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912 737

December 28, 2011

Honourable Mike de Jong  
Minister of Health Services  
Victoria, BC

Dear Minister de Jong,

As a result of continuing concerns raised about the difficulty facing BC women and men who study to become doctors at medical schools outside North America, you encouraged me to investigate the situation and report back to you with recommendations by December 31, 2011. Attached is my report with supporting documentation for your consideration. Over the past two years I have literally met with hundreds of stakeholders.

One of the key findings from my many conversations with those involved in this issue, is the need for the UBC Faculty of Medicine residency application and selection process and policies to be based on the principles of clarity, transparency, fairness and merit for all applicants to the CaRMS first and second iterations. That is clearly not the case at present and my report speaks to that reality.

Secondly, making the residency application and selection process fair for BC graduates from medical schools abroad, would cost nothing if the proposed policy and regulatory changes were adopted for the current number of available residencies.

Thirdly, expanding the number of residencies to take advantage of the increase in applicants from the UBC Faculty of Medicine, BC medical school graduates from abroad and immigrant physicians seeking assessment and re-certification for licensure in BC would require target funding to increase by 57 the number of primary care residency positions. That funding could be realized by ceasing to sell capacity to Saudi Arabian and other foreign nationals which does not now go toward expansion of the BC residency program and by increasing the efficiency of residency training, support and administration. It could also be achieved by accepting the offer of BC mayors who are willing to invest in residencies.

I know you are in receipt of a recently prepared briefing note (included at Tab 7 in the report binder) that was authored by the UBC Faculty of Medicine and apparently with input from the Ministry of Health Services and the Ministry of Advanced Education. This is disappointing and perplexing. I was previously told in a letter from UBC President Dr. Stephen Toope that I would be invited to participate in the crafting of this document, but that did not occur. I am unable to respond to the data in that briefing note, but in my report I have used publicly accessible data from the CAPER database from the past 5 years. I have been unsuccessful in my attempts to retrieve a copy of the MOU signed between MoHS,

AVED, and UBC Faculty of Medicine with respect to some of these issues in 2010. Perhaps your office could get both of us a copy as it is relevant to the problems we are seeking to address.

Many people have helped in verifying the information contained in this report to ensure its accuracy of fact. I look forward to meeting with you shortly to review my findings and recommendations.

Sincerely,

A handwritten signature in cursive script, appearing to read 'M Stilwell'.

Dr. Moira Stilwell

*MLA Vancouver-Langara*

cc: Naomi Yamamoto

**ACTION PLAN FOR  
REPATRIATING  
BC MEDICAL STUDENTS STUDYING ABROAD**

**Prepared for the Honourable Mike de Jong**

**Minister of Health Services**

**By**

**Moira Stilwell, MLA**

**December 2011**

## EXECUTIVE SUMMARY

This report was prepared in response to a request from the Minister of Health Services to inform him on what has been learned in the past year from a range of stakeholders regarding the situation of BC medical students studying medicine outside of North America. These students and their parents have expressed significant difficulty in returning to their home province after completing their undergraduate medical school training. The primary challenge they face is in regard to accessing residency positions in BC. The vast majority of these medical school graduates want to practice as fully licensed physicians and surgeons in this province. They want to serve in meeting the health care needs of the population for decades to come. I was specifically requested to investigate and develop recommendations on how these British Columbians can be assisted in accessing primary care residency opportunities (family practice, primary care general surgery, primary care obstetrics and gynecology, community based psychiatry, anesthesia and primary care internal medicine) in British Columbia.

Ensuring a sufficient supply of qualified physicians and surgeons over the next three decades requires thoughtful and committed action now. We have British Columbians graduating from medical schools here and abroad, but they are not all being made available to meet the anticipated needs of our growing population in BC's communities.

Planning for our physician workforce needs can be enhanced by qualifying and employing the full capacity of medical school graduates. This is particularly the case with young women and men raised in British Columbia who are now studying in excellent medical schools abroad. These are medical schools located in countries from which BC has traditionally drawn licensed physicians who were citizens of those nations.

These BC medical students and their families are covering the full cost of their medical education in many highly respected medical schools. They want to practice medicine in British Columbia. They want to use their education and training to provide quality primary health care to the residents of this province. But when they apply for residency positions specifically in British Columbia, they face unique barriers which virtually exclude them from placement in those positions, barriers not faced by UBC graduates, Canadian medical school graduates or applicants from the United States. To make this a fair, merit based process now through changes in policy costs nothing!

This report proposes a number of actions which can benefit the people of British Columbia and meet the demand for physicians in the future. BC has an aging physician and surgeon workforce heading for retirement. We have the opportunity to support the next generation of doctors who want to serve in communities across the province. Taking concrete steps to repatriate young

British Columbians studying medicine abroad will require a negligible investment, one that new resources are willing to underwrite.

There are 256 Canadian residency positions in BC and 26 IMG (International Medical Graduate) residency positions for fully trained immigrant physicians seeking licensure, administered by the UBC Faculty of Medicine. Graduates from the UBC Faculty of Medicine are virtually guaranteed a placement in the first round of the Canadian Residency Matching Service (CaRMS). So are applicants from medical schools in the rest of Canada and the United States. But BC medical graduates from a recognized medical school in another country face barriers which impede their qualifying for a residency placement in their home province.

This situation exists despite commitments made in the 2008 and 2010 Throne speeches to make changes to the way all BC medical undergraduate residency applicants are treated. Those throne speeches committed government to increase access to residencies for Canadians who received their medical undergraduate training outside Canada so they could practice in BC if successful in their clinical training. In the government's most recent throne speech there was a stated emphasis on ensuring job opportunities for British Columbians. No new funding has been allocated in the provincial budget to change the status quo, even though there is a fiscal plan to increase the number of IMG residencies over the coming years.

This report will clarify the difference between immigrant physicians who are fully trained (undergraduate and post graduate residency) graduates from a foreign medical school seeking licensure in BC and BC undergraduate medical students who attend outstanding medical schools primarily in English speaking countries outside North America seeking their first post graduate residency training position in BC. The report will explain the CaRMS residency matching process and the unique policies set by the UBC Faculty of Medicine in regard to BC medical students abroad applying for a BC residency position. The information in this report will illustrate why changes are needed and how they can benefit not just the BC medical students studying abroad, but how they can help us achieve our policy objectives for a sustainable health care system. Finally, this report will identify specific recommendations and how they can be achieved.

Over the past six months, conversations on this issue were held with a variety of interested parties including the Premier of British Columbia, MLAs, MPs, mayors from across the province, the President of UBC, the Dean of Medicine, members of the faculty of medicine, program directors involved in residencies, practicing physicians, health authority executives, BC students studying medicine abroad, parents of these students and Ministry of Health Services, Ministry of Advanced Education and Ministry of Attorney General staff. **Tab 1** provides a full listing of who was consulted. The outcome of those conversations points to these realities:

1. We are not making use of all the BC medical students who want to practice medicine in this province.
2. The goal of having a more community based approach to health care can be achieved by utilizing all BC medical graduates through merit based, equitable and transparent residency policies.
3. Immigrant International Medical Graduates who are already physicians in their home countries will continue to have full access to the IMG-BC program for re-credentialing residency positions with more to be added over time.
4. BC women and men studying medicine in other countries pay their own way through medical school, a savings to the provincial budget.
5. There are systemic policy barriers and systematic procedural barriers that hinder BC medical students abroad from competing fairly for residency positions in their home province.
6. Throne speech commitments to increase the number of medical residencies for the doctors we will need should be funded. Mayors have stated at the 2011 UBCM gathering that they are willing to invest in making more residencies a funded reality.
7. There are physicians and surgeons in health authorities across the province eager to train the next generation of doctors.

The recommendations in this report are responsive to meeting our shared interest in utilizing all potential BC medical school graduates no matter where they did their undergraduate medical education. The people of this province expect us to lead, not to react in meeting the challenges of providing quality community based health care now and in the future. Taking the following actions will demonstrate our leadership on this issue:

1. Mandate a principle based approach in establishing policies for all medical school graduate residency applicants to qualify for BC residencies which is fair, equitable, merit based (the best qualified applicant for the position), transparent and accountable to all parties.
2. Review and restructure policies around qualifying exams to allow applicants to access them in a timely manner even if it means applying fees to facilitate this part of the process.
3. Align policies and regulations for Canadian students studying medicine abroad to be identical to those currently in place for Canadian and American trained medical school graduates applying for BC residency positions.

4. Continue to support and expand the BC IMG program to serve immigrant post-graduate physicians for assessment, retraining and re-certification to be licensed in British Columbia.
5. Clarify when evaluations for BC medical graduates abroad will be required to qualify for CaRMS residency matching, beyond existing examination procedures and demonstrate how they can fulfill these criteria in the year that they graduate.
6. Establish an oversight mechanism to ensure that these recommendations are carried out consistently and fairly within British Columbia.
7. Increase the number of residencies by 57, resulting in 1.4 positions per BC medical school seats, an optimal number to allow for a high functioning, fair, merit based match, over the next 4 years beginning with an immediate increase in 2012 of 20 positions for the next round of CARMS residency matching.
8. Meet with BC mayors to determine how they can provide fiscal support to implementing an increase in residency positions.
9. Convene a series of dialogues with BC health authorities to identify physicians and other required staff who can act as residency supervisors for the increase in positions.
10. Establish a principle based approach to regularly review the necessary number of residencies in British Columbia to keep pace with the supply and demand for all types of physicians and surgeons.

Our population needs these gifted young physicians to ensure that we maintain our status as a healthy population for a vibrant economy and productive workforce in the decades before us. Isn't it time we started treating BC young women and men who are studying medicine abroad as part of the solution to our physician supply needs rather than a problem? Why should other provinces benefit from the training these graduates offer when they could be contributing to the health and well being of British Columbians? Over the past couple of decades BC has relied on in-migration from other provinces and countries to meet physician supply needs. This practice is one of diminishing returns in the current global environment. The ethics of recruiting and accepting physicians from countries which sorely need qualified physicians is not longer acceptable.

With clear and committed leadership to implement the above recommendations, we can resolve this often contentious issue and meet the future needs for physicians with highly qualified British Columbian women and men who have successfully trained in highly respected medical schools

abroad. This can be done without diminishing opportunities for immigrant physicians seeking retraining residency placements to meet licensure requirements. It can be done without treating BC's medical students studying abroad as second rate applicants just because they did not attend the UBC Faculty of Medicine or another Canadian medical school. Residency training exists to ensure that all well educated medical graduates have the opportunity to learn the practical clinical skills which will make them fully qualified to practice as a physician or surgeon.

The fiscal resources exist to implement an increase in BC resident training positions. The physician supervisor resources are ready to take on resident candidates across the province. Now is the time to take action to put all the resources at hand to work in expanding residency positions which give BC medical graduates abroad a fair opportunity to return home, complete their training and go to work for a healthy British Columbia.



## **The Current Reality**

While the UBC Faculty of Medicine admits 288 first year medical students every year, many qualified applicants are turned away. Some of them are accepted at other Canadian medical schools. Even more are accepted at prestigious medical schools in other countries. All are British Columbian medical students eager to serve BC's growing population.

More than 500 British Columbia residents are studying in medical schools abroad as are 3,000 other Canadian medical students. British Columbia has the second highest number of these students next to Ontario with approximately 1,500 students.

About 60 - 100 British Columbia medical students studying abroad graduate each year. Most want to return to BC for a residency to complete their training and become licensed physicians and surgeons serving in this province. But they face barriers to fairly competing for the first iteration of the CaRMS annual residency matching process. The restrictions faced by BC medical graduates abroad are not faced by American applicants nor Saudi Arabian and Gulf State graduates admitted to post graduate medical training in BC each year. While the Ministry of Health Services funds residency positions, the UBC Faculty of Medicine sets the regulatory policies for qualifications required to be considered for a BC residency position. Current UBC residency regulatory policies for BC medical graduates who studied abroad makes it virtually impossible for them to qualify for the 1<sup>st</sup> iteration of CaRMS in the year they graduate. This results in a delay of a year or more after graduation before they can apply to CaRMS under the BC specific policies. See **Tab 2** which details the UBC medical school regulatory policies for medical graduates applying to the CaRMS 2012 residency match and compares them with Manitoba's policies.

We are not using the full potential of all the British Columbia medical school graduates who want to work here. We will need the UBC medical graduates, the BC medical graduates from abroad and IMG immigrant physicians to meet population health needs in the decades ahead. Unfortunately, they are not all treated fairly when it comes to accessing residencies to complete their medical education.

When BC graduates from medical schools in other countries are required to undergo lengthy assessments to be considered for CaRMS 1<sup>st</sup> iteration of matching, they miss the deadline and lose an entire year in which they could be acquiring clinical skills for licensure.

A healthy British Columbia is critical to the continued prosperity of this province. A healthy population supports social and economic stability, which in turn attracts significant investment. Healthy working families with access to quality health services are core to a vibrant British Columbia.

Today, more than ever, British Columbians want to stay healthy. When they are injured or ill they expect access to well trained health professionals. Having a caring, qualified physician is important to families in their efforts to stay healthy throughout the stages of life. Doctors, along with other health professionals, make the difference in preventing health problems and treating them effectively when they do occur.

Ensuring a sustainable supply of doctors providing a range of primary care services, in communities where they are needed, is core to sound public health policy for the 21<sup>st</sup> century. How doctors are educated and trained to provide the right services is important to achieving government's objectives for the long term viability of health care in this province.

Tomorrow's primary care physicians, general surgeons and psychiatrists are in medical schools today, not only in British Columbia, but in countries abroad. Young women and men, residents of BC and citizens of Canada, are studying to be doctors here and around the world.

Action now on residencies for all qualified British Columbians graduating from a recognized medical school is essential to meeting our need for physicians and surgeons over the next 30 years.

#### **RECOMMENDATION:**

**Align policies and regulations for Canadian students studying medicine abroad to be identical to those currently in place for Canadian and American trained medical school graduates applying for BC residency positions.**

#### **BC Medical Students Abroad and Immigrant Physician Medical Graduates**

Who are the BC medical students studying abroad? They are women and men who are residents of this province. They are Canadian citizens. Most were born here and grew up in BC communities. They know the culture of our province. They are fluent in English. They are like Carla, a medical student studying abroad, who grew up in a BC First Nations community. Like many of her colleagues, she has long dreamed of becoming a doctor and practicing in British Columbia. She applied to the UBC Faculty of Medicine along with more than 2,000 other applicants. She is bright, hard working and committed to practicing family medicine in BC.

She also applied to other medical schools. While she wasn't accepted at UBC, she was successful in gaining admission to a prestigious medical school in Ireland. Like many of her fellow Canadians studying medicine abroad, she took medical elective courses and clinical placements here in BC and in other provinces to support her eventual application for a BC residency position. When it came time to apply for a residency in September of 2011, her first

choice in applying to the CaRMS residency matching service, was a placement in British Columbia. She wrote all the necessary qualifying exams set by the Medical Council of Canada. But, the policies set by UBC for students who went to a medical school outside North America, made it almost certain that she would not be placed in this province. The policies of Ontario, Saskatchewan and Manitoba were not as restrictive so she is seeking a residency in one of those provinces as well as in the United States. This is a loss for BC communities.

Richard is another example of a BC medical student studying abroad who wants to finish his training in BC. He grew up in BC, raised by Vietnamese parents who came to Canada as "boat people". Richard got his undergraduate degree here in BC and is studying medicine at an excellent school in Australia. He has borrowed money to finance his education. He wants to live and work in BC and says he is disappointed to see that no one from the medical school he attends was accepted for a residency in BC last year and that in his words: "It would be nice to get a fair shake"

BC medical graduates from medical schools abroad deserve "a fair shake" in competing for residency placements in BC. They are not second class graduates as is often stated or implied. Many have achieved qualifications which exceed medical graduates educated at UBC or other Canadian medical schools. They do very well on the qualifying exams set by the Medical Council of Canada and required by CaRMS to compete in the matching process. They and their families have paid for their education out of their own pockets, saving the province of British Columbia millions of dollars.

According to data extracted from the CAPER database (an independent database maintained by Canadian medical schools), between 130-160 IMG's annually finish their residency training in British Columbia. Over 80 % are studying here on visas. Most of these already fully trained physicians are sponsored by foreign governments. Approximately 15 % are immigrants or refugees and only 2-3% are likely British Columbians who have returned. This is in sharp contrast to the 60 - 100 BC women and men who would like to have a fair chance to compete on a merit base for BC residency positions. In reality less than 5 % return to BC for postgraduate training. **(Tab 3 CAPER data on physician residents for BC)**

A recent five year review of the throughput of IMG-BC immigrant physicians revealed that of the 143 candidates, only one was a graduate of a medical school in the English speaking world and it is not clear whether that candidate was an immigrant or not. In essence, although we know that the majority of BC students studying medicine abroad would like to return, because of the untenable UBC policy at least as far as the first iteration of the CaRMS match is concerned, none do. For more information see **Tab 4: Solutions to the Medical Doctor Shortage in BC.**

Changes to policies and procedures would allow BC graduates abroad to compete on a more equitable basis of merit, fairness and transparency with Canadian and American medical school graduates in the first iteration in the annual CaRMS residency matching process. The BC

graduates are not appropriate for or well served by the residency placements policies established not for them but to help qualify immigrant physicians who have graduated and have completed their residencies in foreign medical schools and are seeking retraining and credentialing for licensure to practice in this province. For more information on the performance of this group of physician applicants to BC residency positions see **Tab 5: How do IMGs compare with Canadian medical school graduates in a family practice residency program?** by Rodney F. Andrew MB BS CCFP FCFP. This program was established to resolve a human right's case by immigrant physicians in the 1990s against the government. The Ministry of Health Services and the UBC Faculty of Medicine has repeatedly stated their belief in maintaining the IMG-BC program as critical to avoiding further human rights challenges from immigrant physicians living in this province. BC medical students studying abroad and their families, respect this need of government and wonder why this concern over human rights and charter challenges is not extended to them by the UBC Faculty of Medicine.

BC medical graduates abroad are not immigrant physicians. They are residents of BC who, like students in many other professions, received their education at universities in other countries. They bring the richness of that educational experience to their future practice. Unlike physicians who have come from other countries seeking licensure to practice here, BC graduates of medical schools abroad are recent graduates seeking their first residency position. While the medical education program of the UBC Faculty of Medicine has its strengths, is not the only model that adequately trains under graduate medicals students for residency positions.

The BC IMG residency program was designed for women and men who have immigrated to British Columbia and who were practicing physicians in another country. They have already completed certification in another country, but their qualifications do not meet the standards for licensure in this province. Most of these applicants have been practicing medicine in another country. The BC IMG residency program is designed to help those immigrant physicians who qualify, to meet the standards for licensure set by the British Columbia College of Physicians and Surgeons. There are 26 BC IMG residency positions administered through St. Paul's hospital for qualifying immigrant physicians. This program provides a valuable route to immigrant physicians who meet the admissions criteria. While the number of these IMG residencies is expected to expand from 26 to 58, there is no indication that BC medical graduates from abroad will be in a better position to compete for these positions in 2015/16 than they are today. The Ministry of Health Services has established a funding formula for the increase in seats. What is unknown is when the actual budget allocations will appear in the 3 year budget plans submitted to Treasury Board by the Ministry.

The Ministry of Health Services and the UBC Faculty of Medicine maintain that BC medical students studying abroad must be treated the same as immigrant physicians applying to the BC IMG program because to do otherwise would be a violation of human rights and the Canadian

Charter of Rights. Yet no argument to clarify this position has been provided. How can a recent BC medical school graduate who has had no post graduate medical education and never practiced medicine, be considered equivalent to a physician from another country who has had full clinical training including residency and practical experience in their country?

While the Ministry of Health Service and the UBC Faculty of Medicine emphasize the difficulty of comparing medical schools abroad to Canadian and American medical schools accredited by organizations in North America, the 2011 BC provincial restrictions for the CaRMS IMG stream, clearly state that an IMG candidate must “Hold a medical degree from an acceptable medical school on the Foundation for Advancement of International Medical Education and Research (FAIMER) list. (Mandatory).” While the Manitoba policy for the 2011 match states: “The first iteration of the CaRMS match will be open to both International Medical and Canadian Graduates. US graduates are given reciprocity with Canadians.” While in the Saskatchewan policy for the 1<sup>st</sup> iteration in the same matching year states: “The IMG Stream is open to International Medical Graduates who have resided in Canada for a minimum of two years (at the time of application and who have never been licensed to practice medicine in Canada).”

It is little wonder then that BC medical graduates abroad find the policies of British Columbia unfair, difficult to understand and a barrier to accessing a residency here. Not surprisingly, more BC medical graduates from abroad list Saskatchewan or Manitoba as a first choice for a residency. And they will likely remain in those provinces after their residency is finished. British Columbia’s policies favor the IMG who is an immigrant physician seeking recredentialing than the newly minted BC medical graduate abroad seeking their first formal clinical residency.

Action to address these inequities toward BC medical graduates abroad is critical to achieving greater fairness for these candidates and avoiding human rights complaints.

