

The Health Human Resource Crisis

Issues in Medical Training and Practice



Medical Education Day of Action 2023





About Us: The Canadian Federation of Medical Students (CFMS) is the national organization representing over 8,000 Canadian medical students from 15 medical schools across Canada. We represent medical students to the public, to the federal government, and to national and international medical organizations.

Our Mission: The Canadian Federation of Medical Students (CFMS) is the national voice of Canadian medical students. We connect, support, and represent our membership as they learn to serve patients and society.

Our Vision: Tomorrow's physicians leading for health today.

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Introduction

1) Current Landscape, Roles & Responsibilities

After medical students complete their undergraduate medical degree, they apply to the Canadian Resident Matching Service (CaRMS) program to be placed in a residency program. The main residency match for undergraduate trainees has almost 5,000 applicants in over 30 programs across Canada each year.¹

In Canada, health care management and delivery are largely a provincial and territorial responsibility.² Universities that provide medical student training are funded by the provincial government, who receive funding from provincial grants and provincial per capita amounts.³ Provincial ministries of health provide funds to universities and hospitals for a specified number of residents each year. The number of residency spots is decided by the individual provinces as they are responsible for funding residency seats.³ Although the Ministry of Health and Long-Term Care decides on the overall number of training positions, it plays a much smaller role in determining how these positions are allocated among the various specialties. For example, Newfoundland and Labrador recently added five residency seats to their family medicine residency program in 2022.⁴

Many provinces have return of service agreements, in which a province agrees to fund several residency positions in exchange for services at specific locations to their health system.⁵ Return of service agreements are very commonly designed to serve under-served communities.

A. Overview of medical training pathways in Canada

Medical training pathways in Canada can be divided into two categories: Canadian Medical Graduates (CMGs) and International Medical Graduates (IMGs). CMGs are individuals who have completed their medical education in Canada. The Medical Council of Canada classifies an IMG as someone who has earned a medical degree from a medical school outside of Canada or the United States that is not accredited by the Committee on Accreditation of Canadian Medical Schools or the Liaison Committee on Medical Education in the US. This also includes graduates of a US school of Osteopathic Medicine that is accredited by the American Osteopathic Association.

To be eligible for certification, Canadian medical graduates must complete a postgraduate training program that has been accredited. This training program, known as residency training, has a different duration for different specialties. Family medicine residency training lasts for two years, while other specialties require four to seven years of residency training. During this time, trainees, referred to as residents, are only allowed to practice medicine under supervision and with an educational license. Residency training involves offering direct patient care in various settings, including teaching and non-teaching hospitals, as

well as urban academic centers and remote rural communities. Residents are on the front lines of the healthcare system, providing advanced and skilled medical services to patients. In many major hospitals, a resident is the first physician that a patient encounters and the last face they see upon discharge.

Every year, all final-year medical students, CMGs and IMGs, who wish to pursue post-graduate medical education (PGME) in Canada apply for offered residency positions through the match process. The Canadian Residency Matching Service (CaRMS) administers the match each year through their online application service. The residency application process involves several steps, including the submission of an application to CaRMS, which is reviewed by residency program directors, followed by an interview with residency program directors. After the interview, applicants rank their preferred residency programs, and residency programs rank their preferred applicants. CaRMS then uses a computer algorithm to match applicants with residency programs. However, every year, several applicants are left unmatched. This can occur for a variety of reasons, including a lack of available residency positions in the applicant's preferred specialty, a mismatch between the applicant's qualifications and the requirements of the residency programs, or a lower ranking by the residency programs in comparison to other applicants.

The medical training pathways in Canada are designed to provide a structured and rigorous training experience for junior physicians. Through coordination by CaRMS, the residency application process is designed to match applicants with residency programs that best meet their qualifications and preferences. Depending on the program, the process can be competitive, but it is important to reiterate that applicants are unmatched each year which is unacceptable.

Issues and Recommendations

1) Increased training positions and residency spots

Overall, data show a decrease in the ratio of CaRMS participants to available positions over the years. In 2009, for each CMG applicant, there were 1.12 positions available in any discipline, whereas this ratio declined to 1.06 in 2022 - a 5.4% decrease in 13 years.⁶ This is concerning because the number of CMGs have been increasing over the past 13 years, while the respective increase in available residency positions has not been proportional. The same trend is reflected in the percentage of matched CMGs. Overall, 96.2% of applicants matched during the first iteration of CaRMS in 2010, whereas only 93.6% matched in 2022. In 2010, 64.9% of CMGs matched to their 1st choice rank, while only 59.3% matched to their first choice in 2022.⁷

2023 R-1 match national highlights

First iteration						
Applicant type	Current year graduates			Previous years graduates		
	Matched	% Matched	Unmatched	Matched	% Matched	Unmatched
CMG	2,677	93.5%	187	66	90.4%	7
USMG	13	86.7%	2	3	60.0%	2
IMG	99	72.3%	38	323	30.1%	751

