

# A Call-to-Action Against Rising Medical Student Tuition

Nawid Sayed<sup>1</sup>, Craig Rodrigues<sup>1</sup>, Victoria Reedman<sup>2</sup>, Sydney McQueen<sup>2</sup>

<sup>1</sup>Faculty of Medicine, Queen's University, Ontario, Canada

<sup>2</sup>Faculty of Medicine, University of Toronto, Ontario, Canada

## ABSTRACT

There is growing concern among medical students regarding the unprecedented increases in medical school tuition fees, which have been far exceeding inflation. One consideration is how these increasing fees and resulting debt may be impacting student demographic—particularly with respect to socioeconomic status—as well the types of clinical careers that medical students are pursuing, given the lower average salaries earned by primary caregivers. This second point is especially concerning given the shortage of primary care physicians in Canada.

## RÉSUMÉ

Il existe une inquiétude croissante entre étudiants de médecine par rapport aux augmentations sans précédent dans les frais de scolarité des écoles de médecine, qui dépassent de loin l'inflation. Une considération est que ces frais augmentant, et les dettes résultante, pourraient y impacter les segments démographiques des étudiants—surtout par rapport au statut socioéconomique—ainsi que les choix de carrières cliniques que les étudiants en médecine poursuivent, étant donné que les salaires sont plus bas en moyen pour les fournisseurs de soins primaires. Le deuxième point est encore plus préoccupant, étant donné le manque de médecins de soins primaires au Canada.

**M**edical education is known to be a particularly stressful time for aspiring physicians. Students undergo three to four years of intensive formal education, the goal of which is to prepare them for the ultimate responsibility of caring for patients. Although the pressures of matching to residency, acquiring a breadth of knowledge, and managing holistic personal health are well-documented and expected, financial constraints to medical education are becoming an increasing concern. The financial toll of medical training is predominantly driven by an unprecedented increase in medical tuition fees. Medical students in Ontario cite increasing debt levels upon graduation as a major source of stress (1), yet the government has failed to take action. An urgent call is being put forward to implement a freeze on medical tuition rates and to restructure the Ontario Student Assistance Program (OSAP) and line of credit (LOC) debt repayment schedules. This article assesses the financial and societal impact of three proposals to change the tuition structure. The financial impact of student debt was determined by creating a proprietary financial model of the projected student tuition and living costs throughout their years of medical school; all projections are based on publicly available information.

**Proposal #1** | Place an indefinite freeze on medical school

tuition in response to the disproportionate historical rise in tuition above the national inflation rate. This will result in savings of \$8 009.

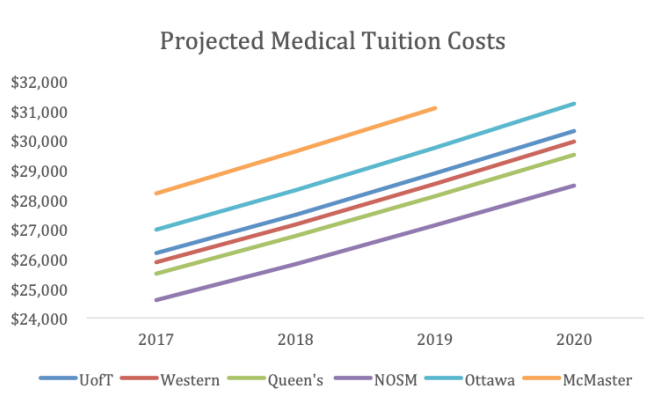
## HISTORY OF TUITION INCREASE

Ontario set a precedent for drastic increases in tuition in May 1998, when the Conservative government deregulated increases in tuition for professional programs such as Medicine and Dentistry (2). Over a three-year period, from 1997 to 2000, tuition rates for Ontario medical schools went up by an astounding 116% compared to just 13% at other Canadian medical schools. Since then, tuition rates at Ontario medical schools have steadily risen at a rate of about 5% per year (3), compared to an inflation rate of 1.87% over the same period (4). Tuition for Ontario medical school students currently sits at an average of \$26 221 and is expected to surpass \$30 000 by 2020 (5) (**Figure 1**). If tuition increases were frozen for the next four years, this would result in average savings of \$8 009 per student based on current tuition rates (5).