#### **RECOMMENDATIONS:**

**Mandate a principle based approach in establishing policies for all medical school graduate residency applicants to qualify for BC residencies which is fair, equitable, merit based (the best qualified applicant for the position), transparent and accountable to all parties.**

**Continue to support and expand the BC IMG program to serve immigrant post-graduate physicians for assessment, retraining and re-certification to be licensed in British Columbia.**

## Canadian Residency Matching Service (CaRMS)

CaRMS is a non-profit organization established by the provincial Ministers of Health to manage the matching of qualified medical school graduates in Canada, the United States and other countries to available residency positions across a range of medical disciplines. Medical school graduates apply electronically to note their priorities in residency training positions and preferred locations in Canada. Individual provinces can set additional application requirements beyond those stated by CaRMS. CaRMS also involves decision making by program directors in every province in determining who they will accept into their residency positions. Program directors at UBC have expressed their frustration that they are not able to evaluate, let alone pick, all potential candidates which would include BC medical students graduating from abroad in making merit based decisions. Based on the choices made by program directors, applicants are then matched by computer through the two iterations. The first iteration has all entry residency positions for every category of medical and surgical practice -available. The later second iteration lists the small number of leftover unfilled residency positions and is open to additional candidates who may be excluded from the first iteration for various reasons defined by individual provinces.

**Tab 2** provides a comparison in the wide range of policy differences set by provinces showing the 2012 province specific requirements set by BC in contrast to Manitoba. In contrast to Manitoba whose policy is based on a competitive process for Canadian Medical Graduates and International Medical Graduates, BC runs a parallel process which reduces access to residencies for IMGs and does not reflect a merit based approach: the best candidate for the available residency positions.

The application process for the March 6, 2012 residencies “match day” is underway. Canadian medical graduates abroad applying for positions will be or already have taken the necessary exams. BC medical students abroad are routinely reporting that they are being told by UBC they are not qualified to apply nor allowed to apply to the 1<sup>st</sup> iteration of the CaRMS match. In addition it is a confusing situation for them as to which exams are truly required and does “optional” really mean optional? Another challenge is access to exams including offering the exams in a timely manner to avoid missing key dates in the CaRMS application and requirements timelines. In addition, to facilitate access to exams such as the OSCE, allowing applicants to pay the necessary exam fee is something that most are willing and prepared to do.

The current BC policies as implemented by UBC related to CaRMS applications to residency reflect the view that BC medical graduates abroad are the same as immigrant physicians who are full international medical graduates seeking recertification for licensure in BC. The BC medical students abroad are forced to navigate a program which was never put in place with them in mind. Furthermore, UBC has lumped all internationally educated applicants into the same IMG

pool and BC recent medical school graduates from abroad are not allowed to compete fairly for the limited pool of residencies in the BC IMG residency program reserved and designed for immigrant physicians. This is another reason why BC medical graduates abroad should be treated more like Canadian and American medical school graduates seeking their first post graduate training experience.

Action on changes to BC residency application policies will result in a fair, transparent and merit based application and selection process for all BC medical graduate applicants.

#### **RECOMMENDATIONS:**

**Clarify when evaluations for BC medical graduates abroad will be required to qualify for CaRMS residency matching, beyond existing examination procedures and demonstrate how they can fulfill these criteria in the year that they graduate.**

**Review and restructure policies around qualifying exams to allow applicants to access them in a timely manner even if it means applying fees to facilitate this part of the process.**

#### **Increasing Residency Positions in BC**

In previous conversations with Dr. Gavin Stuart, UBC Dean of the Faculty of Medicine, he identified two critical issues to increasing the number of residency positions in BC: Residency Teachers and Funding. This is an understandable need if more residencies are to be made available for the increase number of UBC graduates, BC medical graduates abroad and immigrant physicians in the BC IMG program.

As a result of conversations at the September 2011 UBCM, mayors from communities around the province expressed their desire to have residents training in their cities and towns. In addition, several mayors are prepared to commit fiscal support to help fund the cost of a residency position estimated at \$100,000/year.

Conversations were also held with health authority executives and local physicians who indicated their strong interest in supervising new residents and providing training environments to support new residency positions.

In discussions with the current and past leadership of the BC Medical Association and as indicated in their attached report **Doctors Today and Tomorrow, Planning British Columbia's Physician Workforce** (Tab 6), they are supportive of the approaches advocated in this report.

Program Directors past and present at the UBC Faculty of Medicine responsible for residency supervision, are also interested in developing and implementing creative approaches to increase required funding for residencies as well as tapping into existing practitioners who are wanting to help train new primary care practitioners for BC communities. These partnerships are essential to increasing the number of residencies in British Columbia.

Action now to utilize new funding and teaching resources can be achieved.

#### **RECOMMENDATIONS:**

**Increase the number of residencies by 57, resulting in 1.4 positions per BC medical school seats, an optimal number to allow for a high functioning, fair, merit based match, over the next 4 years beginning with an immediate increase in 2012 of 20 positions for the next round of CARMS residency matching.**

**Meet with BC mayors to determine how they can provide fiscal support to implementing an increase in residency positions.**

**Convene a series of dialogues with BC health authorities to identify physicians and other required staff who can act as residency supervisors for the increase in positions.**

**Establish a principle based approach to regularly review the necessary number of residencies in British Columbia to keep pace with the supply and demand for all types of physicians and surgeons.**

#### **Responding to Opportunity**

The 21<sup>st</sup> century challenges facing our health care system require 21<sup>st</sup> century solutions. This is especially true when looking at meeting the supply and demand realities for primary care physicians and surgeons.

This report has illustrated the barriers facing British Columbians studying at medical schools abroad when they seek fair, merit based opportunities to compete for residency positions in this province. The current policies set by the UBC Faculty of Medicine, which the Dean states are supported by the Ministry of Health Services bureaucracy, make it virtually impossible for these well educated students to be successful in obtaining a residency in BC.

This situation needs to change if we are going to be well prepared to meet the future primary care physician resource needs of this province. Our current workforce of physicians and surgeons



will be retiring in greater numbers over this decade. Our population is growing and will continue to do so.

By making the residency application policies more open as is the case in other provinces, and without spending any new money, we could see the best qualified students, whether educated at the UBC Faculty of Medicine or at a highly respected medical school abroad, being placed on a fair, merit based approach in existing residencies.

While the provincial government clearly faces economic challenges, we could reallocate funding to support an expansion of residencies up to 57 new positions over the next 4 years. This could be a time limited expansion. It would give us the opportunity to catch up on the need for additional residencies and help repatriate those eager young British Columbians who want to practice medicine in communities across the province.

Concrete, practical recommendations have been offered in this report. Your leadership and that of our government on these recommendations will go a long way to meeting the growing need for new physicians in British Columbia.

#### **RECOMMENDATION:**

**Establish an oversight mechanism to ensure that these recommendations are carried out consistently and fairly within British Columbia.**

#### **RECOMMENDATIONS TO THE MINISTER OF HEALTH SERVICES**

- 1. Mandate a principle based approach in establishing policies for all medical school graduate residency applicants to qualify for BC residencies which is fair, equitable, merit based (the best qualified applicant for the position), transparent and accountable to all parties.*
- 2. Review and restructure policies around qualifying exams to allow applicants to access them in a timely manner even if it means applying fees to facilitate this part of the process.*
- 3. Align policies and regulations for Canadian students studying medicine abroad to be identical to those currently in place for Canadian and American trained medical school graduates applying for BC residency positions.*

4. *Continue to support and expand the BC IMG program to serve immigrant post-graduate physicians for assessment, retraining and re-certification to be licensed in British Columbia.*
5. *Clarify when evaluations for BC medical graduates abroad will be required to qualify for CaRMS residency matching, beyond existing examination procedures and demonstrate how they can fulfill these criteria in the year that they graduate.*
6. *Establish an oversight mechanism to ensure that these recommendations are carried out consistently and fairly within British Columbia.*
7. *Increase the number of residencies by 57, resulting in 1.4 positions per BC medical school seats, an optimal number to allow for a high functioning, fair, merit based match, over the next 4 years beginning with an immediate increase in 2012 of 20 positions for the next round of CARMS residency matching.*
8. *Meet with BC mayors to determine how they can provide fiscal support to implementing an increase in residency positions.*
9. *Convene a series of dialogues with BC health authorities to identify physicians and other required staff who can act as residency supervisors for the increase in positions.*
10. *Establish a principle based approach to regularly review the necessary number of residencies in British Columbia to keep pace with the supply and demand for all types of physicians and surgeons.*

## **Individuals and groups consulted**

**Following is a list of specific individuals and groups with whom I met to gather input in regard to the topic of this report:**

The Honourable Christy Clark, Premier of British Columbia

Members of the BC Liberal caucus

MPs Jason Kenny (Minister of Citizenship, Immigration and Multiculturalism), Kerry-Lynne Findlay and Wai Young

Dr. Stephen Toope, President, University of British Columbia

Dr. Gavin Stuart, Dean of Medicine at UBC

Deans of Medical schools in two other provinces

Associate Deans at UBC at Victoria, Kelowna and Prince George Faculty of Medicine campuses

Multiple Department and Division Heads in UBC Faculty of Medicine in Vancouver, Victoria, Kelowna, and Prince George and several in other provinces

BCMA: current president, past presidents, president elect, and current CEO

Multiple clinical Faculty teachers who teach medical students, residents and fellows across British Columbia as well as clinical faculty in other provinces

BC physicians who expressed a desire to be clinical preceptors in the UBC administered residency training system

Many foreign residents and fellows who are sponsored from other countries and are training in UBC Faculty of Medicine residency positions

Representatives of PAIRO-BC

Hundreds of students from BC who are studying medicine abroad and their parents

Current UBC medical students who are Canadians

Medical students from other countries who are doing medical electives in the UBC system

Representatives including president of Society of Immigrant Physicians

Representatives of the College of Physicians and Surgeons of BC including staff and board members

Physicians who are directors of the Royal College of Physicians and Surgeons of Canada

The presidents of UNBC, Simon Fraser and other Canadian universities

Past and current members of the Board of Directors of UBC

Current and past Ministers of Advanced Education and Health Services as well as current members of the BC Cabinet

Current and past Deputy Minister of Health Services and Advanced Education

CARMS Officials

Staff at HealthMatch BC, Ministry of Advanced Education, Ministry of Health Services, Ministry of Jobs, Tourism and Innovation and the Ministry of the Attorney General

30 plus mayors in BC who are willing to fund residencies for young physicians from all over BC to come home and serve in their communities

CEOs of all health authorities (except PHSA), VPs of Medical Affairs and Quality Assurance

Dr. Rod Andrew-founder of the BC program for immigrant physicians at St Paul's Hospital

Mr. David Lunny, Barrister and Solicitor (who won BC immigrant physicians rights claim)

# Comparison of CaRMS Province Specific Policies for BC and Manitoba

## British Columbia UBC Faculty of Medicine policies for the 2012 R-1 match

### 1st Iteration

The 1st Iteration of the CaRMS match will include two parallel streams; Canadian Medical Graduate (CMG) Stream and International Medical Graduate (IMG) Stream, each having designated positions. There will be no cross-over or transfer between the two streams. Candidates must be Canadian Citizens or Permanent Residents of Canada to be eligible for either stream.

#### CMG Stream

The CMG stream is limited to graduates of LCME/CACMS-accredited medical schools in Canada and the United States, and graduates of schools of osteopathic medicine in the United States and is restricted to those who have no previous postgraduate training.

Candidates must be Canadian Citizens or Permanent Residents and must provide proof by submitting one of the following verifications to CaRMS by the Rank Order List deadline. No allowances for late submission. No other forms of verification acceptable:

- Photocopy of Birth Certificate Issued by an authority in Canada with any photo ID, or
- Photocopy of Canadian Passport, or
- Photocopy of Canadian citizenship certificate, Records of Landing; or
- Photocopy of Permanent Resident Card/Canadian Citizen Card - copies of both sides of card must be provided.

#### IMG Stream

International Medical Graduates (IMG's), will be eligible for designated positions in the first iteration. IMG Candidates must meet the following requirements:

Hold a medical degree from an acceptable medical school on the Foundation for Advancement of International Medical Education and Research (FAIMER) list. **(Mandatory)**

Have completed Phase II of IMG-BC Assessment Program application and able to submit a passing NAC OSCE or BC OSCE. The most recent OSCE results will be considered. **(mandatory)**

Have IMG-BC Program clinical assessment. **(optional)**

Must meet all eligibility criteria for entry to IMG-BC Assessment Program. The requirements for the Assessment Program for BC can be found on their website at <http://www.imgbc.med.ubc.ca>

A Return-of-service (RoS) condition is attached to these positions. A draft of the contract can be found on the IMG-BC website: <http://www.imgbc.med.ubc.ca>

Candidates must be Canadian Citizens or Permanent Residents and must provide proof of citizenship by submitting one of the following verifications to CaRMS by the Rank Order List deadline. No allowances for late submission. No other forms of verification acceptable:

- Photocopy of Birth Certificate Issued by an authority in Canada with any photo ID, or
- Photocopy of Canadian Passport, or
- Photocopy of Canadian citizenship certificate, Records of Landing; or
- Photocopy of Permanent Resident Card/Canadian Citizen Card - copies of both sides of card must be provided.

### 2nd Iteration

The 2nd iteration will be open to all qualified applicants defined as follows:

- Unmatched CMG's
- Physicians currently in training and in practice
- Eligible IMG's with or without a BC IMG Assessment

To be eligible for the second iteration, IMG's must meet the following requirements:

Hold a Medical Degree from an acceptable medical school on the Foundation for Advancement of International Medical Education and Research (FAIMER) list

Passed the Medical Council of Canada Evaluating Exam

Taken ONE of the following language proficiency exams and submitted the results (photocopies acceptable) to CaRMS by the Rank Order List deadline:

- TOEFL IBT, with a total score of 95 and a score of 25 on the spoken component. TOEFL score is valid for 2 years from the date taken.
- Academic IELTS with a minimum score of 7 in each component with an overall band score of no less than 7.

**All matched applicants must meet the licensing criteria for registration with the College of Physicians and Surgeons of British Columbia (CPSBC) for postgraduate education. ANY DELAYS IN PROVIDING ALL REQUIRED DOCUMENTATION TO CPSBC MAY RESULT IN A DELAY IN ISSUANCE OF LICENSURE AND A DELAY IN START OF POSTGRADUATE TRAINING BEYOND JULY 1ST. See the CPSBC website for information <https://www.cpsbc.ca/>**

Candidates must be Canadian Citizens or Permanent Residents and must provide proof of citizenship by submitting one of the following verifications to CaRMS by the Rank Order List deadline. No other forms of verification acceptable:

Photocopy of Birth Certificate issued by an authority in Canada with any photo ID, or  
Photocopy of Canadian Passport or  
Photocopy of Canadian citizenship certificate, Records of Landing; or  
Photocopy of Permanent Resident Card/Canadian Citizen Card - copies of both sides of card must be provided.

## **Manitoba**

### **2012 Information**

The University of Manitoba Faculty of Medicine and Province of Manitoba Health Authorities have agreed to the following policies for the 2012 PGY1 match:

The first iteration of the CaRMS match will be open to both International Medical and Canadian Graduates. US graduates are given reciprocity with Canadians.

Remaining positions after the first iteration will be open to both Canadian and internationally-trained medical graduates in the second round, as well as physicians currently training and in practice.

IMG candidates must meet the following requirements:

- Be a graduate of a medical school listed by FAIMER
- Be a permanent resident or citizen of Canada (notarized proof required)
- Have a TOEFL score of at least 100 computer-based (TOEFL-IBT) with minimum score of 25 for speaking and listening, or 600 written
- A pass mark on the MCCEE exam

IMG candidates who match are required to attend mandatory 4-week orientation program in June; remuneration shall be provided, and ACLS certification course if resident program requires it.

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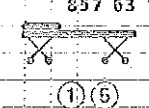
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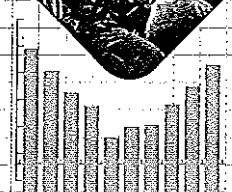
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# 2010 - 2011

## BRITISH COLUMBIA PROVINCIAL REPORT

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## **Explanatory Notes Concerning the Tables**

### **Section A**

#### **New Entries to Post-M.D. Training at all Rank Levels**

"New Entries" refer to physicians entering post-M.D. training. These are physicians who have never been recorded previously on the CAPER database. These data are provided to give the reader the base information on the number of new physicians entering post-M.D. training.

### **Section B**

#### **New Entry Trainees - Re-entry Trainees**

New entry trainees are physicians who were in training for the first time, ie. they have never had a break in their training. A re-entry trainee is a physician who had previously had a break in training and has therefore already probably spent some time in practice. A re-entry trainee as designated in the tables in Section B can be at any rank level, not only the first year of re-entry to training. This distinction is made to indicate which trainees will be entering practice for the first time and those who will not be "new" physicians when they exit.

The proportion of re-entry trainees in each specialty also indicates which specialties have tended to recruit from the physicians already in practice.

#### **Table B-2i - First Year Trainees**

This table contains only the first year trainees - those physicians in training at the R-1 level for the first time. They had never been reported to CAPER in the past. The table gives the initial training field of the leading edge of the group who will become our new physicians in the next 2 - 7 years.

### **Section C**

#### **Post-M.D. Trainees Exiting Training Programs in July, 2010 at the Completion of Post-M.D. Training**

The physicians included in this exit group consist of those who left training at a rank level consistent with completion of training. For example, those who left Family medicine training at a rank of R-2 or higher and medical specialties at a rank of R-4 or higher would be included in this group. It is assumed those who left training at lower rank levels were taking a temporary break in training and would be returning to training. The small number of trainees who exited prior to completion of training are not included in the exit group.

(con't)

**Section D**  
**Where Did Our Trainees Go (D-1)?**  
**and**  
**Where Did Our New Physicians come from (D-1i) ?**

These two tables give two pictures of the geographic mobility of trainees between the time they exited from post M.D. training and where they were located in practice two years later.

***Table D-1***

This table contains the trainees who exited from training in your province at the completion of training. It shows where they were in practice (according to the CMA masterfile) two years later. It also shows the final training field of your residents.

***Table D-1i***

This table contains all of the (Canadian citizens/permanent residents) trainees across the country who exited from training two years ago and were subsequently located in your province in July of the current year. Thus, it gives a picture of where the new physicians, who came to work in your province, did their last year of post-M.D. training and the specialties in which they trained.

## **Section A**

**Post-M.D. Trainees Registered in British Columbia  
Training Programs**

**November 1, 2010**

**(New Entries to Post-M.D. Training at all Rank Levels)**

**TABLE A-1  
 POST-M.D. TRAINEES REGISTERED IN BRITISH COLUMBIA TRAINING  
 PROGRAMS, NOV 1, 2010  
 (NEW ENTRIES TO POST-M.D. TRAINING AT ALL RANK LEVELS)  
 RANK  
 BY  
 COUNTRY WHERE M.D. DEGREE WAS RECEIVED AND LEGAL STATUS**

Training Rank		Canada	Outside Canada		Total
		CC/PR*	CC/PR*	Visa	
Residents	R-1	238	25	7	270
	R-2		1	1	2
	R-3		1		1
	R-4	1	1		2
	<b>Subtotal</b>	<b>239</b>	<b>28</b>	<b>8</b>	<b>275</b>
Fellows	Fellow	1	10	117	128
<b>Total</b>		<b>240</b>	<b>38</b>	<b>125</b>	<b>403</b>

**TABLE A-2  
 POST-M.D. TRAINEES REGISTERED IN BRITISH COLUMBIA TRAINING  
 PROGRAMS, NOV 1, 2010  
 (NEW ENTRIES TO POST-M.D. TRAINING AT ALL RANK LEVELS)  
 (GRADUATES OF CANADIAN MEDICAL SCHOOLS)  
 RANK  
 BY  
 YEAR OF RECEIPT OF THE M.D DEGREE**

Training Rank		M.D. Year				Total
		2004	2006	2009	2010	
Residents	R-1			3	235	238
	R-4		1			1
	<b>Subtotal</b>		<b>1</b>	<b>3</b>	<b>235</b>	<b>239</b>
Fellows	Fellow	1				1
<b>Total</b>		<b>1</b>	<b>1</b>	<b>3</b>	<b>235</b>	<b>240</b>

New Entries: Physicians who have not been reported previously to CAPER. The CAPER data series began in 1988, Canadian graduates who received the M.D. degree prior to 1988 were not included in these data.