Second iteration							
Applicant type	Current year graduates			Previous years graduates			
	Matched	% Matched	Unmatched	Matched without prior PG training	Matched with prior PG training	% Matched	Unmatched
CMG	83	60.6%	54	4	20	43.6%	31
USMG	0	0.0%	1	1	0	33.3%	2
IMG	16	39.0%	25	113	4	12.5%	822

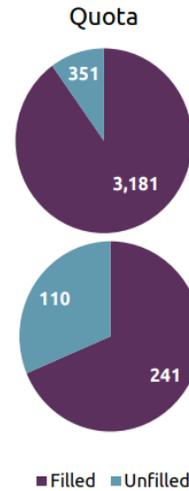


Figure 1. New 2023 data show that 2,850 applicants were CMGs. In the first iteration, 187 CMGs went unmatched with 7 additional CMGs who graduated in the previous year going unmatched. After both rounds, there were 54 unmatched CMGs (1.9%), compared with 35 (1.2%) in 2022.⁸

Since 2014, the percentage of filled family medicine positions has been decreasing from about 94% to less than 86% in 2022, despite the growing number of CMGs. In 2023, there were 268 unfilled family medicine spots at the end of the first iteration and 100 unfilled spots after the second iteration.⁸ The majority of these spots were in Alberta and Quebec.

Statistics from the CaRMS database:

A)

2022 R-1 Main Residency Match - first iteration
Table 22: Quota offered to CMG applicants by discipline

Discipline	Quota Offered (Q)	% of Total Quota Offered	Total Quota after Reserves (R)	Quota Filled (F)	Quota Vacant (V)
Anatomical Pathology	34	1.1%	34	29	5
Anesthesiology	127	4.1%	129	129	0
Anesthesiology - Clinician Investigator Program	2	0.1%	0	0	0
Cardiac Surgery	11	0.4%	11	11	0
Dermatology	28	0.9%	28	28	0
Diagnostic Radiology	76	2.5%	77	77	0
Diagnostic Radiology - Clinician Investigator Program	0	0.0%	70	70	0
Emergency Medicine	1,399	45.5%	1,399	1,180	219
Family Medicine	0	0.0%	1	0	1
Family Medicine Integrated Care of the Elderly	1	0.0%	4	4	0
Family Medicine Integrated Clinician Scholar	4	0.1%	0	0	0
Family Medicine Integrated Emergency Medicine	8	0.3%	8	3	5
General Surgery	80	2.6%	80	80	0
Hematological Pathology	2	0.1%	4	2	2
Internal Medicine	461	15.0%	461	461	0
Laboratory Medicine	0	0.0%	0	0	0
Medical Biochemistry	0	0.0%	0	0	0
Medical Genetics and Genomics	8	0.3%	8	7	1
Medical Microbiology	7	0.2%	7	4	3
Neurology	49	1.6%	49	42	8
Neurology - Pediatric	6	0.2%	6	3	3
Neurophysiology	4	0.1%	4	2	2
Neurosurgery	22	0.7%	22	19	3
Nuclear Medicine	9	0.3%	9	7	2
Obstetrics and Gynecology	85	2.8%	85	84	1
Ophthalmology	35	1.2%	35	35	0
Orthopedic Surgery	52	1.7%	52	52	0
Otolaryngology - Head and Neck Surgery	18	0.6%	18	18	0
Otolaryngology - Head and Neck Surgery - Research Track	0	0.0%	141	132	9
Pediatrics	140	4.6%	141	132	9
Pediatrics - Clinician Investigator Program	1	0.0%	1	1	0
Pediatrics - MD-PhD stream	1	0.0%	0	0	0
Pediatrics - Research Track	0	0.0%	0	0	0
Physical Medicine & Rehabilitation	29	0.9%	29	27	2
Plastic Surgery	23	0.7%	23	23	0
Plastic Surgery - Clinician Investigator Program	1	0.0%	1	1	0
Plastic Surgery - Research Track	0	0.0%	0	0	0
Psychiatry	180	5.9%	181	169	12
Psychiatry - Clinician Investigator Program	1	0.0%	0	0	0
Psychiatry - Research Track	1	0.0%	0	0	0
Public Health and Preventive Medicine	9	0.3%	9	8	1
Public Health and Preventive Medicine including Family Medicine	9	0.3%	9	8	1
Radiation Oncology	21	0.7%	21	19	2
Residency	0	0.0%	0	0	0
Visiting Surgery	10	0.3%	10	10	0
Grand Total	3,075	100.0%	3,075	2,782	293

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B)

2022 R-1 Main Residency Match - first iteration
Table 32: First choice discipline of unmatched CMGs by discipline

Discipline	Unmatched
Anatomical Pathology	1
Anesthesiology	22
Cardiac Surgery	3
Dermatology	4
Diagnostic Radiology	14
Emergency Medicine	6
Family Medicine	21
General Surgery	15
Internal Medicine	16
Medical Genetics and Genomics	1
Nuclear Medicine	1
Obstetrics and Gynecology	10
Ophthalmology	22
Orthopedic Surgery	7
Otolaryngology - Head and Neck Surgery	3
Pediatrics	4
Physical Medicine & Rehabilitation	1
Plastic Surgery	12
Psychiatry	6
Urology	10
Vascular Surgery	7
Grand Total	186

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Figure 2. In 2022, 186 applicants were unmatched during the first iteration of CaRMS.

