components.

A total of 15 points is available for GPA, with scores stretched through a scale from 8 (for GPA 3.3) to 15 (4.0 and above). Similarly, there are 10 points allotted for MCAT performance, with a range from 6 to 10 points awarded for candidates exceeding the minimum threshold.

A total of 35 points are available based on materials submitted on the application form. The personal essay is worth 10 possible points. A maximum of 20 points is available on assessment of 4 domains of non-academic activity, with five points available for each of employment history, volunteerism, engagement with medicine, and extracurricular activities. In addition, each evaluator can award a maximum of five discretionary points to any application.

The materials submitted in the application form, specifically the essay and non-academic activities report, are collectively referred to as the “supplementals”. They are marked on a non-

nominal basis, with each application scored by two evaluators, according to the scoring rubric that is reviewed and approved by the Admissions Committee.

Files are systematically reviewed the Admissions Committee with attention to evidence of non-academic attributes such as empathy, ethical decision making and altruism.

All candidates who meet the GPA and MCAT minimums are invited to participate in the MMI, with the exception of non-Maritime applicants where a higher threshold is set. The scoring of the supplemental plays no part in this – many of the supplementals are actually scored after the MMI's take place. The minimum score required for a successful applicant on the MMI is 24.

The scaled up scores for GPA and MCAT are added to the raw scores for MMI and supplemental (including any discretionary points). The individual component scores are then z-scored (thus distributing them to a normal distribution) and grossed. The top scores in each of the streams are awarded positions. A wait list for each stream is generated. In exceptional circumstances, acceptance can be deferred.

4.0 Discussion

The Committee has concerns with aspects of the Admissions Committee's composition, Terms of Reference and procedures.

As an overriding concern, the Committee is not convinced that an Admissions Committee, itself devoid of established criteria for diversity, can reliably select an appropriately diverse incoming class. Moreover, given that the ultimate goal includes service to our communities, the Committee questions whether one public member on an Admissions Committee of 20 adequately represents the voices of our public and communities.

The Committee respects that applications are considered non-nominally but is not convinced that this treatment of applications effectively eliminates bias, a theme that will be discussed in more depth with respect to scoring.

The Committee is of the view that a formal process to screen for and declare conflicts of interest by members of the Admissions Committee is required. The Maritimes are small, the medical community is small, and the children of physicians are often drawn to follow their parents into medicine. The same would apply to children of professionals connected to health care as a whole. As such, the potential for conflicts of interest is high, particularly if the definition of conflict extends to include neighbours, friends, former students or those for whom a reference has been provided.

A more rigorous approach to conflicts of interest is required for reasons of fairness and to address perceptions of unfairness. There remains the perception that medicine is a profession for the privileged. The Faculty of Medicine struggles to attract applications with the same degree of diversity as our communities. The Committee speculates that potential candidates from diverse backgrounds might not apply because of an apprehension of bias against them within the admissions process.

The Committee recognizes that a minimum threshold for academic achievement and cognitive ability, as evidenced by GPA and MCAT scores, is a reasonable first filter for applicants to medicine. The Committee accepts the broad evidence demonstrating the MCAT (in conjunction

with GPA) as predictive of success in the LMCC Parts 1 and 2, exams that are pre-requisites for medical licensure.

In short, the Committee sees value in the MCAT and GPA, recognizing that neither is a perfect measure. With respect to reliance on GPA, the Committee is troubled that all GPA's are accepted at face value, with no accounting for the difficulty of the program studied or the university. The Committee accepts that GPA, particularly of a full course load, reflects a candidate's willingness and ability to meet the challenges of a full academic workload, an important consideration for a candidate.

The Committee is of the view that, both the MCAT and the GPA should be used for screening and not selective purposes.¹ The Committee favours the approach that thresholds for each be set, with no scaling of scores above the thresholds. Only applications that meet the thresholds will be considered.

Exceptions might only be made in rare circumstances. The Admissions Committee might, for example, consider accepting a letter of support from a thesis advisor (in lieu of a dated GPA) for the PhD student long removed from undergraduate studies but still involved in full time academia. Given the concerns that MCAT and GPA might discriminate against Aboriginals in particular, the Admissions Committee might consider some flexibility where Aboriginal applicants are close to the thresholds.

At present, extremely high scores are required for admission. Candidates who barely meet the threshold for GPA or MCAT are unlikely to succeed. In essence, GPA and MCAT, although only worth 25 points maximum, powerfully influence selection – too powerfully in the view of the Committee. Whereas the Committee is prepared to accept that high academic achievement may well correlate with excellence in non-cognitive domains, the connection between extremely high GPA and MCAT scores and admissions success is undeniable.

The worry is that the present process effectively places too much value on academic excellence. With that said, the Committee recognizes that room must be maintained in medicine for the candidate drawn to and gifted in pure academics.

The emphasis on GPA and MCAT scores (beyond that they are imperfect markers of cognitive power), may limit diversity. Beyond the limitations and biases in the measures themselves, success as measured by GPA and MCAT might well be purchased via the burgeoning industry surrounding medical school applications². There is an enormous body of research into the question of why disadvantaged people score worse on standardized testing. For the purposes of this review, it suffices to acknowledge that emphasis on MCAT and GPA likely disadvantages the disadvantaged.