CC/PR: Canadian Citizens and Permanent Residents

## **Section B**

### **2010 Post-M.D. Trainees in British Columbia Training Programs**

TABLE B-1a  
2010 POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS  
(REGULAR MINISTRY FUNDED TRAINEES ONLY)  
FIELD OF POST-M.D. TRAINING  
BY  
RANK

University of British Columbia

Field of Post-M.D. Training	Residents							Total	Legal Status CC/ PR*	Entry Status	
	R-1	R-2	R-3	R-4	R-5	R-6	R-7			New Entry	Re-Entry
Family Medicine	117	110						227	227	227	1
Emergency Medicine (CFPC)			9					9	9	8	1
Enhanced Skills: Other Fam. Med. Training			12					12	12	8	4
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>117</b>	<b>110</b>	<b>21</b>					<b>248</b>	<b>248</b>	<b>243</b>	<b>5</b>
Palliative Medicine			2					3	3	3	
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>			<b>2</b>					<b>3</b>	<b>3</b>	<b>3</b>	
Anesthesiology	10	10	10	16	7			53	53	53	2
Public Health and Preventive Medicine	2	3	1	4	3			13	13	11	
Dermatology	3	3	3	3	2			14	14	14	
Diagnostic Radiology	7	7	7	7	7			35	35	35	
Emergency Medicine (RCPSC)	4	5	3	3	4			19	19	19	
Critical Care (Emergency Med.)						1		2	2	1	1
Internal Medicine	42	42	43	6	8			141	141	137	4
Cardiology (Int.Med.)				5	4			14	14	14	
Critical Care (Int.Med.)				1	1			2	2	2	
Endocrinology/Met. (Int.Med.)				3	2			5	5	5	
Gastroenterology (Int.Med.)				2	1			3	3	2	1
Geriatric Medicine (Int.Med.)				3	2			5	5	5	
Hematology (Int.Med.)				3	3			7	7	7	
Infectious Diseases (Int.Med.)				3	2			5	5	5	
Medical Oncology (Int.Med.)				3	2			7	7	7	
Nephrology (Int.Med.)				2	2			4	4	4	
Respirology (Int.Med.)				4	3			9	9	9	
Rheumatology (Int.Med.)	1	1	1	1	3			4	4	4	
Medical Genetics						1		4	4	4	
Neurology	5	5	4	5	6			26	26	26	
Neurology (Pediatrics)	3		1	2	3			9	9	9	
Nuclear Medicine				1	1			2	2	1	1



**TABLE B-1a**  
**2010 POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS**  
**(REGULAR MINISTRY FUNDED TRAINEES ONLY)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**RANK**

**University of British Columbia**

Field of Post-M.D. Training	Residents							Total	Legal Status		Entry Status	
	R-1	R-2	R-3	R-4	R-5	R-6	R-7		CC/PR*	New Entry	Re-Entry	
Pediatrics	14	12	13	5	1			45	45		45	
Cardiology (Ped.)				1	1			3	3		3	
Critical Care (Ped.)				1	1		1	3	3		3	
Endocrinology/Met. (Ped.)				1				1	1		1	
Gastroenterology (Ped.)				1				1	1		1	
Developmental Pediatrics				1				1	1		1	
Pediatric Emergency Med. (Ped.)				1	1			3	3		3	
Hematology/Oncology (Ped.)				1			2	4	4		4	
Nephrology (Ped.)				1			1	2	2		2	
Rheumatology (Ped.)				1	2			3	3		3	
Physical Medicine & Rehab.	2	2	4	1	3		1	12	12		12	2
Psychiatry	22	19	20	14	16			91	91		89	
Radiation Oncology	2	3	2	3				10	10		10	
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>117</b>	<b>112</b>	<b>112</b>	<b>103</b>	<b>92</b>	<b>18</b>	<b>7</b>	<b>561</b>	<b>561</b>		<b>550</b>	<b>11</b>
Anatomical Pathology	2	5	2	3	3			15	15		15	
General Pathology	3	2	1	1	1			8	8		8	
Hematological Pathology		1		1	1			3	3		3	
Medical Biochemistry	2		1	1				4	4		4	
Medical Microbiology	1	1		1				4	4		4	
Neuropathology	1	1		1				4	4		4	
<b>LAB/MEDICINE/SPECIALTIES SUBTOTAL</b>	<b>9</b>	<b>10</b>	<b>4</b>	<b>7</b>	<b>6</b>			<b>36</b>	<b>36</b>		<b>36</b>	
Cardiac Surgery		1		2				3	3		3	
Thoracic Surgery (Cardiac Surg.)							1	1	1		1	
General Surgery	8	7	9	7	8		6	45	45		45	
Pediatric General Surgery								2	2		2	
Vascular Surgery							2	2	2		2	
Neurosurgery	1	2	1	1	1		1	7	7		7	
Obstetrics/Gynecology	9	9	8	8	4			38	38		37	1
Gyn. Oncology							2	2	2		2	

**TABLE B-1a**  
**2010 POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS**  
**(REGULAR MINISTRY FUNDED TRAINEES ONLY)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**RANK**

**University of British Columbia**

Field of Post-M.D. Training	Residents							Total	Legal Status	Entry Status	
	R-1	R-2	R-3	R-4	R-5	R-6	R-7			CC/PR*	New Entry
Maternal-Fetal Med. (Ob.)	3	3	3	4	3	1	2	3	3	3	3
Ophthalmology	3	3	4	2	2			16	16	16	
Otolaryngology - Head and Neck Surgery	6	5	6	7	5			14	14	14	
Orthopedic Surgery	2	3	3	3	3			29	29	29	
Plastic Surgery	3	3	3	3	3			14	14	14	
Urology				3	3			15	15	15	
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>37</b>	<b>29</b>	<b>10</b>	<b>7</b>	<b>191</b>	<b>191</b>	<b>190</b>	<b>1</b>
<b>Total</b>	<b>278</b>	<b>268</b>	<b>176</b>	<b>147</b>	<b>127</b>	<b>29</b>	<b>14</b>	<b>1039</b>	<b>1039</b>	<b>1022</b>	<b>17</b>

\* Canadian Citizens and Permanent Residents

**TABLE B-1b  
2010 POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS  
(TRAINEES FUNDED BY ALL SOURCES OTHER THAN REGULAR MINISTRY FUNDS)  
FIELD OF POST-M.D. TRAINING  
BY  
RANK**

**University of British Columbia**

Field of Post-M.D. Training	Residents										Total	Legal Status		Entry Status	
	R-1	R-2	R-3	R-4	R-5	R-6	R-7	Sub-Total	Fellows Fellow	CC/PR*		Visa	New Entry	Re-Entry	
Family Medicine	3								3			3		3	
Enhanced Skills: Other Fam. Med. Training															
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>3</b>							<b>3</b>				<b>3</b>		<b>3</b>	
Anesthesiology					1				1					17	
Dermatology			1	1					2			3		6	
Diagnostic Radiology				1					1			6		3	
Neuroradiology												29		23	1
Pediatric Diagnostic Radiology												5		1	1
Internal Medicine	5	4	4					13	2			2		1	2
Cardiology (Int. Med.)				1	1			3	2			15		3	15
Critical Care (Int. Med.)					1			1	22			25		5	25
Endocrinology/Met. (Int. Med.)					1			1	1			2		2	2
Gastroenterology (Int. Med.)				1	1			2	3			4		4	4
Hematology (Int. Med.)				1	1			1	2			2		2	2
Infectious Diseases (Int. Med.)									1			1		1	1
Medical Oncology (Int. Med.)				1	2			3	14			17		6	11
Nephrology (Int. Med.)				1	2			3	8			11		6	11
Respirology (Int. Med.)									1			1		1	1
Rheumatology (Int. Med.)				1				1	1			2		1	2
Medical Genetics									2			2		2	2
Neurology	1		1					3	11			14		1	14
Neurology (Pediatrics)		1						1	5			6		6	6
Nuclear Medicine									1			1		1	1
Pediatrics									4			5		4	5
Adolescent Medicine (Ped.)									1			1		1	1
Cardiology (Ped.)									1			2		2	2
Critical Care (Ped.)									4			5		4	5
Endocrinology/Met. (Ped.)					1			1	4			4		3	4
Gastroenterology (Ped.)									2			2		2	2
Developmental Pediatrics									2			2		2	2
Pediatric Emergency Med. (Ped.)									6			6		6	6
Hematology/Oncology (Ped.)									3			3		3	3
Infectious Diseases (Ped.)									5			5		5	5

**TABLE B-1b  
2010 POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS  
(TRAINEES FUNDED BY ALL SOURCES OTHER THAN REGULAR MINISTRY FUNDS)  
FIELD OF POST-M.D. TRAINING  
BY  
RANK**

**University of British Columbia**

Field of Post-M.D. Training	Residents										Total	Legal Status		Entry Status		
	R-1	R-2	R-3	R-4	R-5	R-6	R-7	Sub- Total	Fellows Fellow	CC/ PR*		Visa	New Entry	Re- Entry		
Neonatal-Perinatal Med. (Ped.)														8		8
Nephrology (Ped.)														3		3
Respirology (Ped.)														1		1
Rheumatology (Ped.)				1										3		3
Psychiatry														8		8
Radiation Oncology														8		8
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>4</b>	<b>1</b>	<b>41</b>	<b>190</b>	<b>44</b>	<b>187</b>	<b>227</b>	<b>4</b>	<b>231</b>	<b>227</b>	<b>4</b>
Anatomical Pathology	1	1		1				2	2					4		4
Hematological Pathology		1		1				2						2		2
Medical Biochemistry					1			1						1		1
Neuropathology							1	2	1					3		3
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>3</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
Cardiac Surgery		1						2	5	7	4	4		7		7
General Surgery		1						1	7	8	4	4		6		6
Colorectal Surgery									1	1				1		1
Critical Care (Surgery)				1				1	1	1		1		1		1
Thoracic Surgery									1	1				1		1
Vascular Surgery									1	2		2		2		2
Neurosurgery									2	3		3		3		3
Obstetrics/Gynecology		1						1	1	1		1		1		1
Gyn.Rep.Endocrin./Infertility									1	2		2		2		2
Maternal-Fetal Med. (Ob.)									1	1		1		1		1
Ophthalmology									15	15	5	10		14		14
Otolaryngology - Head and Neck Surgery									4	4	2	2		4		4
Orthopedic Surgery									23	23	8	15		23		23
Plastic Surgery									3	3	2	1		3		3
Urology									3	3		3		3		3
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>67</b>	<b>75</b>	<b>25</b>	<b>49</b>	<b>70</b>	<b>75</b>	<b>49</b>	<b>70</b>
<b>Total</b>	<b>10</b>	<b>11</b>	<b>6</b>	<b>11</b>	<b>10</b>	<b>7</b>	<b>4</b>	<b>59</b>	<b>261</b>	<b>320</b>	<b>73</b>	<b>247</b>	<b>311</b>	<b>320</b>	<b>247</b>	<b>311</b>

\* Canadian Citizens and Permanent Residents  
Note: 91 of the visa trainees were funded by foreign government contracts (e.g. Saudi Arabia)

TABLE B-2  
2010 RESIDENTS IN BRITISH COLUMBIA TRAINING PROGRAMS  
FIELD OF POST-M.D. TRAINING  
BY  
PROVINCE WHERE M.D. DEGREE WAS EARNED

Field of Post-M.D. Training	Graduates of Canadian Medical Schools									Int. Med. Grads IMGS*	Total
	Nfld.	N.S.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Sub-Total		
Family Medicine		2	13	61	5	4	37	76	198	32	230
Emergency Medicine (CFPC)			1		1		1	6	9		9
Enhanced Skills: Other Fam. Med. Training		1		3		1	1	4	11	1	12
<b>FAMILY MEDICINE SUBTOTAL</b>		3	16	64	6	5	39	86	218	33	251
Palliative Medicine	1			1				1	3		3
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	1			1				1	3		3
Anesthesiology		2		13	1	2	6	28	52	2	54
Public Health and Preventive Medicine			2	3			3	3	11	2	13
Dermatology				5	1			7	14	2	16
Diagnostic Radiology		3		4		1	3	24	35	1	36
Emergency Medicine (RCPSC)			2	6		1	1	9	19		19
Critical Care (Emergency Med.)				1				1	2		2
Internal Medicine	1	3	11	27	2	2	15	59	120	34	164
Cardiology (Int.Med.)				5		1	3	4	13	4	17
Critical Care (Int.Med.)				1				1	2	1	3
Endocrinology/Met. (Int.Med.)			2	1			2		5	1	6
Gastroenterology (Int.Med.)				3					3	2	5
Geriatric Medicine (Int.Med.)				2			1	2	5		5
Hematology (Int.Med.)		1		6					7	1	8
Infectious Diseases (Int.Med.)			1	2	1		1		5		5
Medical Oncology (Int.Med.)			2	2	2		1		7	3	10
Nephrology (Int.Med.)						1	1	3	5	2	7
Respirology (Int.Med.)			1	4			2	2	9		9
Rheumatology (Int.Med.)		1					2	1	4	1	5
Medical Genetics								2	2	2	4
Neurology		1	2	8		1	6	6	26	3	29
Neurology (Pediatrics)				2		1	1	1	5	5	10
Nuclear Medicine			1		1				2	1	3
Pediatrics		2	10	8	1	1	9	9	40	6	46
Cardiology (Ped.)						1		1	2	2	4
Critical Care (Ped.)	1				1		1		3	1	4
Endocrinology/Met. (Ped.)			1						1		1
Gastroenterology (Ped.)				1					1		1
Developmental Pediatrics					1				1		1
Pediatric Emergency Med. (Ped.)						1	2		3		3
Hematology/Oncology (Ped.)				1	1		2		4		4
Nephrology (Ped.)								1	1		1
Rheumatology (Ped.)								2	2	2	4
Physical Medicine & Rehab.	1			3	1		1	5	11	1	12
Psychiatry		1	1	13	2	1	16	44	78	13	91
Radiation Oncology	1		2	1			2	4	10		10
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	4	14	38	122	15	14	64	219	610	92	602
Anatomical Pathology			2	3		1	1	6	13	4	17
General Pathology				1				4	5	3	8
Hematological Pathology								2	2	3	5
Medical Biochemistry								2	2	3	5
Medical Microbiology				1			1	2	4		4
Neuropathology										4	4
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>			2	5		1	2	16	26	17	43
Cardiac Surgery			1	1			1		3	2	5
Thoracic Surgery (Cardiac Surg.)						1			1		1
General Surgery		1	3	16			4	20	44	2	46
Critical Care (Surgery)										1	1
Pediatric General Surgery						1		1	2		2
Thoracic Surgery										1	1
Vascular Surgery				1	1				2	1	3
Neurosurgery		1		2				4	7	1	8
Obstetrics/Gynecology	1	2	3	6	1	2	5	17	37	1	38

TABLE B-2  
 2010 RESIDENTS IN BRITISH COLUMBIA TRAINING PROGRAMS  
 FIELD OF POST-M.D. TRAINING  
 BY  
 PROVINCE WHERE M.D. DEGREE WAS EARNED

Field of Post-M.D. Training	Graduates of Canadian Medical Schools									Int. Med. Grads	Total
	Nfld.	N.S.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Sub-Total	IMGS*	
Gyn. Oncology							2		2		2
Gyn.Rep.Endocrin./Infertility										1	1
Maternal-Fetal Med. (Ob.)							2	1	3		3
Ophthalmology				4		1	3	8	16		16
Otolaryngology - Head and Neck Surgery		1	2	5		1	1	4	14		14
Orthopedic Surgery	1		1	6			4	15	27	2	29
Plastic Surgery				5			3	8	14		14
Urology				2			5	8	15		15
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>48</b>	<b>2</b>	<b>6</b>	<b>30</b>	<b>84</b>	<b>187</b>	<b>12</b>	<b>199</b>
<b>Total</b>	<b>7</b>	<b>22</b>	<b>65</b>	<b>240</b>	<b>23</b>	<b>26</b>	<b>155</b>	<b>406</b>	<b>944</b>	<b>164</b>	<b>1098</b>

\* IMGS: International Medical Graduates

**TABLE B-21**  
**2010 RESIDENTS IN BRITISH COLUMBIA TRAINING PROGRAMS**  
**FIRST YEAR TRAINEES ONLY**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE WHERE M.D. DEGREE WAS EARNED**

Field of Post-M.D. Training	Graduates of Canadian Medical Schools								Int. Med. Grads IMGS*	Total
	N.S.	Que.	Ont.	Man.	Sask.	Alta	B.C.	Sub-Total		
Family Medicine	1	2	30	4	2	20	35	94	15	109
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>30</b>	<b>4</b>	<b>2</b>	<b>20</b>	<b>35</b>	<b>94</b>	<b>15</b>	<b>109</b>
Anesthesiology			2	1		1	8	10		10
Public Health and Preventive Medicine		1				1		2		2
Dermatology			2				1	3		3
Diagnostic Radiology	2						5	7		7
Emergency Medicine (RCPSC)		1			1	1	1	4		4
Internal Medicine	1	2	10	1	1	4	19	38	7	45
Medical Genetics									1	1
Neurology			2			1	2	5	1	6
Neurology (Pediatrics)									3	3
Pediatrics	2	4	1			3	3	13		13
Physical Medicine & Rehab.							2	2		2
Psychiatry			5			4	10	19	3	22
Radiation Oncology						1	1	2		2
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>5</b>	<b>8</b>	<b>22</b>	<b>2</b>	<b>2</b>	<b>16</b>	<b>50</b>	<b>105</b>	<b>15</b>	<b>120</b>
Anatomical Pathology			1				1	2	1	3
General Pathology			1				1	2	1	3
Medical Biochemistry							1	1	1	2
Medical Microbiology			1					1		1
Neuropathology									1	1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>			<b>3</b>				<b>3</b>	<b>6</b>	<b>4</b>	<b>10</b>
General Surgery			4			1	3	8		8
Neurosurgery			1					1		1
Obstetrics/Gynecology	1	1	2			2	2	8		8
Ophthalmology					1	1	1	3		3
Otolaryngology - Head and Neck Surgery			2				1	3		3
Orthopedic Surgery		1	2				2	5	1	6
Plastic Surgery						2		2		2
Urology			1			1	1	3		3
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>12</b>		<b>1</b>	<b>7</b>	<b>10</b>	<b>33</b>	<b>1</b>	<b>34</b>
<b>Total</b>	<b>7</b>	<b>12</b>	<b>67</b>	<b>6</b>	<b>5</b>	<b>43</b>	<b>98</b>	<b>238</b>	<b>35</b>	<b>273</b>

\* IMGS: International Medical Graduates

**TABLE B-3  
2010 RESIDENTS IN BRITISH COLUMBIA TRAINING PROGRAMS  
FIELD OF POST-M.D. TRAINING  
BY  
GENDER**

Field of Post-M.D. Training	Female		Male		Total	
	Count	Row %	Count	Row %	Count	Row %
Family Medicine	161	70.0%	69	30.0%	230	100.0%
Emergency Medicine (CFPC)	3	33.3%	6	66.7%	9	100.0%
Enhanced Skills: Other Fam. Med. Training	7	58.3%	5	41.7%	12	100.0%
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>171</b>	<b>68.1%</b>	<b>80</b>	<b>31.9%</b>	<b>251</b>	<b>100.0%</b>
Palliative Medicine	3	100.0%			3	100.0%
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	<b>3</b>	<b>100.0%</b>			<b>3</b>	<b>100.0%</b>
Anesthesiology	21	38.9%	33	61.1%	54	100.0%
Public Health and Preventive Medicine	8	61.5%	5	38.5%	13	100.0%
Dermatology	10	62.5%	6	37.5%	16	100.0%
Diagnostic Radiology	13	36.1%	23	63.8%	36	100.0%
Emergency Medicine (RCPSC)	8	42.1%	11	57.9%	19	100.0%
Critical Care (Emergency Med.)			2	100.0%	2	100.0%
Internal Medicine	66	42.9%	88	57.1%	154	100.0%
Cardiology (Int.Med.)	6	35.3%	11	64.7%	17	100.0%
Critical Care (Int.Med.)			3	100.0%	3	100.0%
Endocrinology/Met. (Int.Med.)	4	66.7%	2	33.3%	6	100.0%
Gastroenterology (Int.Med.)	1	20.0%	4	80.0%	5	100.0%
Geriatric Medicine (Int.Med.)	2	40.0%	3	60.0%	5	100.0%
Hematology (Int.Med.)	7	87.5%	1	12.5%	8	100.0%
Infectious Diseases (Int.Med.)	4	80.0%	1	20.0%	5	100.0%
Medical Oncology (Int.Med.)	5	50.0%	5	50.0%	10	100.0%
Nephrology (Int.Med.)	3	42.9%	4	57.1%	7	100.0%
Respirology (Int.Med.)	4	44.4%	5	55.6%	9	100.0%
Rheumatology (Int.Med.)	5	100.0%			5	100.0%
Medical Genetics	4	100.0%			4	100.0%
Neurology	15	51.7%	14	48.3%	29	100.0%
Neurology (Pediatrics)	7	70.0%	3	30.0%	10	100.0%
Nuclear Medicine			3	100.0%	3	100.0%
Pediatrics	41	89.1%	5	10.9%	46	100.0%
Cardiology (Ped.)	2	50.0%	2	50.0%	4	100.0%
Critical Care (Ped.)	4	100.0%			4	100.0%
Endocrinology/Met. (Ped.)	1	100.0%			1	100.0%
Gastroenterology (Ped.)	1	100.0%			1	100.0%
Developmental Pediatrics			1	100.0%	1	100.0%
Pediatric Emergency Med. (Ped.)	2	66.7%	1	33.3%	3	100.0%
Hematology/Oncology (Ped.)	3	75.0%	1	25.0%	4	100.0%
Nephrology (Ped.)	1	100.0%			1	100.0%
Rheumatology (Ped.)	2	50.0%	2	50.0%	4	100.0%
Physical Medicine & Rehab.	6	50.0%	6	50.0%	12	100.0%
Psychiatry	58	63.7%	33	36.3%	91	100.0%
Radiation Oncology	7	70.0%	3	30.0%	10	100.0%
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>321</b>	<b>53.3%</b>	<b>281</b>	<b>46.7%</b>	<b>602</b>	<b>100.0%</b>
Anatomical Pathology	7	41.2%	10	58.8%	17	100.0%
General Pathology	2	25.0%	6	75.0%	8	100.0%



**TABLE B-3**  
**2010 RESIDENTS IN BRITISH COLUMBIA TRAINING PROGRAMS**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GENDER**