A)

2022 R-1 Main Residency Match - first iteration
Table 39: Family Medicine positions filled, offered and vacancies for CMGs

School of Residency	% of Family Medicine Positions Filled	# of Family Medicine Positions Offered	# of Vacancies in Family Medicine
Memorial University of Newfoundland	94.3%	35	2
Dalhousie University	86.2%	58	8
Université Laval	83.1%	130	22
Université de Sherbrooke	70.9%	117	34
Université de Montréal	78.3%	161	35
McGill University	92.2%	103	8
University of Ottawa	87.9%	58	7
Queen's University	95.3%	64	3
Northern Ontario School of Medicine	62.5%	40	15
University of Toronto	100.0%	136	0
McMaster University	79.3%	87	18
Western University	70.9%	55	16
University of Manitoba	88.1%	42	5
University of Saskatchewan	75.0%	52	13
University of Alberta	75.4%	65	16
University of Calgary	78.4%	74	16
University of British Columbia	99.2%	122	1
Grand Total		1,399	219

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B)

R-1 Main Residency Match
Table 59: Family medicine positions match comparison

Year	1st Iteration			2nd Iteration		
	% Filled	Available	Filled	% Filled	Available	Filled
2022	85.7%	1,569	1,344	56.0%	225	126
2021	86.7%	1,561	1,354	57.4%	209	120
2020	89.2%	1,573	1,403	71.2%	170	121
2019	91.1%	1,552	1,414	76.1%	138	105
2018	89.7%	1,532	1,374	58.9%	158	93
2017	89.7%	1,535	1,377	64.6%	158	102
2016	92.2%	1,518	1,399	65.5%	119	78
2015	93.4%	1,509	1,409	55.6%	99	55
2014	94.1%	1,485	1,397	69.3%	88	61
2013	91.5%	1,422	1,301	63.2%	117	74

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Figure 3. In 2022, 219 family medicine positions were vacant after the first iteration.

According to a letter published by UBC Medical Journal, since 2009, the Canadian Medical Association and the Canadian Federation of Medical Students have recommended an ideal target of 120 spots for every 100 CMG applicants in order to optimize the matching algorithm. In 2009, there were 112 spots for every 100 CMG applicants, which although was less than desired, still allowed for the majority of students to match into a specialty of their choice.⁹

Over the past decade, this ratio has steadily decreased to the point where there are now 101 spots for every 100 CMG applicants.⁹ When language differences are taken into account, there may be less than 98 spots for every 100 English-speaking applicants due to a greater number of Quebec graduates matching outside of Quebec than vice versa.⁹

For the last 10 years, as the number of medical students has gone up and the number of residency spots has stagnated, more and more Canadian medical graduates have not secured residency spots.¹⁰ This has resulted in urgent calls by medical student and faculty associations for provinces to fund more spots. In some provinces, partial fixes have been offered to address this issue. For example, Nova Scotia is facing a shortage of family physicians particularly in rural areas.¹¹ Research shows that doctors are more likely to practice in a rural area if they trained in a rural area.¹² The Canadian military has also engaged in creating their own programs to address this issue such as the Medical Officer Training Plan (MOTP) surge, a program stemming directly from CFMS advocacy on the issue.¹³ However, these measures may not be enough. The number of residency positions available across Canada continues to fall in recent years. In 2015, Ontario cut 50 residency positions due to cited “scarce healthcare dollars”. CBC wrote: “The Liberal government apparently made the cuts to save costs and help reduce its \$10.9-billion budget deficit, but not to help patients”.¹⁴

At the same time, the number of international medical graduates (IMGs) applying for residency in Canada has been growing, many of whom are Canadians who studied medicine abroad.¹⁵ The number of CMGs applying to US and international residency programs has also decreased over the past decade.⁶ To further add to this issue - students who fail to match for a residency position in the previous year must re-enter the match in the subsequent year, adding

to the pool of current-year candidates. Some provinces also have more residency spots than others, creating an imbalance between supply and demand (see Figure 4).⁶ Overall, a mismatch between the number of graduating students and available spots has resulted in this crisis.



2022 R-1 Main Residency Match - first iteration

Table 42: Distribution of matched CMGs from school of graduation to school of residency