The feeling of the Committee is that the appetite for excellence that likely travels with extremely high academic achievement can be measured in other ways.

The Committee has broad concerns regarding the scoring of the supplemental aspect of the application. The foremost question is whether the supplemental is asking the right questions to identify candidates to best meet the aims and mandate of the admissions process. The second question is whether the scoring of the supplemental actually measures that which it intends to measure, in a way that is fair and unbiased.

¹ Association of Faculties of Medicine of Canada (AFMC) Key Stakeholder Summary Report Page 5 – 6 inclusive.

The non-cognitive domains measured on the supplemental are: extracurricular; volunteering; employment; and medical experience. We understand that the evaluators struggle to fairly account for the overlap of these spheres.

Moreover, the Committee is concerned that the spheres are predatory of each other: the Olympic athlete, singularly focused on a dream, would excel in the extracurricular, leaving little time for volunteering, employment, or involvement in medicine (let alone trying to keep up with GPA and MCAT preparation).

In the view of the Committee, an applicant from a privileged background, such as the child of physician parents, may be unduly advantaged in the supplementals. The advantages are many, not the least of which includes the ability to pay for concierge services that are now increasingly available for medical school applicants. These include tutors during undergraduate school, MCAT preparation courses, and medical school application consulting services². The benefits of this industry are inaccessible to underprivileged candidates.

In looking at the supplemental scoring, it would be far easier for such a candidate to accumulate an impressive exposure to medicine, particularly when compared to the candidate from a lower socio-economic background unconnected to medical professionals. The same candidate would have more time for volunteering and extracurricular activities than others required to work. On the assumption that like favours like (in-group bias), there is concern that the evaluators might unwittingly score applications higher when the experiences outlined by the candidate more closely align with their own.

The Committee has concerns with respect to the essay component of the supplemental. The privileged applicant will have more access to editors and professional sounding boards than others. Even more worrisome, there is frankly no way of knowing if the applicant actually wrote the essay. As such, the Committee has little confidence in the essay as being a reliable or valid instrument for measuring a candidate's worthiness.

The Committee is not convinced that the four non-cognitive domains are good proxies for matters that (in its view) should be measured, such as empathy, integrity, appetite for excellence and such other base ingredients required for success in medicine.

The candidate for medical school should be asked to address his or her experience in the domains that will be central to a life in medicine. The Committee sees guidance in the CanMEDS framework, which sets out a group of characteristics inherent to becoming a medical expert: professional; communicator; collaborator; scholar; manager; health advocate. Recognizing that these applicants are young, it may not be appropriate to ask for evidence of all these competencies. Further, it may be fair to ask candidates to speak to some of these competencies in addition to asking about areas beyond these competencies where they have explored a pursuit of excellence. In the view of the Committee, an appetite for excellence in any pursuit can be seen as a characteristic translatable to medicine.

There is no evidence in the admissions documents, terms of reference, or the training documents to comfort the Committee that the evaluation of applications is imbued with appropriate levels of cultural competence. For the admissions process to achieve its goal of

² Anthony Sanfilippo, Queen's University, School of Medicine, *The Troublesome Ethics of Entrepreneurship in Medical School Admissions* (January 25, 2016).

representative diversity, it will be necessary for all applications to be evaluated through a culturally competent lens. The value of the Aboriginal candidate who has been involved in traditional healing ceremonies, for example, must be fairly appreciated. In the view of the Committee, cultural competence of the entire admissions process requires representation from the African-Canadian and Aboriginal communities, together with appropriate training of all Committee members.

The Committee undertook this review conscious of recent cases in the public domain involving applicants accepted to Dalhousie's Medical School charged with serious crimes. These two young men are presumed innocent. Nevertheless, the publicity associated with these cases has cast a shadow for some on the admissions process. The question arising from the publicity is whether the admissions process takes adequate steps to screen out individuals inappropriate for a career in medicine.

The belief that a structured or semi-structured admissions personal interview conducted by an experienced and trained physician will identify unfit candidates is appealing to most, but unsupported by evidence or science. By way of extreme example, a high functioning psychopath is far more skilled at hiding red flags than an experienced interviewer is in uncovering them. Moreover, the usefulness and fairness of this admissions personal interview format has been questioned leading to the development of the Multiple Mini interview (MMI) and its wide adoption by Canadian medical schools

The Committee supports the use of the MMI, which it sees as a series of brief interviews, structured and purposeful, allowing for multiple independent evaluators to assess a candidate in structured scenarios. The MMI is increasingly the national standard for admissions interviews, with 12 Canadian faculties of medicine employing it in their admissions process. The Committee sees value in the approach adopted by the University of Toronto's Faculty of Medicine allowing evaluators to red flag applications for discussion with the admissions committee whenever concerns or unease are experienced by the evaluator in the course of an admissions interview.