Field of Post-M.D. Training	Female		Male		Total	
	Count	Row %	Count	Row %	Count	Row %
Hematological Pathology	4	80.0%	1	20.0%	5	100.0%
Medical Biochemistry	2	40.0%	3	60.0%	5	100.0%
Medical Microbiology	1	25.0%	3	75.0%	4	100.0%
Neuropathology	2	50.0%	2	50.0%	4	100.0%
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>	<b>18</b>	<b>41.9%</b>	<b>25</b>	<b>58.1%</b>	<b>43</b>	<b>100.0%</b>
Cardiac Surgery	1	20.0%	4	80.0%	5	100.0%
Thoracic Surgery (Cardiac Surg.)			1	100.0%	1	100.0%
General Surgery	28	60.9%	18	39.1%	46	100.0%
Critical Care (Surgery)			1	100.0%	1	100.0%
Pediatric General Surgery	2	100.0%			2	100.0%
Thoracic Surgery			1	100.0%	1	100.0%
Vascular Surgery	1	33.3%	2	66.7%	3	100.0%
Neurosurgery	2	25.0%	6	75.0%	8	100.0%
Obstetrics/Gynecology	33	86.8%	5	13.2%	38	100.0%
Gyn. Oncology	2	100.0%			2	100.0%
Gyn.Rep.Endocrin./Infertility			1	100.0%	1	100.0%
Maternal-Fetal Med. (Ob.)	3	100.0%			3	100.0%
Ophthalmology	6	37.5%	10	62.5%	16	100.0%
Otolaryngology - Head and Neck Surgery	9	64.3%	5	35.7%	14	100.0%
Orthopedic Surgery	9	31.0%	20	69.0%	29	100.0%
Plastic Surgery	7	50.0%	7	50.0%	14	100.0%
Urology	3	20.0%	12	80.0%	15	100.0%
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>106</b>	<b>53.3%</b>	<b>93</b>	<b>46.7%</b>	<b>199</b>	<b>100.0%</b>
<b>Total</b>	<b>619</b>	<b>56.4%</b>	<b>479</b>	<b>43.6%</b>	<b>1098</b>	<b>100.0%</b>

## **Section C**

**Post-M.D. Trainees Exiting  
British Columbia Training Programs in**

**July, 2010**

**at the Completion of Post-M.D. Training**

TABLE C-1  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(GRADUATES OF CANADIAN MEDICAL SCHOOLS)  
FIELD OF POST-M.D. TRAINING  
BY  
RANK

Field of Post-M.D. Training	Residents							Fellows	Total
	R-2	R-3	R-4	R-5	R-6	R-7	Sub-Total	Fellow	
Family Medicine	65						65		65
Emergency Medicine (CFPC)		5					5		5
Enhanced Skills: Other Fam. Med. Training		11					11		11
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>65</b>	<b>16</b>					<b>81</b>		<b>81</b>
Palliative Medicine		2	1				3		3
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>		<b>2</b>	<b>1</b>				<b>3</b>		<b>3</b>
Anesthesiology				10			10	1	11
Transfusion Medicine (Anes.)						1	1		1
Public Health and Preventive Medicine				1			1		1
Dermatology				1			1		1
Diagnostic Radiology				8			8	7	16
Neuroradiology								1	1
Emergency Medicine (RCPSC)				4			4		4
Critical Care (Emergency Med.)						1	1		1
Internal Medicine				2			2		2
Cardiology (Int.Med.)					2		2	1	3
Critical Care (Int.Med.)				3			3		3
Endocrinology/Met. (Int.Med.)								1	1
Gastroenterology (Int.Med.)				2			2		2
Geriatric Medicine (Int.Med.)				1			1		1
Hematology (Int.Med.)				1			1	1	2
Infectious Diseases (Int.Med.)				2			2		2
Medical Oncology (Int.Med.)				1	1		2	2	4
Nephrology (Int.Med.)					1		1	1	2
Respirology (Int.Med.)				1			1		1
Rheumatology (Int.Med.)					1		1		1
Medical Genetics				2	1		3		3
Neurology				1			1		1
Nuclear Medicine								1	1
Pediatrics			8				8		8
Pediatric Emergency Med. (Ped.)					2		2		2
Hematology/Oncology (Ped.)					1		1		1
Physical Medicine & Rehab.				1			1		1
Psychiatry			1	7			8	2	10
Radiation Oncology				3			3	2	5
<b>MEDICAL SPECIALTIES SUBTOTAL</b>			<b>9</b>	<b>51</b>	<b>9</b>	<b>2</b>	<b>71</b>	<b>20</b>	<b>91</b>
Anatomical Pathology				2	1		3		3
General Pathology				1			1		1
Medical Microbiology				1		1	2		2
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>				<b>4</b>	<b>1</b>	<b>1</b>	<b>6</b>		<b>6</b>
Cardiac Surgery								1	1
Critical Care (Cardiac Surg.)								1	1
General Surgery					3		3	1	4
Pediatric General Surgery						1	1		1
Thoracic Surgery						1	1		1
Vascular Surgery						1	1		1
Neurosurgery					3		3		3
Obstetrics/Gynecology				3			3		3
Gyn. Oncology					1	1	2		2
Gyn.Rep.Endocrin./Infertility						1	1		1

**TABLE C-1**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(GRADUATES OF CANADIAN MEDICAL SCHOOLS)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**RANK**

Field of Post-M.D. Training	Residents						Sub-Total	Fellows	Total
	R-2	R-3	R-4	R-5	R-6	R-7		Fellow	
Maternal-Fetal Med. (Ob.)						2	2		2
Ophthalmology				1			1	2	3
Otolaryngology - Head and Neck Surgery				1			1		1
Orthopedic Surgery				5			5	7	12
Plastic Surgery				1			1	2	3
Urology				2			2		2
<b>SURGICAL SPECIALTIES SUBTOTAL</b>				<b>13</b>	<b>7</b>	<b>7</b>	<b>27</b>	<b>14</b>	<b>41</b>
<b>Total</b>	<b>65</b>	<b>18</b>	<b>10</b>	<b>68</b>	<b>17</b>	<b>10</b>	<b>188</b>	<b>34</b>	<b>222</b>

**TABLE C-2**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(GRADUATES OF CANADIAN MEDICAL SCHOOLS)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GENDER**

Field of Post-M.D. Training	Female		Male		Total	
	Count	Row %	Count	Row %	Count	Row %
Family Medicine	36	55.4%	29	44.6%	65	100.0%
Emergency Medicine (CFPC)	2	40.0%	3	60.0%	5	100.0%
Enhanced Skills; Other Fam. Med. Training	8	72.7%	3	27.3%	11	100.0%
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>46</b>	<b>56.8%</b>	<b>35</b>	<b>43.2%</b>	<b>81</b>	<b>100.0%</b>
Palliative Medicine	1	33.3%	2	66.7%	3	100.0%
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	<b>1</b>	<b>33.3%</b>	<b>2</b>	<b>66.7%</b>	<b>3</b>	<b>100.0%</b>
Anesthesiology	7	63.6%	4	36.4%	11	100.0%
Transfusion Medicine (Anes.)	1	100.0%			1	100.0%
Public Health and Preventive Medicine	1	100.0%			1	100.0%
Dermatology			1	100.0%	1	100.0%
Diagnostic Radiology	5	33.3%	10	66.7%	15	100.0%
Neuroradiology			1	100.0%	1	100.0%
Emergency Medicine (RCPSC)	1	25.0%	3	75.0%	4	100.0%
Critical Care (Emergency Med.)			1	100.0%	1	100.0%
Internal Medicine			2	100.0%	2	100.0%
Cardiology (Int.Med.)	1	33.3%	2	66.7%	3	100.0%
Critical Care (Int.Med.)	1	33.3%	2	66.7%	3	100.0%
Endocrinology/Met. (Int.Med.)			1	100.0%	1	100.0%
Gastroenterology (Int.Med.)	2	100.0%			2	100.0%
Geriatric Medicine (Int.Med.)	1	100.0%			1	100.0%
Hematology (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Infectious Diseases (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Medical Oncology (Int.Med.)	2	50.0%	2	50.0%	4	100.0%
Nephrology (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Respirology (Int.Med.)			1	100.0%	1	100.0%
Rheumatology (Int.Med.)	1	100.0%			1	100.0%
Medical Genetics	3	100.0%			3	100.0%
Neurology	1	100.0%			1	100.0%
Nuclear Medicine			1	100.0%	1	100.0%
Pediatrics	8	100.0%			8	100.0%
Pediatric Emergency Med. (Ped.)			2	100.0%	2	100.0%
Hematology/Oncology (Ped.)			1	100.0%	1	100.0%
Physical Medicine & Rehab.	1	100.0%			1	100.0%
Psychiatry	4	40.0%	6	60.0%	10	100.0%
Radiation Oncology	4	80.0%	1	20.0%	5	100.0%
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>47</b>	<b>51.6%</b>	<b>44</b>	<b>48.4%</b>	<b>91</b>	<b>100.0%</b>
Anatomical Pathology	1	33.3%	2	66.7%	3	100.0%
General Pathology	1	100.0%			1	100.0%
Medical Microbiology	1	50.0%	1	50.0%	2	100.0%

**TABLE C-2**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(GRADUATES OF CANADIAN MEDICAL SCHOOLS)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GENDER**

Field of Post-M.D. Training	Female		Male		Total	
	Count	Row %	Count	Row %	Count	Row %
<b>LAB MEDICINE/SPECIALTIES SUBTOTAL</b>	<b>3</b>	<b>50.0%</b>	<b>3</b>	<b>50.0%</b>	<b>6</b>	<b>100.0%</b>
Cardiac Surgery			1	100.0%	1	100.0%
Critical Care (Cardiac Surg.)			1	100.0%	1	100.0%
General Surgery	2	50.0%	2	50.0%	4	100.0%
Pediatric General Surgery			1	100.0%	1	100.0%
Thoracic Surgery			1	100.0%	1	100.0%
Vascular Surgery			1	100.0%	1	100.0%
Neurosurgery			3	100.0%	3	100.0%
Obstetrics/Gynecology	3	100.0%			3	100.0%
Gyn. Oncology	2	100.0%			2	100.0%
Gyn.Rep.Endocrin./Infertility	1	100.0%			1	100.0%
Maternal-Fetal Med. (Ob.)	2	100.0%			2	100.0%
Ophthalmology	1	33.3%	2	66.7%	3	100.0%
Otolaryngology - Head and Neck Surgery			1	100.0%	1	100.0%
Orthopedic Surgery	7	58.3%	5	41.7%	12	100.0%
Plastic Surgery			3	100.0%	3	100.0%
Urology	1	50.0%	1	50.0%	2	100.0%
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>19</b>	<b>46.3%</b>	<b>22</b>	<b>53.7%</b>	<b>41</b>	<b>100.0%</b>
<b>Total</b>	<b>116</b>	<b>52.3%</b>	<b>106</b>	<b>47.7%</b>	<b>222</b>	<b>100.0%</b>

**TABLE C-3  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(GRADUATES OF CANADIAN MEDICAL SCHOOLS)  
FIELD OF POST-M.D. TRAINING (NOV 1, 2009)  
OF NEW ENTRY AND RE-ENTRY GROUPS\***

Field of Post-M.D. Training	New Entry		Re-entry		Total	
	Count	Col %	Count	Col %	Count	Col %
Family Medicine	65	31.1%			65	29.3%
Emergency Medicine (CFPC)	5	2.4%			5	2.3%
Enhanced Skills: Other Fam. Med. Training	5	2.4%	6	46.2%	11	5.0%
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>75</b>	<b>35.9%</b>	<b>6</b>	<b>46.2%</b>	<b>81</b>	<b>36.5%</b>
Palliative Medicine	2	1.0%	1	7.7%	3	1.4%
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	<b>2</b>	<b>1.0%</b>	<b>1</b>	<b>7.7%</b>	<b>3</b>	<b>1.4%</b>
Anesthesiology	10	4.8%	1	7.7%	11	5.0%
Transfusion Medicine (Anes.)	1	.5%			1	.5%
Public Health and Preventive Medicine	1	.5%			1	.5%
Dermatology	1	.5%			1	.5%
Diagnostic Radiology	12	5.7%	3	23.1%	15	6.8%
Neuroradiology	1	.5%			1	.5%
Emergency Medicine (RCPSC)	4	1.9%			4	1.8%
Critical Care (Emergency Med.)	1	.5%			1	.5%
Internal Medicine	2	1.0%			2	.9%
Cardiology (Int.Med.)	3	1.4%			3	1.4%
Critical Care (Int.Med.)	3	1.4%			3	1.4%
Endocrinology/Met. (Int.Med.)	1	.5%			1	.5%
Gastroenterology (Int.Med.)	2	1.0%			2	.9%
Geriatric Medicine (Int.Med.)	1	.5%			1	.5%
Hematology (Int.Med.)	2	1.0%			2	.9%
Infectious Diseases (Int.Med.)	2	1.0%			2	.9%
Medical Oncology (Int.Med.)	4	1.9%			4	1.8%
Nephrology (Int.Med.)	2	1.0%			2	.9%
Respirology (Int.Med.)	1	.5%			1	.5%
Rheumatology (Int.Med.)	1	.5%			1	.5%
Medical Genetics	3	1.4%			3	1.4%
Neurology	1	.5%			1	.5%
Nuclear Medicine			1	7.7%	1	.5%
Pediatrics	8	3.8%			8	3.5%
Pediatric Emergency Med. (Ped.)	2	1.0%			2	.9%
Hematology/Oncology (Ped.)	1	.5%			1	.5%
Physical Medicine & Rehab.	1	.5%			1	.5%
Psychiatry	10	4.8%			10	4.5%
Radiation Oncology	5	2.4%			5	2.3%
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>86</b>	<b>41.1%</b>	<b>5</b>	<b>38.5%</b>	<b>91</b>	<b>41.0%</b>
Anatomical Pathology	3	1.4%			3	1.4%
General Pathology	1	.5%			1	.5%
Medical Microbiology	2	1.0%			2	.9%
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>	<b>6</b>	<b>2.9%</b>			<b>6</b>	<b>2.7%</b>

**TABLE C-3  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(GRADUATES OF CANADIAN MEDICAL SCHOOLS)  
FIELD OF POST-M.D. TRAINING (NOV 1, 2009)  
OF NEW ENTRY AND RE-ENTRY GROUPS\***

Field of Post-M.D. Training	New Entry		Re-entry		Total	
	Count	Col %	Count	Col %	Count	Col %
Cardiac Surgery	1	.5%			1	.5%
Critical Care (Cardiac Surg.)	1	.5%			1	.5%
General Surgery	4	1.9%			4	1.8%
Pediatric General Surgery	1	.5%			1	.5%
Thoracic Surgery	1	.5%			1	.5%
Vascular Surgery	1	.5%			1	.5%
Neurosurgery	3	1.4%			3	1.4%
Obstetrics/Gynecology	3	1.4%			3	1.4%
Gyn. Oncology	2	1.0%			2	.9%
Gyn.Rep.Endocrin./Infertility	1	.5%			1	.5%
Maternal-Fetal Med. (Ob.)	2	1.0%			2	.9%
Ophthalmology	3	1.4%			3	1.4%
Otolaryngology - Head and Neck Surgery	1	.5%			1	.5%
Orthopedic Surgery	12	5.7%			12	5.4%
Plastic Surgery	2	1.0%	1	7.7%	3	1.4%
Urology	2	1.0%			2	.9%
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>40</b>	<b>19.1%</b>	<b>1</b>	<b>7.7%</b>	<b>41</b>	<b>18.5%</b>
<b>Total</b>	<b>209</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>222</b>	<b>100.0%</b>

\* New Entry - trainees assumed to be entering practice for the first time  
Re-entry - trainees assumed to be re-entering practice



**TABLE C-4  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA  
TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(INTERNATIONAL MEDICAL GRADUATES)**

**LOCATION OF RECEIPT OF THE M.D. DEGREE  
BY  
LEGAL STATUS**

M.D. Country	Legal Status		
	CC/PR*	Visa	Total
Afghanistan	1		1
Armenia	1		1
Australia	3	14	17
Bahrain		2	2
Bangladesh		1	1
Benin	1		1
Brazil		1	1
Chile		1	1
China (PRC)	1	6	7
China-Taiwan		2	2
Czech Republic		1	1
Germany		3	3
India	4	7	11
Iran	5	1	6
Iraq		1	1
Republic of Ireland	2	4	6
Israel		5	5
Italy		2	2
Japan		1	1
Jordan	1	2	3
Kuwait		1	1
Libya	1	1	2
Mexico	1	2	3
Morocco		1	1
Saint Kitts and Nevis	3		3
Netherlands		1	1
New Zealand		4	4
Oman		2	2
Pakistan		1	1
Philippines		1	1
Romania	2	1	3
Russia	1		1
Saudi Arabia		20	20
Singapore		2	2
South Africa	4		4
Spain		1	1
Switzerland		4	4
Ukraine	1		1

**TABLE C-4  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA  
TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(INTERNATIONAL MEDICAL GRADUATES)  
LOCATION OF RECEIPT OF THE M.D. DEGREE  
BY  
LEGAL STATUS**

M.D. Country	Legal Status		
	CC/PR*	Visa	Total
United States		4	4
United Kingdom	2	29	31
Nepal		1	1
<b>Total</b>	<b>34</b>	<b>130</b>	<b>164</b>

CC/PR: Canadian Citizens and Permanent Residents

**TABLE C-4A  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA  
TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(INTERNATIONAL MEDICAL GRADUATES)**

**FIELD OF POST-M.D. TRAINING  
BY  
LEGAL STATUS**

Field of Post-M.D. Training	Legal Status		
	CC/PR*	Visa	Total
Family Medicine	13		13
Emergency Medicine (CFPC)	1		1
Enhanced Skills: Other Fam. Med. Training	4		4
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>18</b>		<b>18</b>
Palliative Medicine	1	2	3
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>3</b>
Anesthesiology		9	9
Public Health and Preventive Medicine	1		1
Dermatology		8	8
Diagnostic Radiology		11	11
Pediatric Diagnostic Radiology		1	1
Critical Care (Emergency Med.)	1		1
Internal Medicine	2	1	3
Cardiology (Int.Med.)	2	12	14
Critical Care (Int.Med.)		1	1
Gastroenterology (Int.Med.)		2	2
Geriatric Medicine (Int.Med.)		1	1
Hematology (Int.Med.)		2	2
Infectious Diseases (Int.Med.)		2	2
Medical Oncology (Int.Med.)		6	6
Rheumatology (Int.Med.)		1	1
Medical Genetics	1		1
Neurology	1	7	8
Neurology (Pediatrics)		2	2
Pediatrics	1	1	2
Endocrinology/Met. (Ped.)		1	1
Gastroenterology (Ped.)		2	2
Developmental Pediatrics		4	4
Pediatric Emergency Med. (Ped.)	1	1	2
Hematology/Oncology (Ped.)		1	1
Infectious Diseases (Ped.)		5	5
Neonatal-Perinatal Med. (Ped.)		4	4
Nephrology (Ped.)		1	1
Respirology (Ped.)		2	2
Rheumatology (Ped.)		1	1
Psychiatry	1	5	6
Radiation Oncology		4	4
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>11</b>	<b>98</b>	<b>109</b>

**TABLE C-4A  
 POST-M.D. TRAINEES EXITING BRITISH COLUMBIA  
 TRAINING PROGRAMS IN JULY, 2010  
 AT THE COMPLETION OF POST-M.D. TRAINING  
 (INTERNATIONAL MEDICAL GRADUATES)**

**FIELD OF POST-M.D. TRAINING  
 BY  
 LEGAL STATUS**

Field of Post-M.D. Training	Legal Status		
	CC/PR*	Visa	Total
Anatomical Pathology		2	2
General Pathology	1		1
Medical Biochemistry		1	1
Neuropathology		1	1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>4</b>	<b>5</b>
Cardiac Surgery		1	1
General Surgery		1	1
Neurosurgery		4	4
Obstetrics/Gynecology	2	1	3
Ophthalmology	1	3	4
Otolaryngology - Head and Neck Surgery		2	2
Orthopedic Surgery		7	7
Plastic Surgery		3	3
Urology		4	4
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>3</b>	<b>26</b>	<b>29</b>
<b>Total</b>	<b>34</b>	<b>130</b>	<b>164</b>

CC/PR: Canadian Citizens and Permanent Residents

**TABLE C-5  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010  
AT THE COMPLETION OF POST-M.D. TRAINING  
(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT  
INCLUDED)  
FIELD OF POST-M.D. TRAINING  
BY  
RANK**

Field of Post-M.D. Training	Residents		Fellows		Total	
	Count	Row %	Count	Row %	Count	Row %
Family Medicine	78	100.0%			78	100.0%
Emergency Medicine (CFPC)	6	100.0%			6	100.0%
Enhanced Skills: Other Fam. Med. Training	15	100.0%			15	100.0%
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>99</b>	<b>100.0%</b>			<b>99</b>	<b>100.0%</b>
Palliative Medicine	4	100.0%			4	100.0%
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>	<b>4</b>	<b>100.0%</b>			<b>4</b>	<b>100.0%</b>
Anesthesiology	10	90.9%	1	9.1%	11	100.0%
Transfusion Medicine (Anes.)	1	100.0%			1	100.0%
Public Health and Preventive Medicine	2	100.0%			2	100.0%
Dermatology	1	100.0%			1	100.0%
Diagnostic Radiology	8	53.3%	7	46.7%	15	100.0%
Neuroradiology			1	100.0%	1	100.0%
Emergency Medicine (RCPC)	4	100.0%			4	100.0%
Critical Care (Emergency Med.)	2	100.0%			2	100.0%
Internal Medicine	4	100.0%			4	100.0%
Cardiology (Int.Med.)	2	40.0%	3	60.0%	5	100.0%
Critical Care (Int.Med.)	3	100.0%			3	100.0%
Endocrinology/Met. (Int.Med.)			1	100.0%	1	100.0%
Gastroenterology (Int.Med.)	2	100.0%			2	100.0%
Geriatric Medicine (Int.Med.)	1	100.0%			1	100.0%
Hematology (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Infectious Diseases (Int.Med.)	2	100.0%			2	100.0%
Medical Oncology (Int.Med.)	2	50.0%	2	50.0%	4	100.0%
Nephrology (Int.Med.)	1	50.0%	1	50.0%	2	100.0%
Respirology (Int.Med.)	1	100.0%			1	100.0%
Rheumatology (Int.Med.)	1	100.0%			1	100.0%
Medical Genetics	3	75.0%	1	25.0%	4	100.0%
Neurology	2	100.0%			2	100.0%
Nuclear Medicine			1	100.0%	1	100.0%
Pediatrics	9	100.0%			9	100.0%
Pediatric Emergency Med. (Ped.)	2	66.7%	1	33.3%	3	100.0%
Hematology/Oncology (Ped.)	1	100.0%			1	100.0%
Physical Medicine & Rehab.	1	100.0%			1	100.0%
Psychiatry	9	81.8%	2	18.2%	11	100.0%
Radiation Oncology	3	60.0%	2	40.0%	5	100.0%
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>78</b>	<b>76.5%</b>	<b>24</b>	<b>23.5%</b>	<b>102</b>	<b>100.0%</b>
Anatomical Pathology	3	100.0%			3	100.0%
General Pathology	2	100.0%			2	100.0%
Medical Microbiology	2	100.0%			2	100.0%