School of Graduation	School of Residency																Grand Total	
	MEMORIAL	DALHOUSIE	LAVAL	SHERBROOKE	MONTREAL	MCGILL	OTTAWA	QUEEN'S	NOSM	MCMMASTER	TORONTO	WESTERN	MANITOBA	U OF SASK	U OF ALBERTA	CALGARY		UBC
Memorial University of Newfoundland	46	13				2	2	6		2		1	1	2	1	1	2	79
Dalhousie University	3	55				2	8	5	2	7	3	5	1	2	3	4	2	102
Université Laval			139	17	29	16								1	1	1		204
Université de Sherbrooke	1	5	21	108	47	17	2	1		1					1	1		205
Université de Montréal	1		41	41	152	29	5			4	1						1	275
McGill University		2	2	5	24	86	15	4	1	8	9	3	1		2	2	9	173
University of Ottawa	2	1	1	1	2	9	60	13	5	12	30	7	2		3	3	9	160
Queen's University		4					7	21		10	24	6	5	1	2	4	12	96
Northern Ontario School of Medicine	2	6					3	5	24	5	1	1		4		2	5	58
University of Toronto	1	4				1	12	8	1	24	143	14	2	4	4	6	18	242
McMaster University	2	8					14	11	1	52	67	8		6	2	7	16	194
Western University	3	7				2	5	18	1	14	23	66	1		2	7	11	160
University of Manitoba	2	2					4		1	2	3	1	73		2	8	3	101
University of Saskatchewan		4					5	1	2	5	3	4	6	37	6	8	15	96
University of Alberta	1	5				2	3	2		7	5	2	6	6	76	28	13	156
University of Calgary	1	1				1	3	4		5	3	4	7	5	32	63	14	143
University of British Columbia	3	11				2	5	8	2	7	16	6	2	6	16	17	169	270
Grand Total	68	128	204	172	254	169	153	107	40	165	331	128	107	74	153	162	299	2,714

Figure 4. Comparison of each medical school’s number of CMGs versus their number of residency positions.

Family medicine has historically been one of the most popular choices for Canadian graduates, but it has also seen a decline in demand in recent years.^{16,17} Some surgical specialties, such as neurosurgery and orthopedic surgery, have been highly competitive and have fewer spots than applicants. Some non-surgical specialties, such as psychiatry and internal medicine, have seen an increase in demand and have more spots than applicants.^{16,17}

Going unmatched can have significant career and financial repercussions for CMGs. With neither a student status nor professional license, unmatched graduates depend on their

school and provincial legislation for the ability to work in clinical settings. In addition to potentially paying for another year of tuition, unmatched students are required to immediately begin paying back their student loans and lines of credit—which can total more than \$100,000—without a resident's salary. Unfortunately, their chances of being successfully matched the following year are not optimistic either. Over the past three years, an average of 41% of prior-year CMGs failed to match, compared with only 3.5% of current-year CMGs.⁹ Unmatched graduates may also leave Canada to seek residency elsewhere or pursue alternative careers.

As for its impact on the Canadian health care system, it is important to note that rural distribution of physicians is a major issue in Canada. International Medical Graduates (IMGs) allocated residency positions often have return-of-service agreements where they must work in specified communities for a certain number of years.¹⁵ The health care system also loses potential physicians who could fill gaps in underserved areas or disciplines, such as family medicine.

Recommendations

Residency spot allocation is very important; “within Ontario, the two major stakeholders involved in residency spot allocation include individual medical schools, who determine their postgraduate residency program capacities, and the MOHLTC, who determines the geographic distribution of residency spots across specialties based on the predictive of Ontarians’ health needs”.¹⁸

Here are potential strategies that have been proposed to achieve optimal residency spot ratios in the Canadian healthcare system:

- 1. Increase funding for residency training program spots to achieve the optimized 1.2:1 ratio.**
 - a. Additional funding can help to create more residency positions and reduce competition among applicants.
- 2. Allocate residency positions based on population/regional need and employment capacity per specialty.**
 - a. This demands increasing data collection and transparency about how residency positions are allocated in order to better understand the extent of the problem
 - b. Training capacity should be weighted toward medical specialties where there is a large unmet health care need while, similarly, physician trainee positions should be controlled in specialties that offer limited employment opportunities (11).
 - c. By ensuring that residency positions are distributed evenly across regions, it may become easier for applicants to find a match in their preferred location.
- 3. Use the right criteria to determine residency capacity, not institutional (staff or administrator) self-interest.**

- a. The reality of residency training is that many academic centres rely heavily on residents to provide a significant quantity of health care in their institutions. While service provision is a critical component of residency training, the dependency of departments on residents can be an artificial incentive to create or maintain positions and is a deterrent to proper reassessment of positions (11).
- b. Institutions' desire to maintain such coverage must not play a major role in decisions about residency position allocation.

2) Barriers to access and incentivization of primary care

A. The State of Accessing Primary Care in Canada

Across Canada, 4.6 million people (15% of the population) do not have access to primary care.¹⁹ Access to primary care is more challenging in certain provinces, including Quebec (21.5% of the population) and British Columbia (17.7%). This problem disproportionately affects rural Canadians. Although 18% of Canadians live in a rural area, only 8% of Canadian physicians provide care in rural locations.²⁰ Thus, patients rely on walk-in clinics and emergency departments, which lengthens wait times and overloads other parts of the health system. This contributes to staffing shortages in many northern and remote communities, leading to emergency department closures in towns like Hay River, NWT²¹.

Additionally, licensing restrictions make it difficult for patients to access care across provincial and territorial borders: after three months in a new jurisdiction, they are no longer covered by their previous province or territory—even virtually. This translates to long waitlists for access to local providers.