**Proposal #2** | Postpone both OSAP and LOC interest repayment until after residency, when students have the financial flexibility to afford these payments. This would result in savings between \$7 617 (OSAP component) and \$24 213 (both OSAP and LOC).

Keywords: Policy; Tuition; Perspective

## COMMENTARY



**Figure 1.** Projected of anticipated increases in annual tuition for Ontario medical schools

### DEBT ACCUMULATION

In addition to the rising cost of tuition, students in Ontario incur an average annual cost of living of \$25 552; this covers basic needs such as transportation, food, and housing (5). Furthermore, third- and fourth-year medical students incur annual living costs of \$29 992 and \$33 052, respectively, with the marked increase being attributable to unavoidable non-tuition-related fees such as those for the Canadian Resident Matching Service (CaRMs) and elective applications (**Figure 2**). Taking tuition into account, medical students are expected to incur annual expenses of \$51 743 after one year, and \$229 628 after four years (at an annual inflation rate of 2%).

Cost of Living (\$)	
Books and supplies	400
Housing	9,600
Food	4,800
Cell Phone	720
Clothing/Laundry	1,605
Utilities and Internet	1,020
Transportation	1,800
Personal Expenses	1,020
Insurance	84
Medical association fees	22
Entertainment	1,050
Travel	1,401
Miscellaneous	2,000
<b>Total for Year 1/2</b>	<b>25,522</b>
Non-Tuition Unavoidable Fees	
<b>Year 3</b>	
Electives applications	2,400
Electives accommodations	2,000
Electives travel	2,000
<b>Total for Year 3</b>	<b>29,922</b>
<b>Year 4</b>	
CaRMs application	500
CaRMs travel/accommodations	6,000
LMCC fee	1,030
<b>Total for Year 4</b>	<b>33,052</b>

**Figure 2.** Annual cost of living for Ontario medical students

The primary cause for financial strain is the inherent mismatch between medical school costs and the cash inflow with which students cover these costs. Medical students generate an average \$16 046 in cash inflow, most of which is through OSAP grants and a final year medical student stipend (**Figure 3**). This means that the rest of their medical school costs must be covered through their OSAP loans and a LOC, both of which accrue interest. Students are granted up to \$8 400 in OSAP loans per year (5). This loan, coupled with their expected cash inflow, leads to a difference of \$28 276 in first year expenses that students must cover with their LOC. After four years, the average medical student is expected to graduate with \$34 622 in OSAP debt and \$129 658 in LOC debt (**Figure 4**).

Income Sources Year 1/2 (\$)	
*Scholarships and bursaries	-
*Grants	-
*Family contribution	-
Summer Income	5,000
OSAP Grant	10,900
<b>Total</b>	<b>15,900</b>
Income Sources Year 3 (\$)	
Scholarships and bursaries	-
Grants	-
Family contribution	-
OSAP Grant	10,900
<b>Total</b>	<b>10,900</b>
Income Sources Year 4 (\$)	
Scholarships and bursaries	-
Grants	-
Family contribution	-
Health Force Ontario Grant	1,500
Final Year Stipend	9,000
OSAP Grant	10,900
<b>Total</b>	<b>21,400</b>

\*Although some students receive funding through family support and entrance scholarships, these projections assume that students are entirely self-funded

**Figure 3.** Annual sources of income for independent Ontario medical students

Accumulated Debt After Medical School (\$)		
School	OSAP	Line of Credit
UofT	34,622	131,229
Western	34,622	129,880
Queen's	34,622	128,208
NOSM	34,622	124,880
Ottawa	34,622	134,595
McMaster*	25,707	110,212
<b>Average</b>	<b>34,622</b>	<b>129,658</b>

\*McMaster's medical program is 3 years long

**Figure 4.** Projected OSAP and Line of Credit debt accumulation following medical school

Of major concern for medical students is that their residency salary is primarily used to cover their annual cost of living and is often not enough to cover annual interest repayments. The average first year resident in Ontario earns \$57 967 (6); this comes at a point in their life where major investments such as buying a home may contribute to even further debt. The average amounts of interest that have to be paid on accumulated OSAP and LOC debts after graduation are \$1 904 and \$4 149 per year, respectively (Figure 5). Assuming that residents are unable to pay down their interest, they would accumulate \$24 213 in interest alone after four years of residency (Figure 6). Thus, postponing interest repayments until after residency—when students have the financial flexibility to pay it—would result in dramatic savings.