**TABLE C-5  
 POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2010  
 AT THE COMPLETION OF POST-M.D. TRAINING  
 (CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT  
 INCLUDED)  
 FIELD OF POST-M.D. TRAINING  
 BY  
 RANK**

Field of Post-M.D. Training	Residents		Fellows		Total	
	Count	Row %	Count	Row %	Count	Row %
<b>LAB/MEDICINE/SPECIALTIES SUBTOTAL</b>	<b>7</b>	<b>100.0%</b>			<b>7</b>	<b>100.0%</b>
Cardiac Surgery			1	100.0%	1	100.0%
Critical Care (Cardiac Surg.)			1	100.0%	1	100.0%
General Surgery	3	75.0%	1	25.0%	4	100.0%
Pediatric General Surgery	1	100.0%			1	100.0%
Thoracic Surgery	1	100.0%			1	100.0%
Vascular Surgery	1	100.0%			1	100.0%
Neurosurgery	3	100.0%			3	100.0%
Obstetrics/Gynecology	5	100.0%			5	100.0%
Gyn. Oncology	2	100.0%			2	100.0%
Gyn.Rep.Endocrin./Infertility	1	100.0%			1	100.0%
Maternal-Fetal Med. (Ob.)	2	100.0%			2	100.0%
Ophthalmology	1	25.0%	3	75.0%	4	100.0%
Otolaryngology - Head and Neck Surgery	1	100.0%			1	100.0%
Orthopedic Surgery	5	41.7%	7	58.3%	12	100.0%
Plastic Surgery	1	33.3%	2	66.7%	3	100.0%
Urology	2	100.0%			2	100.0%
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>29</b>	<b>65.9%</b>	<b>15</b>	<b>34.1%</b>	<b>44</b>	<b>100.0%</b>
<b>Total</b>	<b>217</b>	<b>84.8%</b>	<b>39</b>	<b>15.2%</b>	<b>256</b>	<b>100.0%</b>

## **Section D**

**Post-M.D. Trainees Exiting British Columbia  
Training Programs in**

**July, 2008**

**at the Completion of Post-M.D. Training**

**(Canadian Citizens and Permanent Residents Only -  
Visa Trainees Not Included)**

TABLE D-1  
POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2008  
AT THE COMPLETION OF POST-M.D. TRAINING  
(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)  
FIELD OF POST-M.D. TRAINING  
BY  
GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE

Field of Post-M.D. Training	Geographic Location, 2010												Total
	NFLD	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	N.T.	USA	NOT LOC.	
Family Medicine			1		2	2		1	68			3	67
Emergency Medicine (CFPC)					1			1	4				8
Enhanced Skills: Other Fam. Med. Training					2			1	10				13
<b>FAMILY MEDICINE SUBTOTAL</b>			1		5	2		3	72			3	86
Palliative Medicine					1				2				3
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>					1				2				3
Anesthesiology								1	7				8
Critical Care (Anes.)									1				1
Public Health and Preventive Medicine									3				3
Diagnostic Radiology						1	1		4			2	8
Pediatric Diagnostic Radiology									1				1
Emergency Medicine (RCPC)									2				2
Critical Care (Emergency Med.)									1				1
Internal Medicine									4				4
Critical Care (Int. Med.)									1				1
Endocrinology/Met. (Int. Med.)									1				1
Gastroenterology (Int. Med.)									2				2
Geriatric Medicine (Int. Med.)					1								1
Hematology (Int. Med.)									1				1
Infectious Diseases (Int. Med.)									1				1
Medical Oncology (Int. Med.)				1	1				2			1	5
Nephrology (Int. Med.)									3				3
Respirology (Int. Med.)								1	2				3
Rheumatology (Int. Med.)									1				1
Transfusion Med. (Int. Med.)									1				1
Medical Genetics								1					1
Neurology									1				1
Nuclear Medicine									1				1
Pediatrics									3	1			4
Developmental Pediatrics									2				2
Pediatric Emergency Med. (Ped.)									1				1
Hematology/Oncology (Ped.)	1				1	1						1	4
Neonatal-Perinatal Med. (Ped.)												2	2
Physical Medicine & Rehab.									1				1
Psychiatry					2			1	8				11
Radiation Oncology									1				1
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	1			1	5	2	1	4	66	1		6	77
Hematological Pathology									2				2
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>									2				2
Cardiac Surgery									1				1
General Surgery									4		1		5
Thoracic Surgery									1				1
Vascular Surgery									1				1
Obstetrics/Gynecology			1						5				6
Gyn. Rep. Endocrin./Infertility							1						1
Maternal-Fetal Med. (Ob.)									1				1
Ophthalmology									6				6
Otolaryngology - Head and Neck Surgery									1			1	2
Orthopedic Surgery				1	3	1			2				7
Plastic Surgery									2				2
Urology									3				3
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		1		1	3	1	1		27		1	1	36
<b>Total</b>	1	1	1	2	14	6	2	7	169	1	1	10	204



**TABLE D-1**  
**POST-M.D. TRAINEES EXITING CANADIAN TRAINING PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**WITH PRACTICE LOCATIONS IN BRITISH COLUMBIA, JULY 2010 CMA MASTERFILE**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING**

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Mar- times	Que.	Ont.	Man.	Sask.	Alta.	B.C.	
Family Medicine	1	3	7	4		14	58	87
Emergency Medicine (CFPC)	1	2	4			3	4	14
Enhanced Skills: Other Fam. Med. Training			1				10	11
<b>FAMILY MEDICINE SUBTOTAL</b>	<b>2</b>	<b>5</b>	<b>12</b>	<b>4</b>		<b>17</b>	<b>72</b>	<b>112</b>
Palliative Medicine							2	2
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>							<b>2</b>	<b>2</b>
Anesthesiology			1	1			7	9
Critical Care (Anes.)							1	1
Public Health and Preventive Medicine						1	3	4
Dermatology		1						1
Diagnostic Radiology		1			1	2	4	8
Pediatric Diagnostic Radiology							1	1
Emergency Medicine (RCPC)	1		1	1			2	5
Critical Care (Emergency Med.)							1	1
Internal Medicine					1	1	4	6
Cardiology (Int.Med.)						1		1
Critical Care (Int.Med.)							1	1
Endocrinology/Met. (Int.Med.)							1	1
Gastroenterology (Int.Med.)			1			1	2	4
Hematology (Int.Med.)							1	1
Infectious Diseases (Int.Med.)							1	1
Medical Oncology (Int.Med.)			1				2	3
Nephrology (Int.Med.)							3	3
Respirology (Int.Med.)							2	2
Rheumatology (Int.Med.)							1	1
Transfusion Med. (Int.Med.)							1	1
Neurology	1	1	1				1	4
Nuclear Medicine							1	1
Pediatrics						1	3	4
Endocrinology/Met. (Ped.)			1					1
Developmental Pediatrics							2	2
Pediatric Emergency Med. (Ped.)							1	1
Infectious Diseases (Ped.)			1					1
Physical Medicine & Rehab.							1	1
Psychiatry			1				8	9
Radiation Oncology			2				1	3
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>2</b>	<b>3</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>56</b>	<b>82</b>
General Pathology						1		1
Hematological Pathology							2	2
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>						<b>1</b>	<b>2</b>	<b>3</b>
Cardiac Surgery							1	1
General Surgery	1						4	5
Colorectal Surgery			1					1
Thoracic Surgery							1	1

**TABLE D-11**  
**POST-M.D. TRAINEES EXITING CANADIAN TRAINING PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**WITH PRACTICE LOCATIONS IN BRITISH COLUMBIA, JULY 2010 CMA MASTERFILE**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING**

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Mar- times	Que.	Ont.	Man.	Sask.	Alta.	B.C.	
Vascular Surgery							1	1
Obstetrics/Gynecology						2	5	7
Maternal-Fetal Med. (Ob.)							1	1
Ophthalmology		1	1		1		6	9
Otolaryngology - Head and Neck Surgery			1				1	2
Orthopedic Surgery		1	4			1	2	8
Plastic Surgery	1			1		2	2	6
Urology							3	3
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>27</b>	<b>46</b>
<b>Total</b>	<b>6</b>	<b>10</b>	<b>29</b>	<b>7</b>	<b>3</b>	<b>30</b>	<b>159</b>	<b>244</b>

**TABLE D-2**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)**  
**LOCATION OF RECEIPT OF THE M.D. DEGREE**  
**BY**  
**GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE**

Location of Receipt of the M.D. Degree	Geographic Location, 2010												Total
	NFLD	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	N.T.	USA	NOT LOC.	
Newfoundland	1				1				1				3
Maritimes		1							4				5
Quebec				2	3				6				11
Ontario			1		6	1		1	27				36
Manitoba						3			2		1		6
Saskatchewan							2		3			1	6
Alberta					1	1		3	22			2	29
British Columbia					3			3	73	1		2	82
Canadian M.D. Graduates Subtotal	1	1	1	2	14	5	2	7	159	1	1	5	178
International Medical Graduates									21			5	26
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>14</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>159</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>204</b>

**TABLE D-2i**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)**  
**(M.D. DEGREE RECEIVED IN BRITISH COLUMBIA)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE**

Field of Post-M.D. Training	Geographic Location, 2010				Total
	Ontario	Western	Territories	Not Reported	
FAMILY MEDICINE	1	33			34
TRAINING FOLLOWING F.M. OR SPEC.	1	1			2
MEDICAL SPECIALTIES	1	27	1	2	31
LAB MEDICINE SPECIALTIES		2			2
SURGICAL SPECIALTIES		13			13
<b>Total</b>	<b>3</b>	<b>76</b>	<b>1</b>	<b>2</b>	<b>82</b>

**TABLE D-2ii**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)**  
**(M.D. DEGREE RECEIVED IN OTHER CANADIAN PROVINCES)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE**

Field of Post-M.D. Training	Geographic Location, 2010						Total
	Atlantic	Quebec	Ontario	Western	USA/ Other	Not Reported	
FAMILY MEDICINE	1		4	31		2	38
TRAINING FOLLOWING F.M. OR SPEC.				1			1
MEDICAL SPECIALTIES	1	1	4	29			35
SURGICAL SPECIALTIES	1	1	3	15	1	1	22
<b>Total</b>	<b>3</b>	<b>2</b>	<b>11</b>	<b>76</b>	<b>1</b>	<b>3</b>	<b>96</b>

**TABLE D-2iii**  
**POST-M.D. TRAINEES EXITING BRITISH COLUMBIA TRAINING**  
**PROGRAMS IN JULY, 2008**  
**AT THE COMPLETION OF POST-M.D. TRAINING**  
**(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY -**  
**VISA TRAINEES NOT INCLUDED)**  
**(M.D. DEGREE RECEIVED OUTSIDE CANADA)**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE**

Field of Post-M.D. Training	Geographic Location, 2010		
	Western	Not Reported	Total
FAMILY MEDICINE	13	1	14
MEDICAL SPECIALTIES	7	4	11
SURGICAL SPECIALTIES	1		1
<b>Total</b>	<b>21</b>	<b>5</b>	<b>26</b>

TABLE D-3  
NATIONAL DATA  
POST-M.D. TRAINEES EXITING CANADIAN TRAINING PROGRAMS IN JULY, 2008  
AT THE COMPLETION OF POST-M.D. TRAINING  
(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)  
LOCATION OF RECEIPT OF THE M.D. DEGREE  
BY  
GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE

Location of Receipt of the M.D. Degree	Geographic Location, 2010															Total	
	NFLD	NS	PEI	NB	QUE	ONT	MAN	SASK	ALTA	BC	N.U.	N.T.	Y.T.	USA	OTH CTRY		NOT LOC.
Newfoundland	37			6	2	8		1	8	2				1			63
Maritimes	2	30	2	16		22	2		10	8		1		2		1	90
Quebec		3		20	402	39	1	1	8	12				6	1	39	532
Ontario	3	9		4	14	438	7	3	34	45				14	1	32	602
Manitoba		1		1	2	14	51	1	14	7				2		2	85
Saskatchewan		2			3	7	1	36	8	6		1		1		1	66
Alberta	1	2		3	2	30	6	4	104	36						6	193
British Columbia	4	3		1		20		1	16	66			2		1	4	148
Canadian M.D. Graduates Subtotal	47	50	2	50	425	578	67	47	200	212			1	26	3	69	1795
International Medical Graduates	4	9	1	7	24	179	10	11	35	32	1		1	1	1	60	369
Total	51	59	3	57	449	755	77	58	235	244	1	4	1	27	4	138	2161

TABLE D-4  
NATIONAL DATA  
POST-M.D. TRAINEES EXITING CANADIAN TRAINING PROGRAMS IN JULY, 2008  
AT THE COMPLETION OF POST-M.D. TRAINING  
(CANADIAN CITIZENS AND PERMANENT RESIDENTS ONLY - VISA TRAINEES NOT INCLUDED)  
LOCATION OF POST-M.D. TRAINING  
BY  
GEOGRAPHIC LOCATION, 2010 CMA MASTERFILE

Location of Post-M.D. Training	Geographic Location, 2010															Total	
	NFLD	NS	PEI	NB	QUE	ONT	MAN	SASK	ALTA	BC	N.U.	N.T.	Y.T.	USA	OTH CTRY		NOT LOC.
Memorial University	34	2		2	1	4			2							1	48
Dalhousie University	3	39	2	23		10	1	1	4	6					1	1	60
Université Laval				1	113	3								1		3	121
Université de Sherbrooke				16	83	2			1					1		13	118
Université de Montréal		1		2	143	6			1	2				2	1	18	178
McGill University	1	1		2	75	12	1		4	8				1		11	118
QUEBEC SUBTOTAL	1	2		21	414	23	1		6	10				6	1	45	633
University of Ottawa	2	2		4	11	165	1	1	3	6	1	1		4		6	147
Queen's University	1	1	1	2	1	54	2	1	4	2						3	72
University of Toronto	4	5		2	10	292	3	2	15	14				5		38	358
McMaster University	4	2		1		116	1	1	1	3				4		13	145
University of Western Ontario					6	102	2	1	3	3				5		8	130
Northern Ontario School of Medicine						6	1			1							7
ONTARIO SUBTOTAL	11	10	1	9	28	674	10	6	29	29	1	1		18		65	930
University of Manitoba		1				12	64		2	6	7			1		3	87
University of Saskatchewan		1				3		40	6	3			1			1	84
University of Alberta	1				2	9	2	3	100	11				2	2	6	138
University of Calgary		4		1	2	6	4	4	78	19			2			3	123
ALBERTA SUBTOTAL	1	4		1	4	15	6	7	178	30			2	2		9	251
University of British Columbia	1	1		1	2	14	5	2	7	159			1	1		10	264
Total	51	59	3	57	449	755	77	58	235	244	1	4	1	27	4	138	2161

# **Section E**

**Time Series 2006-07 to 2010-11**

TABLE E-1  
POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS  
FIELD OF POST-M.D. TRAINING  
BY  
LOCATION OF UNIVERSITY WHICH AWARDED THE M.D. DEGREE  
2006/07 to 2010/11

Field of Post-M.D. Training	2006			2007			2008			2009			2010		
	Canada	Outside Canada	Total	Canada	Outside Canada	Total	Canada	Outside Canada	Total	Canada	Outside Canada	Total	Canada	Outside Canada	Total
Family Medicine	159	23	182	180	27	207	195	29	224	204	36	240	218	34	252
Row %	87.4%	12.6%	100.0%	87.0%	13.0%	100.0%	87.1%	12.9%	100.0%	86.0%	15.0%	100.0%	86.5%	13.5%	100.0%
Medical Specialties	334	207	601	446	229	675	467	229	716	514	267	781	540	255	795
Row %	55.6%	34.4%	100.0%	56.1%	33.9%	100.0%	58.0%	32.0%	100.0%	55.8%	34.2%	100.0%	57.9%	32.1%	100.0%
Lab Medicine Specialties	23	14	37	23	14	37	25	19	44	31	20	51	25	20	46
Row %	62.2%	37.8%	100.0%	62.2%	37.8%	100.0%	56.8%	43.2%	100.0%	60.8%	39.2%	100.0%	56.5%	43.5%	100.0%
Surgical Specialties	170	55	225	185	50	236	199	53	252	206	52	258	204	62	266
Row %	75.6%	24.4%	100.0%	78.8%	21.2%	100.0%	79.0%	21.0%	100.0%	79.8%	20.2%	100.0%	76.7%	23.3%	100.0%
Total	748	299	1045	835	320	1155	906	330	1236	955	375	1330	985	371	1359
Row %	71.4%	28.6%	100.0%	72.3%	27.7%	100.0%	73.3%	26.7%	100.0%	74.8%	26.2%	100.0%	72.7%	27.3%	100.0%

TABLE E-2  
POST-M.D. TRAINEES IN BRITISH COLUMBIA TRAINING PROGRAMS  
FIELD OF POST-M.D. TRAINING  
BY  
SOURCE OF FUNDING  
2006/07 to 2010/11

Field of Post-M.D. Training	2006			2007			2008			2009			2010		
	Reg. Min. Funds	Other Funds	Total	Reg. Min. Funds	Other Funds	Total	Reg. Min. Funds	Other Funds	Total	Reg. Min. Funds	Other Funds	Total	Reg. Min. Funds	Other Funds	Total
Family Medicine	178	4	182	207	6	213	217	7	224	236	4	240	243	4	252
Row %	97.8%	2.2%	100.0%	97.1%	2.9%	100.0%	96.9%	3.1%	100.0%	98.3%	1.7%	100.0%	98.4%	1.6%	100.0%
Medical Specialties	383	218	601	445	230	675	489	227	716	541	240	781	564	231	795
Row %	63.7%	36.3%	100.0%	65.9%	34.1%	100.0%	68.3%	31.7%	100.0%	69.3%	30.7%	100.0%	70.9%	29.1%	100.0%
Lab Medicine Specialties	26	11	37	27	10	37	28	16	44	39	12	51	35	10	46
Row %	70.3%	29.7%	100.0%	73.0%	27.0%	100.0%	63.6%	36.4%	100.0%	78.5%	23.5%	100.0%	78.3%	21.7%	100.0%
Surgical Specialties	164	61	225	173	58	236	192	60	252	199	65	268	191	75	266
Row %	72.9%	27.1%	100.0%	75.4%	24.6%	100.0%	76.2%	23.8%	100.0%	74.8%	25.2%	100.0%	71.8%	28.2%	100.0%
Total	751	294	1045	851	304	1155	926	310	1236	1009	321	1330	1039	320	1359
Row %	71.9%	28.1%	100.0%	73.7%	26.3%	100.0%	74.9%	25.1%	100.0%	75.9%	24.1%	100.0%	76.5%	23.5%	100.0%

**TABLE E-3**  
**GRADUATES OF CANADIAN MEDICAL SCHOOLS**  
**EXITING FROM BRITISH COLUMBIA TRAINING PROGRAMS AT THE COMPLETION OF TRAINING**  
**FIELD OF POST-M.D. TRAINING (DURING LAST YEAR OF TRAINING)**  
**EXITING POST-M.D. TRAINING, 2006 to 2010**

Field of Post-M.D. Training	2006		2007		2008		2009		2010	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Family Medicine	67	43.5%	63	38.7%	72	40.4%	82	40.6%	81	36.5%
Medical Specialties	53	34.4%	63	38.7%	69	38.8%	83	41.1%	94	42.3%
Lab Medicine Specialties	6	3.9%	4	2.5%	2	1.1%	4	2.0%	6	2.7%
Surgical Specialties	28	18.2%	33	20.2%	35	19.7%	33	16.3%	41	18.5%
<b>Total</b>	<b>154</b>	<b>100.0%</b>	<b>163</b>	<b>100.0%</b>	<b>178</b>	<b>100.0%</b>	<b>202</b>	<b>100.0%</b>	<b>222</b>	<b>100.0%</b>

**TABLE E-4**  
**INTERNATIONAL MEDICAL GRADUATES**  
**EXITING FROM BRITISH COLUMBIA TRAINING PROGRAMS AT THE COMPLETION OF TRAINING**  
**BY**  
**LEGAL STATUS**  
**EXITING POST-M.D. TRAINING (DURING LAST YEAR OF TRAINING)**