Accessing routine and specialized services may also require flying to large centres, thus costing patients, families, and the health system. Given these barriers, treating their health issues means forcing patients to take time off work, pay for travel and childcare, and leave their support networks. Furthermore, those living in rural areas have worse health outcomes compared to their urban counterparts, making easier access to care even more essential for good health.

B. Incentivizing Primary Care

The CMA recommended committing \$300 million over 3 years to primary care physicians to help with debt relief, and better incentivize primary health care retention.²² They provide examples of how to utilize this money, including offering physicians a one-time income tax deduction of up to \$15,000 over the first 3 years of practice to help with start-up costs associated with opening an independent practice. Incentives such as this have proven successful in other areas, including the United States. For example, programs in Oklahoma pay medical students \$15,000 a year and family medicine residents \$1,000 per month if they commit

to rural practice for the period of subsidization.²³ Similar programs across the United States have led to a rise in the number of practitioners working in underserved communities.

Although incentive programs are limited by fiscal considerations of governments and universities, the cost of having a substantial percentage of a population without medical care is equally burdensome. For instance, earlier detection and diagnosis leads to less complex and expensive care later on, which improves patient outcomes and lowers disease burden.²⁴ Cost savings are evident for early detection of many types of disease, including in cancer diagnosis and staging, whereby earlier detection leads to significantly reduced healthcare costs.²⁵

C. Recruitment and Retention Incentives

Experienced health professionals provide invaluable knowledge, training, and leadership. Declining human health resources have been further strained during the pandemic, highlighted by increasing wait times and emergency room closures. Health care workers are more stressed at work, have increased workloads, and are working more overtime than ever. Supporting the longevity of health care careers is crucial to maintaining sustainable staffing levels. Nearly 1 in 10 physicians plan to leave their current jobs in the next 3 years.²⁶ Robust retention strategies are needed to change this declining trajectory and fill over 150 000 current job vacancies in healthcare and social assistance.

While recruitment efforts are often targeted towards physicians who have completed their medical training, research has shown that earlier intervention is more effective.²⁷ Recruiting skilled practitioners starts with ensuring that there are policies and programs that recruit Indigenous and rural students into medical school.^{20,27} In addition to this, The College of Family Physicians of Canada (CFPC) highlights a number of policy interventions to better align medical and human resources.²⁷ They recommend that generalist training is supported throughout trainees' medical education so they are confident in their skills upon graduation. They have also recommended that contracts for residents working in rural settings maximize rural learning experience and resident autonomy, which in turn may increase retention.

The Canadian Government has also put forth several recommendations for recruitment and retention as a result of the Human Health Resources Symposium.²⁸ Some of the recommendations made were to increase the infrastructure to support students in studying and learning where they live (e.g., more rural and remote sites), provide incentives to encourage individuals to join the healthcare workforce (e.g., student debt forgiveness, equitable pay) and to improve flexible workplace environments where healthcare workers can take entitled vacation and provide flexibility in staffing.

Recommendations

- 1. Implement policies and programs that recruit Indigenous and rural students into medical school.**^{20,27}

- a. Research has shown that early intervention programs that facilitate supporting Indigenous and rural students entry into medicine proves more effective in the return and retention of these students to their communities
- 2. Increase the number of rural and remote sites for medical education.²⁸**
 - a. This will not only lend to an increase in exposure of rural medicine to learners but also better equip them with the unique skills and knowledge necessary to excel as a rural practitioner.
- 3. Contracts for residents working in rural settings should maximize the rural learning experience and resident autonomy.²⁷**
 - a. This will allow residents to finetune their strengths and identify/address weaknesses to allow their rural practices to flourish in both the short and long term. This lends to long-term retention.
- 4. Support generalist training throughout trainee's medical education.²⁷**
 - a. This will allow learners to have greater confidence in their skills and provides a strong foundation for autonomy.
- 5. Provide incentives to encourage individuals to join the healthcare workforce such as student debt forgiveness and equitable pay.²⁸**
 - a. Programs abroad, that include the United States have shown that financial incentives have lent to a rise in the number of practitioners working in underserved communities
 - b. Non-financial incentives like creating a more flexible workplace environment (e.g., entitled vacation, flexibility in staffing) are also valuable factors that have also contributed to better long-term retention of staff.

3) Retention of Healthcare workers

A. Wellness and mental health

Wellness in medical education is a critical issue, as the demands of medical training and practice can take a toll on the mental and physical health of medical trainees. The mental health and wellness of health care students and professionals has been ignored for too long and the pandemic has only exacerbated the issue. A survey conducted by the CMA in November 2021 showed more than half of physicians and medical learners (53%) have experienced high levels of burn out.^{29,30} It is essential that the well-being of medical students is prioritized and learners are provided with the necessary tools and resources to maintain their health throughout the course of their medical education as they prepare to become practicing physicians.