Recommendations:

The Committee recommends:

1. That a minimum threshold for GPA and MCAT marks be set with no scaling of scores that exceed the threshold levels.
2. That the Terms of Reference and composition of the Admissions Committee be amended to mandatorily include representatives of the African-Canadian and Aboriginal communities and to reflect gender equity;
3. That the criteria for eligibility as an African-Canadian or Aboriginal candidate be determined by a process of ongoing collaboration with the African-Canadian and Aboriginal communities. The Committee saw no evidence that self-identification alone has been endorsed by either the African-Canadian or Aboriginal communities. The Committee specifically recommends that criteria for eligibility as an Aboriginal Candidate be developed in collaboration with the Aboriginal Health Sciences Advisory Committee;
4. That the Terms of Reference and composition of the Admissions Committee be amended to increase the number of public members to no less than three;

5. That the Admissions Committee consider developing a bespoke approach, perhaps through specific subcommittees, for the assessment of the applications of Aboriginal and African-Canadian candidates. This approach should involve the Aboriginal and African-Canadian representatives of the Admissions Committee;
6. That the Admissions Committee be required to incorporate training in Cultural Competence in its orientation of members;
7. That the Admissions Committee develop and implement a formal approach for the declaring and management of Conflicts of Interest for its members and all admissions evaluators;
8. That the evaluation of applications be done in consideration of the overall mandate of the admissions process. Scoring of each component of the application should be based on the extent to which the information supports the candidate's likelihood of:
 - a) successfully completing the curriculum;
 - b) meeting a high standard of practice;
 - c) meeting a high standard of professionalism; and
 - d) providing service to the profession and our communities.
9. That the essay component of the supplemental application be eliminated. If the Faculty of Medicine considers an essay to be necessary, the Committee recommends that candidates write an essay in a witnessed or invigilated setting;
10. That the four domains mandatorily evaluated on the supplemental, specifically volunteerism, employment, involvement in medicine and extra-curricular, be eliminated. In their place, the Committee recommends that candidates be offered to address any four of the following domains drawn from the CanMEDS framework:
 - Scholar
 - Professionalism
 - Health advocate
 - Collaborator
 - Communicator
 - Manager
11. That the Multiple Mini Interview (MMI) be maintained. Evaluators are to be encouraged to red flag applications for discussion when concerns about a candidate arise outside the scoring rubric of the MMI itself. The Committee supports the approach adopted by the University of Toronto in this regard;
12. That the ability for evaluators to give up to five discretionary points to a candidate be eliminated. In its place, candidates will be asked to address one of the remaining CanMEDS domains, a field of their own choosing not necessarily addressed by the CanMEDS framework, or to provide evidence of community engagement or social commitment.

In addition, the Committee makes the following recommendations to the Faculty of Medicine not immediately connected to the admissions process but that, in the view of the Committee, are necessary for the aims and mandate of the admissions process to be met:

1. That the Faculty of Medicine consider its failure to fail students. Admissions is an inexact science. The evaluation of the past performance and the estimation of future performance of young people are inexact. The work of the Admissions Committee cannot be as accurate or as reliable as the ongoing, day-to-day assessments available to Faculty over the course of a student's undergraduate medical education.
2. That the Faculty of Medicine develop feedback mechanisms to inform admissions about the performance of students. Admissions decisions should not be made in a vacuum. The Admissions Committee should be kept apprised of the success or lack of success of medical students to see if trends or correlations between admission evaluations and medical school performance can be identified. There needs to be sharing of information between the Admissions Committee and the Promotions Committee. The Faculty is encouraged to explore long-term research tracking the success of students over the course of their career.
3. That the Faculty of Medicine review its admissions process regularly, at least every three years. This is a dynamic field. The role of the MMI, the personal interview, hybrid interview models, the MCAT, GPA, to name but a few examples, are all presently the subject of intense study. The Committee encourages Dalhousie to keep its admissions processes current with the best evidence. Moreover, assuming some of the recommendations of this review are adopted, the impact of these recommendations needs to be both measured and considered.
4. That the Faculty of Medicine, as part of the medical profession as a whole, take steps on its responsibility to attract more candidates from the African-Canadian and Aboriginal communities. Although admirable initiatives are in place, the Committee suggests that a cohesive and more robust approach involving outreach and mentorship, years upstream from application, is required for the medical profession in the Maritimes to be as diverse as the populations it serves. The Committee notes that outreach will need to extend further upstream than many might contemplate.

The Committee refers to the recommendation of the AFMC which states: "pre-admission outreach to secondary schools, to educate guidance counsellors regarding medical school requirements is necessary, pre-admission outreach is also necessary to better educate applicants regarding societal needs and professional obligations."

As was made clear in the consultation process, a culturally competent admissions process and faculty, in and of themselves, might contribute to the ability of the Faculty to recruit minority applicants.

5. That the Faculty of Medicine ensure that necessary academic supports and culturally competent mentorship are in place for African-Canadian and Aboriginal students. The Faculty's efforts at promoting diversity through affirmative action initiatives cannot end upon admission.

Respectfully submitted on behalf of the Committee as a whole,



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Chair, Dalhousie University, Faculty of Medicine, Admissions Review Committee

DAG/cmd

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