Field of Post-M.D. Training	2006			2007			2008			2009			2010		
	CC/PR	Visa	Total	CC/PR	Visa	Total	CC/PR	Visa	Total	CC/PR	Visa	Total	CC/PR	Visa	Total
Family Medicine	9	0	9	14	0	14	12	1	13	18	0	18	18	0	18
Medical Specialties	45.0%	.0%	6.4%	53.8%	.0%	9.2%	54.5%	.9%	9.4%	52.9%	.0%	52.9%	52.9%	.0%	52.9%
Lab Medicine Specialties	9	84	93	11	80	101	6	82	88	12	100	112	12	100	112
	45.0%	69.4%	66.0%	42.3%	70.9%	66.0%	27.3%	70.1%	63.3%	35.3%	76.9%	68.3%	35.3%	76.9%	68.3%
Lab Medicine Specialties	0	4	4	0	2	2	2	2	4	1	4	5	1	4	5
	0%	3.3%	2.8%	0%	1.6%	1.3%	9.1%	1.7%	2.9%	2.9%	3.1%	3.0%	2.9%	3.1%	3.0%
Surgical Specialties	2	33	35	1	35	36	2	32	34	3	26	29	3	26	29
	10.0%	27.3%	24.8%	3.8%	27.8%	23.5%	9.1%	27.4%	24.5%	8.6%	20.0%	17.7%	8.6%	20.0%	17.7%
<b>Total</b>	<b>20</b>	<b>121</b>	<b>141</b>	<b>28</b>	<b>127</b>	<b>153</b>	<b>22</b>	<b>117</b>	<b>139</b>	<b>34</b>	<b>130</b>	<b>164</b>	<b>34</b>	<b>130</b>	<b>164</b>
	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

CC/PR: Canadian Citizens and Permanent Residents



## **Section F**

**M.D. Graduates From the Province of British Columbia  
Registered in Canadian Post-M.D. Training Programs**

Section F

AFMC Data

M.D. Degrees Awarded by Canadian Universities 1982 to 2011\*\*  
By University Awarding M.D.  
(Calendar Year Totals)

Year Année	University and Province / Université et Province																				Total
	NL	NS	Québec					Ontario						Man	Sask	Alberta			BC		
	Mem	Dal	Lav	Sher	Mil	McG	Total	Ott	Qns	Tor	McM	UWO	NOS	Total	Man	Sask	Alta	Cal	Total	UBC	
1982	58	96	141	92	199	156	588	72	72	245	98	105	..	592	86	54	121	71	192	90	1756
1983	55	94	155	93	194	152	594	87	75	243	100	103	..	608	104	61	118	68	186	92	1794
1984	48	92	152	90	197	155	594	75	80	236	94	105	..	590	91	57	113	71	184	117	1773
1985	57	90	163	97	197	154	611	88	78	247	106	103	..	622	95	58	113	69	182	120	1835
1986	52	85	138	96	192	155	581	78	70	240	100	103	..	591	92	58	109	69	178	121	1758
1987	49	98	129	108	174	155	566	82	71	239	97	100	..	589	92	61	115	72	187	124	1766
1988	55	94	137	103	186	152	578	74	73	244	105	109	..	605	89	57	120	65	185	118	1781
1989	54	97	125	85	173	154	537	77	70	236	102	102	..	587	93	57	104	70	174	123	1722
1990	56	90	121	95	162	148	526	78	71	245	99	100	..	593	86	54	116	74	190	113	1708
1991	58	91	119	86	158	152	515	83	73	251	98	99	..	604	76	54	115	68	183	123	1704
1992	59	81	145	89	170	154	558	77	72	246	98	104	..	597	82	55	123	73	196	121	1749
1993	51	83	112	94	158	144	508	84	72	248	102	105	..	611	81	64	117	72	189	115	1702
1994	55	86	112	97	158	145	512	75	74	242	90	106	..	587	79	64	121	70	191	112	1686
1995	63	83	129	92	178	146	545	90	71	253	100	93	..	607	85	55	111	70	181	120	1739
1996	54	85	128	101	158	137	524	78	71	242	100	95	..	586	76	62	113	67	180	118	1685
1997	55	81	132	91	161	136	520	80	73	174	89	94	..	510	69	55	112	57	169	118	1577
1998	57	87	133	96	154	127	510	87	78	167	107	93	..	532	68	54	103	71	174	122	1604
1999	59	81	148	90	148	114	500	79	73	181	97	98	..	528	71	50	108	72	180	125	1594
2000	60	90	108	87	160	109	464	84	75	167	103	101	..	530	74	58	105	74	179	123	1578
2001	59	88	106	84	142	105	437	84	75	175	93	105	..	532	72	56	108	76	184	109	1537
2002	59	87	117	91	137	112	457	83	70	164	101	98	..	516	69	55	104	77	181	119	1543
2003	62	91	120	104	153	125	502	91	81	179	114	104	..	569	74	54	104	93	197	114	1663
2004	61	90	130	98	168	132	528	95	78	188	129	109	..	599	75	53	122	112	234	116	1756
2005	63	89	140	113	175	135	563	123	90	189	135	125	..	662	82	57	129	101	230	131	1877
2006	56	84	151	124	187	148	610	135	100	190	142	135	..	702	89	56	125	110	235	126	1958
2007	58	101	178	137	201	156	672	134	97	204	135	132	..	702	87	64	135	104	239	123	2046
2008	59	97	158	146	220	168	692	132	97	189	153	132	..	703	88	59	125	105	230	195	2123
2009	63	93	186	153	253	171	763	153	101	206	149	133	55	797	90	60	126	127	253	220	2339
2010	61	105	202	189	236	179	806	147	99	223	156	139	52	816	105	57	139	143	282	216	2448
2011**	65	100	197	188	263	165	813	154	101	223	184	144	59	865	95	73	143	163	306	256	2573

Source: AFMC, Canadian Medical Education Statistics

\*\* Preliminary data

**TABLE F-1  
ALL M.D. GRADUATES OF UNIVERSITY OF BRITISH COLUMBIA  
REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010  
BY  
FIELD OF POST-M.D. TRAINING  
YEAR OF RECEIPT OF THE M.D. DEGREE**

Field of Post-M.D. Training	Year of Receipt of the M.D. Degree											Total			
	1989	1992	1995	1996	1999	2002	2003	2004	2005	2006	2007		2008	2009	2010
Family Medicine									1		1	13	65	70	150
Emergency Medicine (CFPC)									1			17			18
Enhanced Skills: Other Fam. Med. Training								1			1	7			9
<b>FAMILY MEDICINE SUBTOTAL</b>								2	2		2	37	65	70	177
Palliative Medicine												1			1
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>												1			1
Anesthesiology	1						1		2	8	7	10	21	18	69
Public Health and Preventive Medicine								1	1	1	1	1			4
Dermatology							1		1	1	3	2	2	2	10
Diagnostic Radiology							2		2	5	7	9	14	9	48
Emergency Medicine (RCPSC)								1	1	4	4	2	4	5	20
Critical Care (Emergency Med.)							1		2	4	3	27	28	38	104
Internal Medicine		1					2	4	4	4	4	4	4		14
Cardiology (Int.Med.)									1	1	2	2	2		3
Critical Care (Int.Med.)									1	1	2	2	2		2
Endocrinology/Met. (Int.Med.)									2	1	1	1	1		1
Gastroenterology (Int.Med.)									1	1	1	1	1		3
Geriatric Medicine (Int.Med.)									2	1	1	1	1		2
Hematology (Int.Med.)								1	1	1	1	1	1		1
Infectious Diseases (Int.Med.)									2	2	2	2	1		6
Nephrology (Int.Med.)									1	1	1	1	1		3
Respirology (Int.Med.)							1		1	1	1	1	1		2
Rheumatology (Int.Med.)									1	1	1	1	1		2
Medical Genetics									1	1	1	1	1		2
Neurology									5	5	4	4	1	3	13
Neurology (Pediatrics)							1	1	1	1	1	1	1		3
Nuclear Medicine									1	1	1	1	1		2
Pediatrics									1	1	6	9	8	9	32

TABLE F-1  
ALL M.D. GRADUATES OF UNIVERSITY OF BRITISH COLUMBIA  
REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010  
FIELD OF POST-M.D. TRAINING  
BY  
YEAR OF RECEIPT OF THE M.D. DEGREE

Field of Post-M.D. Training	Year of Receipt of the M.D. Degree											Total			
	1989	1992	1995	1996	1999	2002	2003	2004	2005	2006	2007		2008	2009	2010
Adolescent Medicine (Ped.)									1						1
Cardiology (Ped.)						1			1						2
Clin. Imm./Allergy (Ped.)											1				1
Hematology/Oncology (Ped.)										1					1
Neonatal-Perinatal Med. (Ped.)							1								1
Nephrology (Ped.)									1						1
Rheumatology (Ped.)									2						3
Physical Medicine & Rehab.				1					1			2	2	4	9
Psychiatry	1						1			8	6	12	15	13	61
Radiation Oncology									1			1			3
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>10</b>	<b>27</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>79</b>	<b>104</b>	<b>104</b>	<b>438</b>
Laboratory Med. (Undifferentiated)															2
Anatomical Pathology							1				1	4	1	2	9
General Pathology								1					2	1	4
Hematological Pathology									1		1		1		3
Medical Biochemistry									1					1	2
Medical Microbiology											1	2	1		4
Neuropathology														1	1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>							<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>25</b>
Cardiac Surgery									1						2
General Surgery							1	5	4	2	2	11	9	8	40
Gen. Surgical Oncology								1							1
Pediatric General Surgery						1									1
Thoracic Surgery							1								1
Neurosurgery									1						1
Obstetrics/Gynecology						1	2	2	1	1	1		3		10
Gyn. Oncology								2	5	2	2	6	8	9	32
Maternal-Fetal Med. (Ob.)						1		1							1
Ophthalmology					1		1	2	2	2	1	1	5	3	16

**TABLE F-1**  
**ALL M.D. GRADUATES OF UNIVERSITY OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**YEAR OF RECEIPT OF THE M.D. DEGREE**

Field of Post-M.D. Training	Year of Receipt of the M.D. Degree												Total		
	1989	1992	1995	1996	1999	2002	2003	2004	2005	2006	2007	2008		2009	2010
Otolaryngology - Head and Neck Surgery						1				1	2	1	3	2	9
Orthopedic Surgery						1				3	9	4	3	5	25
Plastic Surgery						1				2	1	2	5		11
Urology										3	3	2	5	2	15
<b>SURGICAL SPECIALTIES SUBTOTAL</b>					1	2	3	6	14	21	21	27	41	30	166
<b>Total</b>	2	1	1	1	1	3	7	17	43	77	78	150	215	211	807

**TABLE F-2a**  
**ALL M.D. GRADUATES FROM BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010**  
**YEAR OF RECEIPT OF THE M.D. DEGREE**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING**

Year M.D. Degree Received	Newfoundland		Maritimes		Quebec		Ontario		Manitoba		Saskatchewan		Alberta		British Columbia		Total		
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %	
1989																			
1992							1	100.0%						1	50.0%	1	100.0%	2	100.0%
1995							2	66.7%								1	100.0%	1	100.0%
1996							2	28.6%								1	100.0%	1	100.0%
1999							4	23.5%								1	100.0%	1	100.0%
2002																1	100.0%	1	100.0%
2003																1	33.3%	3	100.0%
2004																5	71.4%	7	100.0%
2005	1	2.3%	1	5.9%	4	9.3%	13	30.2%	1	2.3%			5	29.4%	7	41.2%	17	100.0%	
2006	1	1.3%	2	4.7%	1	1.3%	8	10.4%	2	2.6%			5	11.6%	17	39.5%	43	100.0%	
2007			5	6.5%	1	1.3%	24	30.8%	2	2.6%	1	1.3%	4	5.2%	55	71.4%	77	100.0%	
2008	3	2.0%	4	5.1%	2	2.6%	37	24.7%	1	1.3%	2	2.6%	12	15.4%	33	42.3%	78	100.0%	
2009	4	1.9%	13	6.0%	3	2.0%	36	16.7%	1	1.4%	3	2.0%	10	6.7%	88	58.7%	150	100.0%	
2010	2	.9%	11	5.2%	4	1.9%	39	18.5%	6	2.8%	8	3.8%	37	17.2%	104	48.4%	215	100.0%	
Total	11	1.4%	41	5.1%	20	2.5%	156	20.6%	14	1.7%	26	3.2%	117	14.5%	412	51.4%	807	100.0%	

**TABLE F-2b**  
**ALL M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010**  
**YEAR OF RECEIPT OF THE M.D. DEGREE**  
**BY**  
**REGION OF POST-M.D. TRAINING**

Year M.D. Degree Received	Atlantic		Quebec		Ontario		Western		Total	
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
1989							2	100.0%	2	100.0%
1992							1	100.0%	1	100.0%
1995							1	100.0%	1	100.0%
1996					1	100.0%			1	100.0%
1999							1	100.0%	1	100.0%
2002					2	66.7%	1	33.3%	3	100.0%
2003					2	28.6%	5	71.4%	7	100.0%
2004	1	5.9%			4	23.5%	12	70.6%	17	100.0%
2005	3	7.0%	4	9.3%	13	30.2%	23	53.5%	43	100.0%
2006	6	7.8%	1	1.3%	8	10.4%	62	80.5%	77	100.0%
2007	4	5.1%	2	2.6%	24	30.8%	48	61.5%	78	100.0%
2008	8	5.3%	3	2.0%	37	24.7%	102	68.0%	150	100.0%
2009	17	7.9%	6	2.8%	36	16.7%	156	72.6%	215	100.0%
2010	13	6.2%	4	1.9%	39	18.5%	155	73.5%	211	100.0%
<b>Total</b>	<b>52</b>	<b>6.4%</b>	<b>20</b>	<b>2.5%</b>	<b>166</b>	<b>20.6%</b>	<b>569</b>	<b>70.5%</b>	<b>807</b>	<b>100.0%</b>

TABLE F-3a  
 2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA  
 REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2004  
 FIELD OF POST-M.D. TRAINING  
 BY  
 PROVINCE PROVIDING POST-M.D. TRAINING (2004)

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Nfld.	Maritimes	Quebec	Ontario	Manitoba	Alberta	British Columbia	
Family Medicine		2		9		3	22	36
<b>FAMILY MEDICINE SUBTOTAL</b>		2		9		3	22	36
Anesthesiology	1	1	1	1	1		7	12
Public Health and Preventive Medicine							1	1
Dermatology			1			1		2
Diagnostic Radiology		1				2	3	6
Internal Medicine				3	1	1	6	11
Neurology							1	1
Neurology (Pediatrics)				1				1
Nuclear Medicine						1		1
Pediatrics				1		1	3	6
Physical Medicine & Rehab.							1	1
Psychiatry		1		2			5	8
Radiation Oncology							2	2
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	1	3	2	8	2	6	29	51
Laboratory Med. (Undifferentiated)		1						1
Anatomical Pathology						1		1
General Pathology						1	4	5
Medical Microbiology				1				1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>		1		1		2	4	8
General Surgery		1					1	2
Neurosurgery				1		2		3
Obstetrics/Gynecology		1				2		3
Ophthalmology		1					1	2
Orthopedic Surgery				1		1	2	4
Plastic Surgery							1	1
Urology							1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		3		2		5	6	16
<b>Total</b>	1	9	2	20	2	16	61	111



**TABLE F-3b**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2005**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2005)**

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Nfld.	Maritimes	Quebec	Ontario	Manitoba	Alberta	British Columbia	
Family Medicine		2		8		6	23	39
<b>FAMILY MEDICINE SUBTOTAL</b>		2		8		6	23	39
Anesthesiology	1	1	1	1	1		7	12
Public Health and Preventive Medicine							1	1
Dermatology			1			1		2
Diagnostic Radiology		1		1		2	3	7
Internal Medicine				3	1	2	5	11
Neurology							1	1
Neurology (Pediatrics)				1				1
Nuclear Medicine						1		1
Pediatrics				1		1	3	5
Physical Medicine & Rehab.							1	1
Psychiatry		1		2			6	9
Radiation Oncology							2	2
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	1	3	2	9	2	7	29	53
Anatomical Pathology							3	3
General Pathology		1				1	1	3
Medical Microbiology				1				1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>		1		1		1	4	7
General Surgery		1		1			2	4
Neurosurgery						2		2
Obstetrics/Gynecology		1				1		2
Ophthalmology		1					1	2
Orthopedic Surgery				1		1	2	4
Plastic Surgery							1	1
Urology							1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		3		2		4	7	16
<b>Total</b>	1	9	2	20	2	18	63	115

**TABLE F-3c**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2006**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2006)**

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Nfld.	Maritimes	Quebec	Ontario	Manitoba	Alberta	British Columbia	
Family Medicine						3	1	4
Emergency Medicine (CFPC)		1				2	1	4
Enhanced Skills: Other Fam. Med. Training							1	1
<b>FAMILY MEDICINE SUBTOTAL</b>		1				5	3	9
Palliative Medicine				1				1
<b>TRAINING FOLLOWING FAMILY MEDICINE OR SPECIALTY SUBTOTAL</b>				1				1
Anesthesiology	1	1	1	1	1		7	12
Public Health and Preventive Medicine							1	1
Dermatology			1			1		2
Diagnostic Radiology				1		2	3	6
Internal Medicine				3	1	2	5	11
Neurology							1	1
Neurology (Pediatrics)				1				1
Nuclear Medicine						1		1
Pediatrics				1		1	3	5
Physical Medicine & Rehab.							1	1
Psychiatry		1		2			6	9
Radiation Oncology							2	2
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	1	2	2	9	2	7	29	62
Anatomical Pathology							2	2
General Pathology		1				1	1	3
Medical Microbiology				1				1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>		1		1		1	3	6
General Surgery		1		1			2	4
Neurosurgery						2		2
Obstetrics/Gynecology		1				1		2
Ophthalmology		2				1	1	4
Orthopedic Surgery				1		1	2	4
Plastic Surgery							1	1
Urology							1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		4		2		5	7	18
<b>Total</b>	1	8	2	13	2	18	42	86

**TABLE F-3d**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2007**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2007)**

Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Nfld.	Maritimes	Quebec	Ontario	Manitoba	Alberta	British Columbia	
Family Medicine							1	1
Emergency Medicine (CFPC)							1	1
Enhanced Skills: Other Fam. Med. Training				1		1		2
<b>FAMILY/MEDICINE/SUBTOTAL</b>				1		1	2	4
Anesthesiology	1	1	1	1	1		6	11
Public Health and Preventive Medicine							1	1
Dermatology			1			1		2
Diagnostic Radiology				1		2	3	6
Emergency Medicine (RCPC)							1	1
Internal Medicine				2		1	2	5
Cardiology (Int.Med.)		1			1		2	4
Endocrinology/Met. (Int.Med.)				1				1
Gastroenterology (Int.Med.)				1				1
Nephrology (Int.Med.)							1	1
Neurology							1	1
Neurology (Pediatrics)				1				1
Nuclear Medicine						1		1
Pediatrics				1		1	3	5
Physical Medicine & Rehab.							1	1
Psychiatry		1		2			6	9
Radiation Oncology							2	2
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	1	3	2	10	2	6	29	63
Anatomical Pathology							2	2
General Pathology		1				1	1	3
Medical Microbiology				1				1
<b>LAB/MEDICINE SPECIALTIES SUBTOTAL</b>		1		1		1	3	6
General Surgery		1		1			2	4
Neurosurgery						2		2
Obstetrics/Gynecology		1				1		2
Ophthalmology		2				1	1	4
Orthopedic Surgery				1		1	2	4
Plastic Surgery							1	1
Urology							1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		4		2		5	7	18
<b>Total</b>	1	8	2	14	2	13	41	81

**TABLE F-3e**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2008**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2008)**

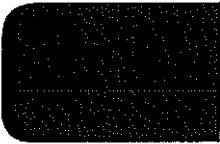
Field of Post-M.D. Training	Province Providing Post-M.D. Training							Total
	Nfld.	Maritimes	Quebec	Ontario	Manitoba	Alberta	British Columbia	
Anesthesiology	1	1	1	1	1		6	11
Public Health and Preventive Medicine							1	1
Dermatology			1			1		2
Diagnostic Radiology				1		2	3	6
Emergency Medicine (RCPSC)							1	1
Internal Medicine							1	1
Cardiology (Int.Med.)		1			1		2	4
Endocrinology/Met. (Int.Med.)				1				1
Gastroenterology (Int.Med.)				1				1
Nephrology (Int.Med.)							1	1
Respirology (Int.Med.)							1	1
Neurology							1	1
Neurology (Pediatrics)				1				1
Nuclear Medicine						1		1
Pediatric Emergency Med. (Ped.)							1	1
Neonatal-Perinatal Med. (Ped.)				1				1
Physical Medicine & Rehab.							1	1
Psychiatry		1		1			6	8
Radiation Oncology							1	1
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>26</b>	<b>45</b>
Anatomical Pathology							2	2
General Pathology		1				1	1	3
Medical Microbiology				1				1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>		<b>1</b>		<b>1</b>		<b>1</b>	<b>3</b>	<b>6</b>
General Surgery		1		1			2	4
Neurosurgery						2		2
Obstetrics/Gynecology		1				1		2
Ophthalmology		2				1	1	4
Orthopedic Surgery				1		1	2	4
Plastic Surgery							1	1
Urology							1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		<b>4</b>		<b>2</b>		<b>5</b>	<b>7</b>	<b>18</b>
<b>Total</b>	<b>1</b>	<b>8</b>	<b>2</b>	<b>10</b>	<b>2</b>	<b>10</b>	<b>36</b>	<b>69</b>