One aspect of wellness in medical education that must be addressed is access and opportunities for adequate career support. Students are expected to make career decisions early on in their training yet without proper support and mentorship throughout this process, they

may not have the adequate opportunities to explore the different career options and make informed choices. Furthermore, these opportunities vary widely across Canadian medical schools and students in schools without residency programs of a certain specialty may be limited in their opportunities to explore all options on their own. These career choices will make a major impact on their career satisfaction as they progress through residency and beyond and given the expectation of students to decide early on in their training, it is imperative that they are provided with the resources and support to do so.

Another key area to address is the lack of wellness programs to support the mental health and wellness of medical learners. Medical learners face academic challenges including long hours, high-stress environments, and intense pressure to perform coupled with navigating complex ethical and interpersonal issues in their learning as they often confront illness, death, and trauma. To address these challenges, medical schools across Canada should provide comprehensive wellness programs that address both the physical and mental health needs of their students and residents. Many of the 17 medical schools across Canada do not have a formal wellness program and among those with an established curriculum, the content and delivery methods vary widely, with some schools incorporating wellness content as an adjunct to other curricula.³¹ Moreover, it is important to recognize that to holistically address wellness, the root policies and procedures that make learners unwell must be addressed initially. In their work done towards addressing fatigue risk management, Resident Doctors of Canada (RDoC) has identified how scheduling of residents for duty periods of 24 consecutive hours or more without restorative sleep not only has negative implications on their mental and physical health but in how it impacts cognitive and behavioural performance in the clinical setting as well.³²

B. Burnout

In Canada, 53% of physicians report high degrees of burnout, with inflexibilities in the system being a key contributor.³⁰ The current licensure model creates barriers for locums to support an improved physician work-life balance: “physicians are faced with the decision to cancel on patients and feel like [they’ve] abandoned them, burden an already overworked colleague with squeezing them in, cancel [their] vacation (yet again), or show up to work sick and tired”.³³

Staffing shortages for filling locum positions make it difficult for physicians to provide an appropriate level of care for patients. Furthermore, staffing limitations hamper work-life balance, disproportionately affecting female physicians who may be unable to find coverage for parental leave.

A national pool of eligible physicians to fill locums allows for greater continuity and quality of care; provides valuable work experience for new physicians, and creates greater flexibility in practice, reducing workplace stress.³³

C. Reducing Administrative Demand

Increasing administrative workload has been identified by physicians as one of the biggest contributors increasing the demand for their time at work.³⁴ Unnecessary time spent on administrative tasks contributes to hours worked overtime, worsening mental health and burnout, reduced perceived care for patients, and lack of time for mentorship.^{35,36} On average, physicians are working more than 10 hours per week outside of the normal workday on administrative tasks.³⁷

Adding government funded primary care team members who can immediately support a broad range of patient needs has been proposed as a potential solution to enable efficiency, thus increasing the load of patients that family physicians can see.³⁸ Increasing administrative/clerical staff and reducing paperwork has been cited as a necessity to unlock more time for direct patient care.²² Furthermore, improvements in the efficiency of clinical and administrative work would increase time spent directly on patient care.³⁸

Recommendations

1. **Measure, identify and address impact of physician administrative burden**
Specification of administrative burden in terms of hours, for both necessary and unnecessary tasks.³⁹ Of the unnecessary tasks, tasks should be identified and sorted into those that could be completed by someone else, and the portion that is wholly unnecessary could be eliminated.
 - a. **Identify the sources of physician administrative burden and top irritants to resolve and set a reduction target:** A potential example of this was the CMA supporting the removal of requirement of sick notes in Ontario in 2018.^{40,41}
 - b. **Fair compensation for filling third party forms:** Physicians should be compensated for completing forms related to return to work by provincial/territorial worker's compensation plans; they should be compensated for completing return-to-work forms for non-occupational conditions by provincial/territorial insurance plans, given the important health implications of return-to-work management.³⁴

2. **Build up an integrated health workforce**
Scale up collaborative, interprofessional primary care so that more Canadians can access timely care provided by family doctors together with other primary care practitioners in a team-based model.^{42,43}
 - a. Build on existing virtual care models to increase access and remove barriers to appropriate care in a safe, secure virtual space.
 - b. Invest in new training and education infrastructure to increase the supply of physicians, nurses and nurse practitioners.
 - c. Support internationally trained physicians, nurses and nurse practitioners in getting licensed and into the workforce.

4) National License

National licensure refers to the ability of physicians with full licenses to practice independently without restrictions or for medical resident trainees registered in any Canadian jurisdiction to practice or train in any other Canadian jurisdiction without having to acquire more than one license or pay additional licensing fees.³³ Currently, physicians are required to have individual licenses within each respective province or territory they practice, which limits their mobility across the country. Physicians cannot easily travel to another province without obtaining an additional license in that province or territory. In most cases, practicing in another province or territory requires a long application process with thousands of dollars in fees.⁴⁴

Currently, the process for inter-jurisdictional practice is piecemeal with no standardized approach utilizing a database or public registry. Over 95% of physicians and medical trainees support a pan-Canadian license as a means to overcome barriers to care.⁴⁴ A concerted response from the federal government is needed to support provinces and territories that have demonstrated an increasing need for an integrated, coordinated, and responsive health care workforce.