**Interest Payment Calculations**

OSAP			
Federal Loan Interest Rate	prime +		2.50%
Prov. Loan Interest Rate	prime +		1%
Fraction of federal OSAP			70%
Fraction of provincial OSAP			30%
**OSAP Interest Rate			5.5%
**LOC Interest Rate			3.2%
Annual LoC Interest			\$4,149.06
Annual OSAP Interest			\$1,904.18
Annual LoC and OSAP Interest			6053.25

\*OSAP loans are comprised of 70% federal loan and 30% provincial  
 \*\*Interest rates have risen since publication of this paper due to an increase in the variable prime rate

**Figure 5.** Calculation of annual interest payments following medical school completion

**Impact of Postponing Debt Repayment (\$)**

Scenario Analysis	Savings
OSAP Interest Postponement	7,617
LOC Interest Postponement	16,596
OSAP Postponement at LOC Rate	4,432
<b>Total Savings (OSAP + LOC)</b>	<b>24,213</b>
<b>Total Savings (with OSAP at LOC Rate)</b>	<b>21,028</b>

**Figure 6.** Savings incurred if interest repayment is postponed until after residency

**Proposal #3** | Allow students to fund their medical school years entirely through OSAP loans. This would offer savings of \$10 056 in LOC interest payments while students are in medical school. The government would simultaneously benefit in the form of increased interest payments coming from a low-risk investment.

**GOVERNMENT RESPONSE**

In acknowledgment of high student debt levels, the Ontario government offers a Resident Loan Interest Relief Program through which medical residents are not required to pay principal or interest on their OSAP debt throughout the duration of their residency (7). In return, the resident must promise to provide physician services in Ontario for five years following their medical residency. If the resident breaches their Return of Service (RoS) agreement, they incur a financial penalty and are required to pay any interest that would have otherwise accumulated. Although this program provides relief to some students, it comes with many limitations. Many Ontario medical students complete their residency outside of the province; it places a strict geographical limitation on physicians who may be hoping to settle elsewhere; there is no promise that these residents will find employment in Ontario; and it runs the risk of an even greater increase in debt if they breach their agreement. Additionally, with respect to residency prospects, Ontario has the largest number of unmatched medical graduates in the country. Since 2014, there has been a disproportionate increase in the number of unmatched Ontario graduates relative to the rest of Canada (Figure 7) (8). This trend further compounds the trouble medical students may have with debt repayment and lessens the desired effect of the Resident Loan Interest Relief Program.

**Unmatched Ontario Medical Students**

Year	Number Unmatched
2016	19
2017	35
2018	53

**Figure 7.** Annual number of unmatched Ontario medical students

Several years ago, the Ontario Medical Student Association (OMSA) approached members of the provincial government at Queen’s Park and asked for an increase in OSAP loans to match the rising tuition costs (9). This would drastically benefit students who are reliant on lines of credit, as they are required to pay interest on their LOC while they are in medical school as described above. For the average medical student graduating with \$129 658 owed on their LOC, they are required to pay \$9 992 in interest throughout their four years spent in school (Figure 8). Unfortunately, at that time the provincial government was reluctant to make changes to OSAP loan limits for medical students. While the government does offer a 30% off tuition student grant, the maximum OSAP loan allotment per year is capped at \$8 400; this creates a dramatic

compounding effect of unaffordable LOC interest payments while students are still enrolled in school (10). Increasing the OSAP loan threshold for medical students also provides a financial incentive for the government, as they would be able to receive more in interest payments after student graduation at a very low risk of default.