**TABLE F-3f**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2009**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2009)**

Field of Post-M.D. Training	Province Providing Post-M.D. Training					Total
	Maritimes	Ontario	Manitoba	Alberta	British Columbia	
Anesthesiology					2	2
Public Health and Preventive Medicine					1	1
Dermatology				1		1
Diagnostic Radiology				1	3	4
Emergency Medicine (RCPC)					1	1
Internal Medicine					1	1
Cardiology (Int.Med.)	1		1		1	3
Respirology (Int.Med.)					1	1
Neurology (Pediatrics)		1				1
Pediatric Emergency Med. (Ped.)					1	1
Psychiatry		1			2	3
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>19</b>
Anatomical Pathology					2	2
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>					<b>2</b>	<b>2</b>
General Surgery	1				2	3
Thoracic Surgery		1				1
Neurosurgery				2		2
Gyn. Oncology				1		1
Ophthalmology	1			1	2	4
Orthopedic Surgery					2	2
Plastic Surgery					1	1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>	<b>2</b>	<b>1</b>		<b>4</b>	<b>7</b>	<b>14</b>
<b>Total</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>6</b>	<b>22</b>	<b>35</b>

**TABLE F-3g**  
**2004 M.D. GRADUATES FROM THE PROVINCE OF BRITISH COLUMBIA**  
**REGISTERED IN CANADIAN POST-M.D. TRAINING PROGRAMS IN 2010**  
**FIELD OF POST-M.D. TRAINING**  
**BY**  
**PROVINCE PROVIDING POST-M.D. TRAINING (2010)**

Field of Post-M.D. Training	Province Providing Post-M.D. Training				Total
	Maritimes	Ontario	Alberta	British Columbia	
Anesthesiology		1			1
Dermatology			1		1
Diagnostic Radiology			1	1	2
Cardiology (Int.Med.)				2	2
Respirology (Int.Med.)				1	1
Neurology (Pediatrics)		1			1
Neonatal-Perinatal Med. (Ped.)	1				1
Psychiatry				1	1
<b>MEDICAL SPECIALTIES SUBTOTAL</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>10</b>
Anatomical Pathology				1	1
<b>LAB MEDICINE SPECIALTIES SUBTOTAL</b>				<b>1</b>	<b>1</b>
General Surgery				1	1
Thoracic Surgery		1			1
Neurosurgery		1	1		2
Gyn. Oncology			1		1
Ophthalmology			1		1
<b>SURGICAL SPECIALTIES SUBTOTAL</b>		<b>2</b>	<b>3</b>	<b>1</b>	<b>6</b>
<b>Total</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>17</b>

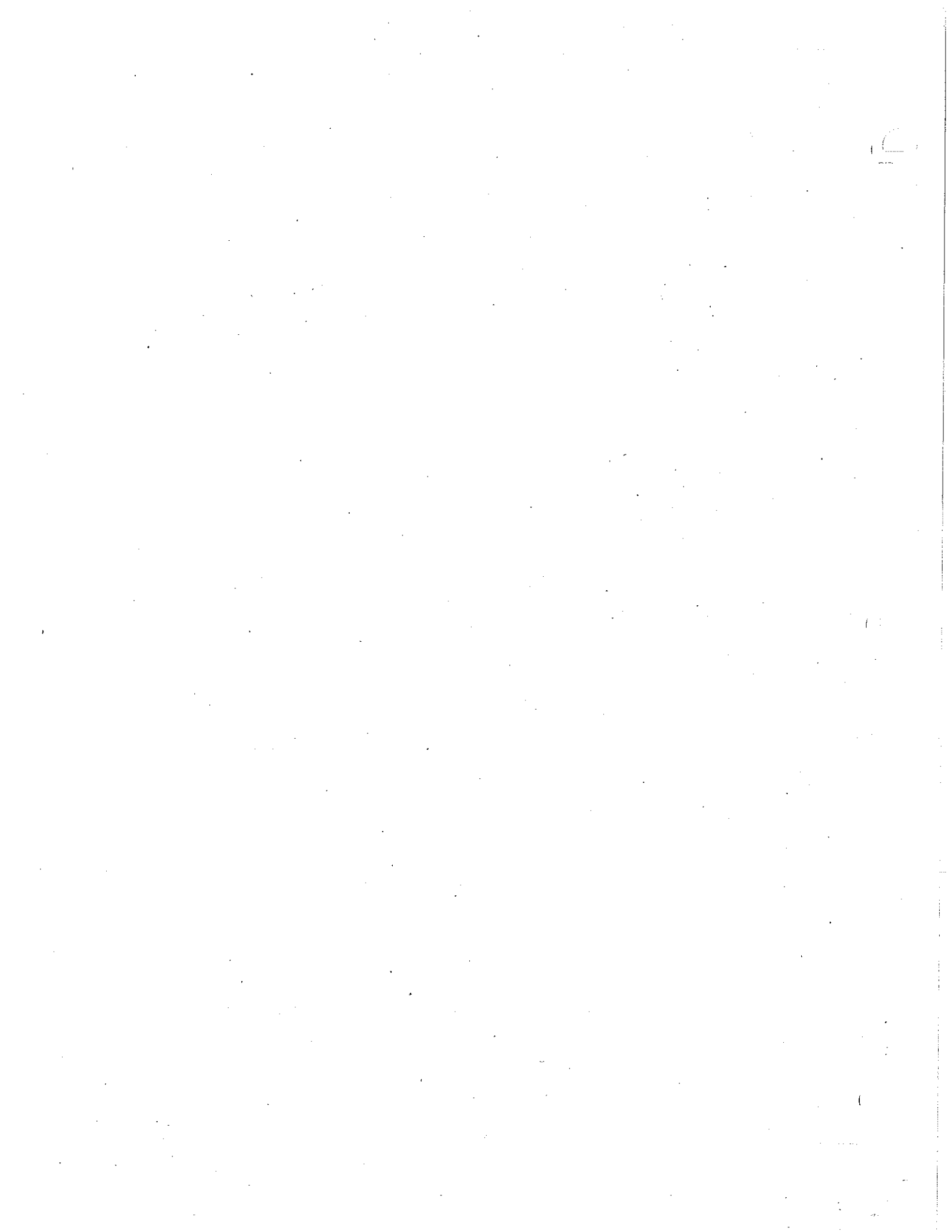


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# **Solutions to the Medical Doctor Shortage in BC**

**A Plan on How to Integrate More Immigrant IMGs into the BC Healthcare System.**

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Submitted to the Minister of Health, Honorable George Abbott, Victoria BC by the Association of International Medical Doctors of British Columbia

October 2<sup>nd</sup> 2006

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## Introduction

The association of International Medical Doctors of BC (AIMD BC) is a grass roots organization of over 300 international medical graduates (IMGs) interested in working with stakeholders to more effectively integrate the many Canadian citizens and landed immigrants who have been trained as medical doctors outside of Canada. Specifically those IMGs who are required by the College of Physicians and Surgeons of BC (CPSBC) to repeat their post graduate residency training.

*"According to the BCMA, the number of B.C. general practitioners accepting new patients has dropped dramatically, from 1,420 in April 1999 to 599 in March 2004, a 58-per-cent decline."*

*Krisendra Bisetty  
and Norma  
Greenaway  
Vancouver Sun  
October 29 2004  
Quoting the BCMA  
'Physician Supply  
and Distribution in  
BC Fact Sheet'*

It is a great pleasure to be asked by the Minister of Health, the honourable George Abbott, to put together a document outlining our ideas about how to integrate more IMGs into the BC healthcare system. We are grateful to be living in such a great country as Canada. A country founded on the rule of law, civil rights and a system of 'Freedom and Democracy.' We hope that by working with government we can contribute to the process of creating an equitable, efficient and transparent system for greater IMG assimilation.

We would be remiss if we did not also thank the government directly for tripling the number of residencies available to IMGs in BC for the 2006 intake as well as being open to having a representative of AIMD BC at the monthly 'IMG Integration Taskforce' meetings. We believe that these recent changes and the request for our input on how to move forward on IMG issues, marks a new chapter in IMG/Government relations and we look forward to working with the Minister of Health to do what we can to ease the current medical doctor shortage in BC.

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## Current Situation in BC

In British Columbia there is a critical medical doctor shortage and according to the BC Medical Association this province needs more than 400 new physicians each year to replace those retiring, moving to other jurisdictions, or reducing the time spent practicing<sup>1</sup>. Since 2002 the provincial Liberal government has implemented a plan to double the number of Canadian medical graduates from 128 to 256 by the year 2010. This ramping up of our graduate capacity was clearly needed as BC had only 3.2 medical school spaces per 100,000 people in 2002, the lowest of any province in the country. The September 2006 intake class size is 232<sup>2</sup>; if all of them graduate in 2010 that still leaves a shortfall of 168 doctors for that graduating year. Of course this is an improvement over the shortfall this year which is over 270 doctors.

Currently the average family practitioner in Canada is 46 and for specialists the age is 50.<sup>3</sup> Other challenges facing the medical profession in Canada include reduced hours of work by doctors entering

the workforce; fewer BC doctors accepting patients; fewer doctors electing to work in obstetrics, emergency departments, hospital in-patient wards and nursing homes as well as increased demand for doctors across the country and around the world.

Four million Canadians do not have a family physician and in BC the number is 200,000.<sup>4</sup> Canada already loses too many of its specialist graduates to the United States annually and, according to the American Medical Association, demand for Canadian doctors is going to continue to increase. We are already competing with all other industrialized countries of the world for medical staff and this competition is going to get much tougher as each year goes by.

*"By 2011, it is estimated that 100 percent of Canada's net labour force growth will depend on immigration"*

*Citizenship and Immigration Canada,  
[www.cic.gc.ca/english/pub/anrep01.html](http://www.cic.gc.ca/english/pub/anrep01.html)*

At the same time that this crisis is unfolding BC attracts the highest number of IMGs in the country after Ontario and Quebec. In any given year BC has between 600-900 IMGs looking for work in their field. Many of these doctors are Canadian citizens, have passed all our national qualifications and standards exams, speak the languages of our main immigrant populations and are willing to work in under-serviced areas of the province. In Ontario it is estimated that there are as many as 5000 IMGs<sup>5</sup> and in Alberta as many as 700<sup>6</sup>.

British Columbia has currently filled 16 of 18 available IMG residencies as of July 1<sup>st</sup> 2006 (formally 6.) Ontario has 200 IMG residencies and Alberta has 42. At least 600 foreign-trained doctors who have passed provincial medical exams in Ontario were unable to find space in medical schools in 2003; hundreds more cannot access training in order to successfully write exams.<sup>7</sup> Clearly IMGs who live and work in Canada, want to raise their families here and contribute to the growth of the country are an untapped resource that can help address the current medical doctor shortage here in BC.

Canada's immigration favours highly educated professionals and the federal government is set to expand immigration in order to address the baby boom retirement challenges that started in earnest in 2005. This means that Canada will attract even more internationally trained medical doctors who will end-up passing Canadian national standards exams and then ultimately move to the United States or back home in order to work. The Association of International Medical Doctors of BC currently loses 10% of their IMGs who have completed the national standards exams in Canada each year, to the US other provinces or their home country.

An IMG (who must repeat residency) and a Canadian Medical Graduate (CMG) from UBC both cost the province around 150k for a two year family practice residency. An IMG however, does not cost the province for the rather expensive graduate medical training and can also be working in two years or less as apposed to six years for a CMG.

This is a major difference in cost and speed to licensure in favour of internationally trained medical doctors. Something else to note is that most IMGs come with experience and can speak the languages of our main immigration populations. Another significant fact is that every one of the IMGs who has graduated from the St. Paul's IMG residency program since its inception has taken up practice and stayed in British Columbia<sup>8</sup>.

Although the current practice is to recruit IMGs who do not need to repeat their post-graduate residency training (i.e. South Africa), as this is clearly a less expensive option; the numbers of doctors immigrating to British Columbia from these countries is insufficient to address the existing and coming shortages. In addition there has been recent concern about the higher than expected number of these doctors failing our national standards exams and also not being able to speak the main immigration languages.

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## The IMG Solution

"...still, the cost of producing a licensable physician from the IMG pool is much lower than the additional cost of 4 years of medical school incurred by Canadian graduates."

Rodney Andrew and  
Joanna Bates,  
'Licensing  
International Medical  
Graduates'. CMAJ  
2000

In Australia, New Zealand and in other provinces in Canada there have been many interventions that have expedited and even expanded the integration of qualified immigrant IMGs. AIMD BC has looked at what has worked elsewhere and has also taken into consideration the unique circumstances that exist in British Columbia and believe there are six primary initiatives that would dramatically increase the number qualified immigrant IMGs licensed and working throughout the province.

### Expansion of Clinical Assistant Positions

Chief among our recommendations would be the formal introduction of IMG 'Clinical Assistant' positions throughout British Columbia.

Currently in Alberta and to a much lesser extent in BC, there are international medical graduates working as paid doctors under a courtesy or temporary license. The role and scope these doctors play and the compensation they receive is similar to that of a resident doctor. In Alberta these IMGs are called 'Clinical Assistants' and in BC the term varies depending on which institution has created the position. Although this practice is well underway now in Calgary<sup>9</sup> and Edmonton<sup>10</sup> and has many benefits and far reaching implications, it has yet to be formally explored in BC. To date the focus of discussion on the West Coast has been the introduction and/or expansion of the 'Nurse Practitioner' as a way of alleviating the shortage of medical doctors, especially in under serviced areas.

The belief is that nurse practitioners could accomplish much of the work of a fully licensed medical doctor and do so at less cost to the province.

We believe this approach is problematic as there is already a critical shortage of nurses. The only way to create a nurse practitioner is to provide additional training to an existing nurse. This is like 'robbing Peter to pay Paul.' The fact is that only a fraction of the qualified IMGs in British Columbia are able to access work in the healthcare system. The introduction of IMG clinical assistants would be a net positive expansion of medical care and is clearly a superior approach for many reasons.

*"We find ourselves in a particularly desperate situation in respect to anesthetists. If we cannot recruit anesthetists, we cannot retain our surgeons."*

*Lynn Nash  
Mayor of Campbell River BC in a letter to BCMA Jan 2004  
Quoted in the Campbell River Mirror Newspaper Feb 20<sup>th</sup> 2004  
"Anesthetist Shortage Desperate, Mayors Say"*

In Calgary and Edmonton, where there are established clinical assistant programs, the IMGs that are successful in obtaining these positions have to date also been very successful in obtaining provincial residency training and certainly the experience of clinical assistants in the more established program in Calgary is that they dramatically improve their chances of obtaining CaRMs (Canadian Residency Matching Service) residencies as well. This is because by the time an IMG is able to successfully compete for a paid clinical assistant position and fulfill the duties of that job, he/she has the depth of knowledge about the 'culture of medicine' that is necessary to better compete for residency training.

Clinical assistants can also be added to the workforce in less than six months. A short (3-6 month) evaluation/orientation is all that is needed for qualified IMGs and they could be working again as doctors. Another added bonus of expanding the use of IMG clinical assistants is the fact that these positions could be located in those areas where the services of medical doctors are needed most. As is the case now in Alberta, those interested in a position would need to apply and possibly relocate. Those not interested in a position in Prince George, as an example, need not apply.

So, not only does the expansion of clinical assistant positions get qualified international medical doctors working again as doctors, thus alleviating the shortage; it also ensures that the supply of nurses stays intact; it dramatically improves the ability of those IMG clinical assistants to get residency training and thus full licensure and they can be working in areas of BC where they are most needed and can do so in less than six months time.

We recommend that the provincial government adequately fund the introduction of an IMG Clinical Assistant workforce. This could be done in addition to an expansion of residencies and the other recommendations as laid out in this document.

Many of the fully qualified IMGs who are not able to gain access to residency training but are excellent candidates for residency training and meet or exceed the standards for acceptance, could become clinical assistants very quickly. Once an IMG meets the standard for the St. Paul's IMG residency program and successfully completes a short orientation/evaluation period for clinical assistants, he/she could be back at work providing healthcare somewhere in the province.

"Health Council of Canada calls for summit to deal with doctor, nurse crisis. Canada must launch an urgent national drive to cure the alarming shortage of health care workers such as doctors, nurses and technicians, an advisory panel to government has concluded.

Mark Kennedy,  
National Post January  
27<sup>th</sup> 2005 Page 1  
"MD Shortage Critical"

### Introduction of Permanent Bridge Training

Immigrant IMGs who receive 'orientation to Canadian medicine training' prior to applying for residency, dramatically improve their chances of successfully obtaining and completing post graduate education. Canadian Medical Graduates (CMGs) who grow-up in Canada receive orientation to Canadian medicine through their graduate degree program at UBC. This 'orientation' is also part of the St. Paul's IMG residency training program and is available to a small number of the IMG applicants.

Clearly orientation is important and from a pure common-sense perspective makes a lot of sense. Internationally trained medical doctors fill out paperwork and interact with support staff/patients differently in their home country and may have also worked with different kinds of equipment. What they need is an opportunity to adapt to the way we do things here in Canada; which is not difficult, it just takes some time and they need to have access to this information and direction.

Currently there is no bridge training available to the general IMG population in BC and sadly as a result many CaRMs match residencies are left vacant rather than filled with IMGs who are missing this knowledge. The fact is that IMGs who lack orientation training have failed out of CaRMs residencies in sufficient numbers now that faculty, in many cases, are unwilling to take the risk of filling a residency with an IMG. They would rather keep a residency vacant, hoping that a CMG eventually takes it or that they are able to recruit a doctor from South Africa for example, and not have to spend any money on residency training.

British Columbia has the lowest acceptance rate of IMGs for CaRMs match residencies per capita in the country<sup>11</sup> and certainly when we take a look at the fact that BC has the highest number of IMGs in Canada after Quebec and Ontario, we see that this is clearly an area that needs to be addressed. It is quite rare for an IMG from BC to get a residency through CaRMs and when he/she does, it is usually a match in Alberta, Saskatchewan, Manitoba, New Brunswick or Newfoundland.

Making bridge training available to all IMGs who meet the existing St. Paul's residency standard would dramatically increase the number of IMGs who are better able to compete for CaRMs residencies and most important, CaRMs residencies within the province of British Columbia.

This bridge training does not need to be pilot, which has been done already. It needs to be available on a permanent basis and be managed by the UBC Faculty of Medicine. This 'patient centered' training could piggyback on the current orientation/evaluation component of the St. Paul's IMG residency program. Some of the cost of this training could be the borne by the IMG student as it is by medical students at UBC's faculty of Medicine. Tuition should be reasonable and student loans made available.

*"Nearly half of all doctors and nurses will have the option to retire in the next 10 years.*

*Wiley Norvell  
National Post Aug  
1 05 "Canada  
Needs More  
Doctors"*

### Introduction of Profession Specific English Language Training

Not all immigrant IMGs have English as a second language. Doctors from India for instance do there entire medical degree and post graduate studies in English. However many doctors from countries like China, Russia and those coming from most South American and European countries, need to gain access to profession specific English language training at Canadian Language Benchmark (CLB) 7 or higher in order to better integrate their skills and knowledge. This is currently unavailable in BC for internationally trained medical doctors.

*"A solution to ease, though probably not solve, the doctor shortage in B.C. may be as close at hand as your nearest cab stand or pizza parlour"*

*Don Cayo,  
Columnist,  
Vancouver Sun, Nov  
01 2004*

This training could be modeled after the training that is now available for internationally trained nurses and should not be part of the Bridge training as not all immigrant IMGs need to improve their English. (They all need orientation however.) This training could be made available through community colleges with the ability of IMGs to access student loans in order to cover the cost of tuition.

What this training does is further increase the number of IMGs who can successfully complete the mandatory national exams and/or compete for a CaRMs or St. Paul's residency positions. With greater numbers of people able to pass exams and/or compete for residency training we have a larger pool of qualified IMGs who are moving forward toward licensure. If we combine this with more residency training positions being made available, we have a recipe for more qualified IMGs working as licenced doctors.

### Expansion of IMG Residency Positions

An expansion of IMG residency positions is critical if British Columbia wants to retain IMGs and attract more in the future.

In November of 2005 the Liberal government announced a dramatic expansion of IMG residencies in British Columbia.

We went from 6 IMG family practice residencies to 12 and for the first time in BC's history specialist residencies were made available to IMGs. (6 pledged, 4 filled.) As a result BC now integrates 0.43 IMGs per 100,000 people, still the lowest of the top five net immigration provinces in the country but much better than it was. Ontario has 1.61, Alberta 1.32 and Manitoba 0.85 IMGs per 100,000 population.

The national average excluding BC is 1.26 IMGs per 100,000 people, which translates into 52 IMG residencies according to BC's population. Currently we would need to add an additional 38 residencies to get to the national average.

Clearly the Liberal government is on track; therefore, with its current expansion of CMG positions at UBC and with its recent increase in IMG residencies. We only ask that there be a plan for IMG expansion as there is now for CMG expansion and that the plan be put into practice as soon as possible. We understand that expansion takes time and that it is best done incrementally and methodically.

We also know that there are two components that affect the ability of the UBC Faculty of Medicine to provide post graduate residency training. One is funds and the second is having enough 'preceptors' or training staff in order to conduct and manage the training. Although both these components are closely linked and certainly more money over time can assist in the expansion of training staff; we think there is a way to expand quickly, using existing resources and have both IMGs and CMGs benefit as a result.