A. Implications of National Licensure

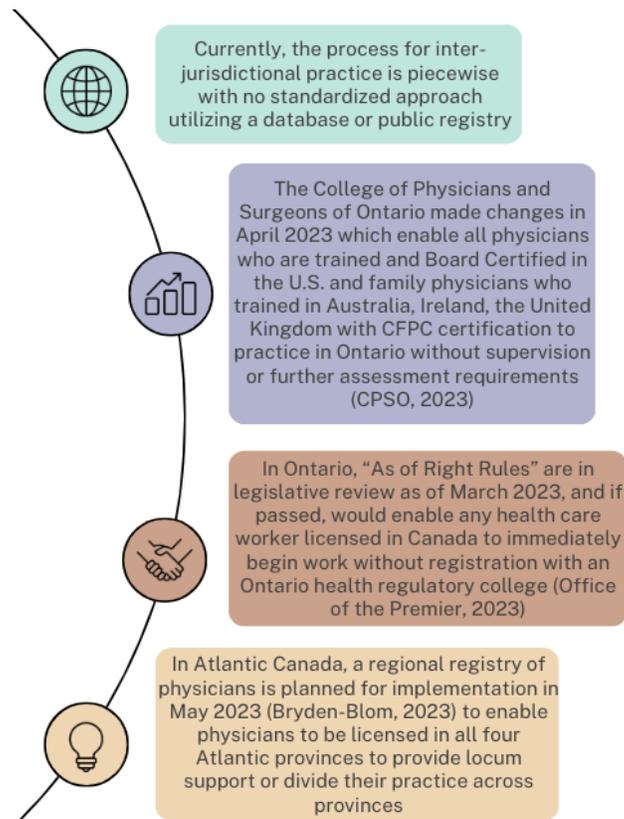
National licensure increases the mobility of physicians, making it easier for doctors to work and travel across the country.³³ This can help augment the medical workforce serving patients in rural and remote communities and provide for more efficient responses to the delivery of healthcare. National licensure also supports virtual care across provincial and territorial borders, which provides greater continuity and timelier access to care.

In addition to the benefits for patients, the additional mobility provided by national licensure also supports physician work-life balance, health, and wellness. This may improve retention rates by making it easier for doctors and hospitals to fill locums (temporary placements) for holidays, parental and educational leaves. Overall, pan-Canadian licensure is one tool to help address regional inequalities in care delivery while supporting cross-border virtual care and enabling physicians to support their colleagues across jurisdictions.

B. National Licensure in Other Regions

Since 2010, Australia has allowed for licensure across all jurisdictions for a broad range of healthcare practitioners. Each profession has a national board that regulates and registers practitioners and develops standards, codes, and guidelines. This approach ensures standardized high-level medical competence and quality of care while making it easier for health professionals to work across different states — in person and virtually. Since implementing all-jurisdiction licensure, there's consensus that the new system is working well and has led to significant improvements in terms of workforce mobility, patient safety, and better data for workforce planning.³³

C. Ongoing progress in pursuit of a National Licensure



Recommendations

1. Create a pan-Canadian national licensing system.

- a. A common concern about National Licensure is that this would contribute to a mass exodus of physicians from rural and remote communities to bigger cities.⁴⁵ However, proponents cite that this notion is perpetuated by continued biases that rural and remote work is inherently worse than urban practice. Additionally, national licensure can be helpful in improving access to quality care for rural communities—making it easier for locum staff to visit and bolstering healthcare infrastructure across the country.
- b. Physicians who seek national licensure can pay an additional fee in addition to their provincial fees to mitigate administrative costs, and subsidies can be implemented to improve equitable access.⁴⁶
- c. During the transition to national licensure, premiers of each province and territory should work alongside provincial colleges to align and waive, at least temporarily, region-specific requirements for licensing.⁴⁶
- d. A standardized training program can be used to provide physicians with the necessary skills to practice in limited resource settings and in Indigenous communities.⁴⁶

2. Fund a Canadian Digital Registry of health professionals.

- a) A primary step is funding a Canadian Digital Registry of health professionals to verify credentials and licensing requirements. A leadership team is needed to ensure equitable representation and negotiation for a platform that suits the needs of Canadians.
- b) A leadership team should work in tandem to support pan-Canadian licensure and ensure equitable representation and negotiation for a platform that suits the needs of Canadians.
- c) Overall, provincial, territorial and federal governments should work in tandem to support pan-Canadian licensure—a step that can improve health access, address burnout, and improve the health of patients across the country.

5) National Workforce Planning

Workforce planning—which is, to put it simply, having the optimal number and mix of healthcare professionals wherever and whenever they are needed—is the cornerstone of a cost-efficient and equitable healthcare system.⁴⁷ Such practices can improve accessibility to medical services and reduce wait times; address backlogs and staff shortages exacerbated by the COVID-19 pandemic, and, by extension, reduce healthcare costs. Foundational to effective workforce planning is the collection and dissemination of high-quality, comprehensive data pertaining to a myriad of health professions. Currently, in Canada, no such national workforce database exists: a reality that hampers efforts to more effectively utilize our healthcare workforce.