LOC Interest Payments (\$)	
Year 1	905
Year 2	1,863
Year 3	3,140
Year 4	4,149
<b>Total</b>	<b>10,056</b>

**Figure 8.** Projected annual line of credit interest payments by medical school year

In recent years, the government had made notable changes in OSAP to make education more accessible for students in a breadth of disciplines: undergraduate students whose families earn less than \$50 000 annually were eligible for free tuition, and doctoral students were granted a lifetime limit of up to 400 weeks (or 7.7 years) of OSAP payments (10). However, with a shift in provincial leadership, the new government announced in January 2019 that it would make several changes to OSAP, including overall reductions in OSAP grants and loans, elimination of interest-free status during the 6-month grace period after graduation, and elimination of full tuition support for students from low-income families (11). While some of the government’s precedence of adjusting OSAP shows their receptiveness to the voice of medical students, the more recent changes in the OSAP structure further highlight the negligence of the government in addressing mounting student debt.

### SOCIETAL IMPACT

Rising tuition levels not only have significant financial impacts at the individual student level, but also have broader systemic impacts that are negatively shaping the national healthcare landscape. At the forefront of these concerns is the drastic shift seen in medical student demographics. Following the deregulation of tuition in 2000, it was found that the proportion of Ontario medical students coming from families earning less than \$40 000 dropped from 22.6% to 15% compared to just a 0.2% decrease in other provinces that had not experienced tuition deregulation (1). In the same period, a study at Western University found that their average medical student’s family

income was \$140 000 compared to \$80 000 just three years prior (12). These findings are in alignment with historical U.S. data which showed that as tuition fees rose in the 1970s and 1980s, the socioeconomic status of enrolling medical students increased (13). Finally, the 2007 National Physicians’ Survey has found that increasing tuition levels have resulted in a lack of diversity of student backgrounds (14).

Another implication of increased debt load revolves around the primary care crisis. As it stands, primary care is in high need but low supply (15). A potent factor contributing to this deficit is the relatively lower average salary primary caregivers receive compared to other specialties. While there is limited data in Canada, researchers from the U.S. have begun to draw a relationship between medical school debt and deterrence from the primary care specialty (16). In a 2014 retrospective analysis of 136 232 physicians who graduated from U.S. medical schools between 1988 and 2000, physicians that graduated with higher debt had lower odds of practicing in primary care (17). The influence of financial drivers such as increasing debt levels will negatively impact physician services being offered in primary care, thereby worsening the quality of care that the population receives.

Rising medical school debt has also been thought to contribute to rural physician shortage. Research shows that students from rural and peripheralized communities have a larger likelihood of returning to these communities after their training (16). This premise is largely why medical schools such as the Northern Ontario School of Medicine (NOSM) and Western favor incoming applicants from rural Ontario. However, students from rural parts of Canada have significantly larger education debt at entry compared to students from urban centers and are more likely to come from families of lower socioeconomic status and parental income. These factors make it less likely for such students to pursue a medical education in the face of rising tuition fees and a greater financial burden on their families (18). Overall, unregulated increases in tuition may result in a deterrence that disproportionately affects perfectly qualified candidates who would most likely serve areas of Ontario and Canada in need.

Irrespective of the impact that tuition has on the socioeconomic status of medical students, several studies have shown that medical students come from more affluent families. These families tend to be more educated, wealthy, and underrepresent Canadian minority groups such as Blacks, Aboriginals, and rural Canadians (19). By financially



decreasing access to medical education, physicians are becoming distanced from the Canadian population, making it more difficult to supply Canadians with relatable and compassionate caregivers. Current efforts to address the lack of diversity within the medical profession fail to address root causes such as financial barriers. Although there are specific programs which have been established within Ontario to serve as a patchwork repair system to deal with diversity issues—such as the University of Toronto’s Black Student Application Program (20)—more of these admissions/financial assistance programs may become warranted as tuition continues to grow at an unprecedented rate, which would further complicate the admissions process rather than address the actual cause.

## PROPOSAL SUMMARY

This paper addresses the overwhelming financial burden that Ontario’s future physicians are facing, and the negative downstream systemic consequences that have resulted. While the rising tuition has thus far damaged Ontario’s health care system, this paper proposes three distinct strategies to reduce and reverse physician debt. In the long run, this will ensure that there is less of a socioeconomic gap between physicians and their patients and will place less of a financial hinderance on those medical students considering a career in primary care.

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