Numerous independent databases exploring the supply, demand, migration, education, and employment of various groups of healthcare workers exist at the provincial, territorial, and federal levels.⁴⁸ However, the non-linkable and disparate nature of these databases provides an incomplete and discordant view of the Canadian healthcare workforce. Criticisms of these databases can be understood as follows: reporting on healthcare professions on an individual basis fails to consider the interdisciplinary delivery of healthcare; the paucity of data on Indigenous identity, visible minorities, and other sociodemographic factors renders an equity-based examination impossible, and the fact that data are not publicly available hampers workforce planning.⁴⁹

In Australia, a national workforce database for health practitioners—the National Registration and Accreditation Scheme—has brought about initiatives promoting increased representation of Indigenous groups across healthcare fields. Centralized data collection facilitates the identification of roles in which cultural expertise of Aboriginal and Torres Strait Islanders would enhance provision of healthcare services and/or leadership.⁵⁰ This information is used to guide strategic workforce planning and organizational design, showing how a national workforce database can be used to build a more diverse healthcare workforce and a more culturally safe environment for patients. By 2031, it is projected that Aboriginal and Torres Strait

Islanders will make up 3.4% of the healthcare workforce, thereby matching their representation within the Australian population.⁵¹

In Canada, Call to Action #23 by the Truth and Reconciliation Commission calls for “an increase in the number of Aboriginal professionals working in the healthcare field”. Currently, initiatives to accomplish this goal largely remain in the development phase.⁵² The development of a national workforce database, along with consultation with Indigenous health initiatives and leadership, could be used to guide the design of a recruitment pipeline for more equitable health services.

The National Health Service (NHS) in the United Kingdom employs a publicly available database known as the workforce Minimum Dataset (wMDS) to guide policy recommendations geared towards quelling the shortage of general practitioners.⁵³ Identification of supply and demand factors by geographical area, which helps delineate areas in which shortages are most severe, has allowed for gaps to be filled through the creation of interprofessional teams and new roles: clinical pharmacists, physiotherapists, physician associates, and paramedics (a practice known as “skill mixing”).⁵³ While these programs are still in their infancy and have not yet yielded significant cost savings or improvements in efficiency, patients are accepting of this new model of primary care and report that it is easier to book appointments.⁵⁴

Recommendations

1. **Increase funding for health workforce research.**
 - a. The 2007 Framework for Pan-Canadian Human Resources Planning emphasized that “the status quo approach to planning has the potential to create both financial and political risks, [and] to limit each jurisdiction’s ability to develop effective sustainable health delivery systems”.⁵⁵ Since then, investments into health workforce research have made up less than 3% of federal, provincial, and territorial health services and policy research funding.
 - b. Accordingly, there has been no significant demonstrable change in the aforementioned status quo of workforce planning and forecasting.
2. **Establish an organization to amalgamate information collected by provincial and federal initiatives (e.g. CIHI, Health Professions Database in Ontario) and generate a publicly available database.**
 - a. Such an undertaking should involve all healthcare professions in order to reflect the modern focus of interdisciplinary delivery of medical services.
3. **Regular inquiries should be conducted using national databases to identify pay gaps and examine the representation of various groups across different healthcare fields over time.**
 - a. Ensure that centralized databases from recommendation #2 can be used to answer and address questions about inequity by collecting data on disability status, gender, Indigenous status, and visible minority status.

Conclusion

Whether the focus is on training positions and residency spots, barriers to accessing primary care, retention of healthcare workers, national licensure or workforce planning - there are numerous issues within medical training and practice that the Canadian healthcare system would highly benefit from addressing. Improvements in these areas will lead to better access to care for patients, as well a more robust and sustainable healthcare system.

Summary of Recommendations

Increased Training Positions

1. Increase funding for residency training program spots to achieve the optimized 1.2:1 ratio.
2. Allocate residency positions based on population/regional need and employment capacity per specialty.
3. Use the right criteria to determine residency capacity, not institutional (staff or administrator) self-interest.

Incentivizing Primary Care

1. Implement policies and programs that recruit Indigenous and rural students into medical school.
2. Increase the number of rural and remote sites for medical education.
3. Contracts for residents working in rural settings should maximize the rural learning experience and resident autonomy.
4. Support generalist training throughout trainee's medical education.
5. Provide incentives to encourage individuals to join the healthcare workforce such as student debt forgiveness and equitable pay.

Retention of Healthcare Workers

1. Measure, identify and address impact of physician administrative burden
2. Build up an integrated health workforce

National Licensure

1. Create a pan-Canadian national licensing system.
2. Fund a Canadian Digital Registry of health professionals.

National Workforce Planning

1. Increase funding for health workforce research.
2. Establish an organization to amalgamate information collected by provincial and federal initiatives (e.g. CIHI, Health Professions Database in Ontario) and generate a publicly available database.
3. Regular inquiries should be conducted using national databases to identify pay gaps and examine the representation of various groups across different healthcare fields over time.

Acknowledgements

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