When the famous Barer/Stoddart "*Toward integrated medical resource policies for Canada*" report was given to the Federal, Provincial, Territorial Conference of Deputy Ministers of Health in 1991, the justification was in place to reduce medical doctor enrollment in universities across the country. This came at a time when other western industrialized countries were planning for upcoming shortages of doctors and nurses due to imminent baby boomer retirements. The result was that provincial governments cut funding to medical universities and less Canadian doctors were trained, year over year for the next decade. This of course is arguably the single biggest reason we have critical medical doctor shortages today, but there was another outcome that turned out to be a boon for medical universities.

Faculties of medicine across Canada had an excess of 'preceptors' or training staff. To their credit, Universities turned this challenge around and started training more 'visa student' doctors from countries like Saudi Arabia, Bahrain and the United Arab Emirates. Not only were universities able to keep the size of their training staff and some were even able to expand, but the fees that they could charge for training doctors from other countries were higher than what they were receiving

*"Doctors trained outside Canada provide the same standard of care for heart attack patients as homegrown physicians, a finding that should reassure patients as well as policy makers seeking to ease the country's doctor shortage, Ontario researchers say."*

Sheryl Ubelacker  
Canadian Press article  
March 01 2005  
"Study Reassuring on Foreign Doctors"



from provincial Ministries of Health. As a result, the University of British Columbia to this day, trains a large number of 'visa student' doctors. These are doctors who receive medical training in Canada, paid for by their home country and then must, upon completion, return to their country of origin.

The outcome of this practice is that we actually have many more 'preceptors' than the public or government may realize. These training staff are not factored into the resources for domestic training however, but are kept as a completely separate resource pool and are very rarely talked about.

"Most visa students whose governments send them to Canada to train do not come from developing countries, but from the Persian Gulf. In Ontario, four-fifths of the overseas medical residents come from Saudi Arabia, Kuwait, the United Arab Emirates, Bahrain, Oman and Libya"

*Marina Jimenez,  
Globe and Mail, Nov  
1 2005, Page 1 "For  
Sale: Prized  
positions at  
Canada's medical  
schools"*

What we suggest is needed at this time is a re-allocation of these important 'preceptor' resources so that more CMG and IMGs are trained. We are not suggesting that UBC's practice of training other countries doctors, mostly specialists, be stopped completely; only that the number of doctors that the faculty of Medicine plans to train in the years ahead be reduced and that some of those training staff be re-allocated to domestic use.

The fact is that there are many medical students graduating from UBC who are not able to get specialist training because of the lack of specialist residencies allocated for domestic purposes. We suggest that when this re-allocation occurs, that the specialist preceptors that are freed-up be used to train more UBC graduates and the family practice preceptors that they would otherwise have used, now be allocated to immigrant IMGs.

This is a win/win situation for everyone. The CMGs get more specialist residencies, IMGs get more family practice residencies and the province gets a net increase in fully licensed medical doctors. All this accomplished with existing training staff already in place at the Faculty of Medicine at UBC.

Now we understand that this will mean a drop in the amount of revenue that UBC receives in tuition fees but we are confident that this orientation toward BC's domestic needs fits well within the mandate of the University and the priorities of the current provincial government. There may even be an opportunity to recover most if not all the revenue that UBC loses by replacing lucrative student visa residencies with CMG and IMG residencies. The solution would be to increase the cost of the remaining student visa residencies by a slight amount. Countries with less means could be kept at current rates.

Increasing the number of provincially funded IMG residencies is an important component of an overall strategy of integrating more IMGs and ensuring that there is equity in the process of becoming licenced.

If this piece is missing then we will continue to lose qualified IMGs to other provinces and countries only this time they will now leave with profession specific English Language training and/or clinical assistant skills. Having a plan in place over the next several years to increase the number of IMG residencies is an important part of a fully integrated retention/attraction strategy.

### Expansion of CPSBC's 'Acceptable' List

Most IMGs are forced to repeat their post-graduate residency training because the CPSBC does not have sufficient information about their medical education. Increasing this understanding would lead to more IMGs practicing medicine without having to repeat their entire post graduate residency training.

When the provincial government of British Columbia gave the College of Physicians and Surgeons of BC (CPSBC) its charter to operate as a self-regulating body to license medical doctors and protect the public; British Columbia's primary immigration countries were England, Scotland, Ireland and Wales.

The first presidents and registrars at the CPSBC received their medical training from universities in the British Isles. It is not unusual then to see why the CPSBC was able to accept the training of doctors from Great Britain...as a matter of fact all the faculties of medicine across the country outside Quebec were modeled after the British system. This same training was set-up in Australia, New Zealand and South Africa and to this day, doctors trained in these countries or in the British Isles are licensed right away in BC and can retain their license as long as they pass the required national standards exams within three years of licensure.

The key point here is that immigration has changed substantially in the past several decades and now our main immigration countries are China, India, Philippines, Eastern Europe and Russia, Iran and various other countries in South America and the Middle East. Very little has changed at the CPSBC however, despite the massive changes in immigration. This may be due to an interpretation of its mandate but the result is that the majority of immigrant doctors to the province of British Columbia are required to repeat their post graduate residency training and most of them are effectively excluded from licensure as a result.

The real challenge lies with the very small size of the CPSBC list of universities and/or countries whose education systems have been evaluated, understood and deemed acceptable. We believe it is now in the public's interest to have the top medical universities of our main immigration countries for the past several decades, evaluated and

*"Regulatory bodies should work with their counterparts in other provinces to develop or expand their database of educational institutions in other countries, establish recognition tools to more effectively evaluate programs and courses or increase their use of external credential assessment organizations to authenticate or evaluate credentials"*

*Solutions for Access Report, March 2006 Executive Summary Recommendations 4.3.2 B) page ix*

understood. If this was done by an independent body or with independent verification of the facts, we believe that the current list could be expanded and/or that specific shortcomings could be identified and addressed with additional short term and inexpensive training courses or other appropriate interventions.

**'We've got people saying "Let's bring in more doctors", but we've got these people already in Canada who may very well be able to do the job'**

*Dr. Dale Dauphinee  
Executive Director of  
the Medical Council  
of Canada as quoted  
in the Globe and  
Mail February 18,  
2004 about using  
IMGs that already  
live in Canada.*

As indicated in the landmark March 2006 Law Foundation report on access to licensure in regulated professions for internationally trained professionals in BC, called *Solutions for Access*: "Discrimination is contrary to the public interest. As part of their duty to protect the public interest regulators have a duty to ensure that standards, assessment tools, and procedures are consistent with the human rights norms of non-discrimination and equality... The question is not whether stringent standards of competence are necessary, but whether particular standards, assessment tools and/or procedures that have the effect of excluding people from licensure, or of placing burdens on them because of their place or origin, are necessary."<sup>12</sup>

The report goes further, "All professions have an interest in ensuring that their licensing requirements are consistent with applicable provisions of human rights and the Charter... The principle of the protection of the public and the maintenance of professional standards are in fact complementary to the principle of access to licensure for all qualified and competent persons. Both principles serve the public interest. Access to licensure does not imply the lowering of standards or the undermining the safety of the public. It increases the diversity in a profession, and thereby provides the public with better service in this multicultural society."<sup>13</sup>

The fact is that the CPSBC needs to do more in order to be seen as fair and to fulfill its mandate of protecting the public. Their charter is issued by the government of the province of British Columbia and we recommend that the government work with the CPSBC to conduct research in order to better understand key immigrant medical universities. This understanding will lead to better and more refined interventions and possibly to a larger list of acceptable universities/countries.

There are many examples of IMGs who are currently working as successful and fully licensed medical doctors in BC. Could we have integrated them more efficiently rather than forcing them to repeat their entire residency training? Are there medical training systems that are close enough to ours that graduates from those countries or universities need only take a few additional courses or evaluation/training before being licenced? The fact is that many countries like India, Philippines or Iran base their medical education systems on the British or US model.

At the very least understanding what the deficiencies are and making this whole process more transparent and accessible is in the public interest. The result in all likelihood would be an increase in the number of IMGs whose education is accepted and where licensure could come without repeating a full two years of family or a full five years of specialty residency training.

As an aside, it may also be 'in the public interest' to have direct government oversight of self-regulating professional associations and we believe this is something that the provincial government has the power to exercise, right now, if it sees fit. In Ontario the provincial government is clarifying and expanding its powers of oversight with Bill 124, the Fair Access to the Regulated Professions Act or FARPA, tabled in June 2006. Oversight already exists in Quebec and in many US states and members of the Commonwealth.

The fact that government oversight is occurring in Ontario and already exists elsewhere is a good indication that it was needed, serves the public and is a way of ensuring that self-regulating bodies are seen to be administering their mandate in a fair, equitable and transparent fashion. It seems that without this kind of oversight, self-regulating professional associations run the risk of becoming overly protective, secretive, beyond reproach and can deviate from their mandate without any way to correct their actions.

The BC government may want to take a look at Ontario's or Quebec's lead on regulator oversight, especially now that we are moving into an era when chronic shortages of professionals and labour will be the norm, not the exception. At the very least, partnering with the CPSBC to expand the number of universities/countries on the 'acceptable' list will result in fewer IMGs having to repeat residency training and/or more IMGs having to complete only a small amount of additional training before becoming licenced.

### **Help AIMDBC Support IMGs**

Internationally trained medical doctors when they arrive in British Columbia benefit in so many ways by receiving clear, precise and timely direction about the challenges that lay ahead, best practices and the various tools and supports that are available.

If this is done in a supportive atmosphere, where they can meet fellow professionals, form lasting friendships, join study groups and feel part of a larger community then the results are quite profound. The most obvious outcome is that they spend less time trying to find their way around the maze of institutions, policies and deadlines that make up the various paths to licensure for IMGs. This means that the path to

**"Our greatest opportunity for success is to enter into constructive dialogue with stakeholders and to be a solutions provider, not a complainer. In this way we forge working relationships, build community and become partners in resolving issues. This is really the only way that internationally trained medical doctors can effect lasting and positive change. It is also the only way in which true professionals conduct themselves."**

*Dr. Alfredo Tura,  
President AIMD BC,  
Inaugural address at  
the first meeting of the  
Canadian Association  
of International Medical  
Doctors, Toronto ON  
Nov 5 2005*

licensure is quicker and because there are fewer costly errors along the way, limited financial resources are not wasted.

IMGs that are supported in this way are also better candidates for orientation training and end-up taking it at the right time in the licensure process. Other outcomes such as reduced incidences of depression, less stress, greater focus on goals, increased exam scores and a more positive attitude are also important benefits as these new Canadians try to find their way back into 'community' and work as doctors again.

To date AIMD BC has been working primarily on building relationships with stakeholders and the media in order work toward greater access to licensure. In the past year we have also spent a great deal of time, with the assistance of the BC Internationally Trained Professionals Network, helping our members by providing much needed support and direction. The results have been very rewarding and we can see ourselves providing IMGs ongoing familiarization, counseling and exam preparation.

We believe we are well situated to ensure that IMGs receive timely and pertinent direction and support. Our vision is to offer new IMGs all the important information and direction they need right away, through a 'Welcome Course.' This would also connect them with other new and experienced IMGs so they can form relevant support networks and receive needed on-going counseling/coaching.

AIMD BC is a non-profit organization and our board/executive as well as our members are all volunteers. There is much we believe we can do to assist IMGs in BC so they become productive members of our community as quickly as possible. Much of the work we would like to provide however needs to be coordinated and managed.

This is best accomplished with a paid staff member as occurs in Alberta with the Alberta IMG association and in Ontario with the Association of International Physicians and Surgeons of Ontario. We encourage the Ministry of Health to partner with us to deliver these important first interventions and to assist us with ongoing support and assistance so we can better serve IMGs in British Columbia.

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## **In Conclusion**

Expanding BC's capacity to address our current medical doctor shortage is expensive but necessary. Unfortunately, even with existing university expansion plans, aggressive recruitment from other provinces and countries and the recent expansion of IMG residencies at St. Paul's hospital, BC is and will continue to be short as many as 150 doctors per year.<sup>14</sup>

This shortage will continue as we compete with other countries like the United States not only for qualified international doctors but also for those who are trained in Canada.

We believe the timing is perfect for immigrant IMGs to play an expanded role in helping the provincial government to meet its physician supply goals. Combining the expanded integration of qualified IMGs that are already here with the attraction of others because of our progressive policies, would both go a long way toward meeting our current and future medical doctor requirements.

IMGs; even with additional support and direction from AIMD BC, bridge training and possibly profession specific English language training, are a very cost effective solution to the current medical doctor shortage.

By assisting the CPSBC to increase the number of acceptable universities; increasing the number of available IMG residencies and expanding the number of IMG 'Clinical Assistants' able to work in the healthcare system; the Liberal government would be maximizing the ability of immigrant doctors to make a real and lasting difference in British Columbia.

We look forward to working with you to make this happen.

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<sup>1</sup> "Physician Supply and Distribution in BC -- Fact Sheet" British Columbia Medical Association. [http://www.bcma.org/public/negotiations\\_information/physiciansfactsheet.htm](http://www.bcma.org/public/negotiations_information/physiciansfactsheet.htm)

<sup>2</sup> UBC Faculty of Medicine "More Doctors for BC" [http://www.med.ubc.ca/about\\_us.htm](http://www.med.ubc.ca/about_us.htm)

<sup>3</sup> Doctor Shortage to Get Much Worse, Krisendra Bisetty, Vancouver Sun Friday October 29 2004

<sup>4</sup> Ibid

<sup>5</sup> Federico Carrillo, Executive Director AIPSO. [www.aipso.ca](http://www.aipso.ca)

<sup>6</sup> Alberta International Medical Graduates Association. [www.aimga.ca](http://www.aimga.ca)

<sup>7</sup> Canada Urged to Integrate Foreign Trained MD's: Globe and Mail, Wednesday February 18 2004.

<sup>8</sup> Dr. Rod Andrew, Director IMG Residency Program, St. Paul's Hospital, 2005

<sup>9</sup> <http://www.calgaryhealthregion.ca/ccap>

<sup>10</sup> <http://www.capitalhealth.ca/Careers/InternationalHealthCareProfessionals/default.htm>

<sup>11</sup> [http://www.carms.ca/jsp/main.jsp?path=../content/statistics/statistics/st\\_2006](http://www.carms.ca/jsp/main.jsp?path=../content/statistics/statistics/st_2006)

<sup>12</sup> Solutions For Access; Funded by Law Foundation/Ministry of Economic Development, March 2006, Executive Summary, page iv

<sup>13</sup> Ibid, page v

<sup>14</sup> BCMA Fact Sheet (see 1)

## How do IMGs compare with Canadian medical school graduates in a family practice residency program?

Rodney F. Andrew MBBS CCFP FCFP

### ABSTRACT

**OBJECTIVE** To compare international medical graduates (IMGs) with Canadian medical school graduates in a family practice residency program.

**DESIGN** Analysis of the results of the in-training evaluation reports (ITERS) and the Certification in Family Medicine (CCFP) examination results for 2 cohorts of IMGs and Canadian-trained graduates between the years 2006 and 2008.

**SETTING** St Paul's Hospital (SPH) in Vancouver, BC, a training site of the University of British Columbia (UBC) Family Practice Residency Program.

**PARTICIPANTS** In-training evaluation reports were examined for 12 first-year and 9 second-year Canadian-trained residents at the SPH site, and 12 first-year and 12 second-year IMG residents at the IMG site at SPH; CCFP examination results were reviewed for all UBC family practice residents who took the May 2008 examination and disclosed their results.

**MAIN OUTCOME MEASURES** Pass or fail rates on the CCFP examination; proportions of evaluations in each group of residents given each of the following designations: exceeds expectations, meets expectations, or needs improvement. The May 2008 CCFP examination results were reviewed.

**RESULTS** Compared with the second-year IMGs, the second-year SPH Canadian-trained residents had a greater proportion of exceeds expectations designations than the IMGs. For the first-year residents, both the SPH Canadian graduates and IMGs had similar results in all 3 categories. Combining the results of the 2 cohorts, the Canadian-trained residents had 310 (99%) ITERS that were designated as either exceeds expectations or meets expectations, and only 3 (1%) ITERS were in the needs improvement category. The IMG results were 362 (97.6%) ITERS in the exceeds expectations or meets expectations categories; 9 (2%) were in the needs improvement category. Statistically these are not significant differences. Seven of the 12 (58%) IMG candidates passed the CCFP examination compared with 59 of 62 (95%) of the UBC family practice residents.

**CONCLUSION** The IMG residents compared favourably with their Canadian-trained colleagues when comparing ITERS but not in passing the CCFP examination. Further research is needed to elucidate these results.

### EDITOR'S KEY POINTS

- There is evidence in the literature that international medical graduates (IMGs) do not do as well as Canadian-trained residents in their residencies or on their final examinations; and there is a perception among program directors that IMGs do not perform as well.
- Most IMGs in Canada are simply integrated into existing residency programs, and their particular needs as IMGs are not examined in any depth.
- A specific training site for IMGs was created in order to address the challenges associated with the different backgrounds and training of IMGs.
- This analysis shows that IMGs continue to have difficulties with passing the Certification in Family Medicine examination even when they have been carefully selected and have obtained residency training in a dedicated site; however, results of in-training evaluation reports indicate IMGs are seen by their teachers to be competent physicians.

This article has been peer reviewed.  
*Can Fam Physician* 2010;56:e318-22

## Comment les DIM se comparent-ils aux diplômés des facultés de médecine canadiennes dans un programme de résidence en médecine familiale?

Rodney F. Andrew MBBS CCFP FCFP

### RÉSUMÉ

**OBJECTIF** Comparer les diplômés internationaux en médecine (DIM) inscrits dans un programme de résidence en médecine familiale à leurs collègues diplômés des facultés de médecine canadiennes.

**TYPE D'ÉTUDE** Analyse des résultats de l'évaluation en cours de formation (REEF) et des résultats à l'examen de certification en médecine familiale (CMFC) de 2 cohortes de DIM et de diplômés formés au Canada entre 2006 et 2008.

**CONTEXTE** St Paul's Hospital (SPH) à Vancouver, C.-B., un centre de formation du programme de résidence en médecine familiale de l'University of British Columbia (UBC).

**PARTICIPANTS** On a relevé les rapports d'évaluation effectués en cours de formation au SPH pour des résidents formés au Canada (12 de première année et 9 de deuxième) et ceux des DIM (12 de première année et 12 de deuxième); les résultats à l'examen du CMFC ont été vérifiés pour tous les résidents en médecine familiale de l'UBC qui ont fait l'examen de mai 2008 et en ont révélé les résultats.

**PRINCIPAUX PARAMÈTRES À L'ÉTUDE** Taux de réussite ou d'échec à l'examen du CMFC; pour chaque groupe de résidents, proportion de ceux ayant obtenu une des cotes suivantes: dépasse les attentes; répond aux attentes; ou nécessite amélioration. Les résultats de l'examen du CMFC de mai 2008 ont été examinés.

**RÉSULTATS** Par rapport aux DIM de deuxième année au SPH, ceux formés au Canada ont obtenu une plus forte proportion de cotes «dépasse les attentes». Pour ceux de première année, les 2 groupes avaient des résultats semblables pour les 3 catégories de cotes. Si on combine les résultats des 2 cohortes, les résidents formés au Canada ont obtenu 310 REEF (99%) indiquant «dépasse» ou «rencontre les attentes» et seulement 3 REEF (1%) indiquant un besoin d'amélioration. Les DIM ont eu 362 REEF (97,6%) indiquant «dépasse» ou «rencontre les attentes» et 9 (2%) indiquant un besoin d'amélioration. Ces différences ne sont pas statistiquement significatives. Sur 12 candidats DIM à l'examen du CMFC, 7 (58%) ont réussi, comparativement à 59 des 62 résidents en médecine familiale de l'UBC (95%).

**CONCLUSION** Les REEF des DIM se comparaient avantageusement à ceux de leurs collègues formés au Canada, mais non leurs résultats à l'examen du CMFC. Il faudra d'autres études pour éclaircir cette disparité.

### POINTS DE REPÈRE DU RÉDACTEUR

- Les données de la littérature indiquent que les diplômés internationaux en médecine (DIM) ne réussissent pas aussi bien que les résidents formés au Canada dans leur résidence et leurs examens finaux, une opinion que partagent les directeurs de ces programmes.
- Au Canada, la plupart des DIM sont simplement intégrés dans des programmes de résidence existants, sans que leurs besoins particuliers soient véritablement examinés.
- Un site de formation spécifique aux DIM a été créé afin de répondre aux défis liés aux origines et formations particulières de ces résidents.
- Notre analyse montre que les DIM continuent d'éprouver des difficultés pour obtenir leur certification en médecine familiale même s'ils ont été soigneusement sélectionnés et s'ils ont fait leur résidence dans un site créé pour eux; toutefois, les professeurs qui les évaluent en cours de formation considèrent qu'il sont des médecins compétents.

Cet article a fait l'objet d'une révision par des pairs.  
*Can Fam Physician* 2010;56:e318-22



## Research | How do IMGs compare with Canadian medical school graduates?

For many years international medical graduates (IMGs) have made up approximately 25% of the physician work force in Canada. In British Columbia (BC), 22% of postgraduate physicians have been trained abroad.<sup>1-3</sup>

There is evidence in the literature that IMGs do not do as well as Canadian-trained residents in their residencies or on their final examinations; and there is a perception among program directors that IMGs do not perform as well.<sup>4-7</sup>

In 2005, the BC provincial government increased its funding for residency training for IMGs from 6 to 18 positions per year, with 12 positions in the specialty of family medicine and 6 in other specialties.<sup>8</sup> A provincially appointed IMG task force recommended that IMG family practice residents be trained at a newly created site at St Paul's Hospital (SPH) in Vancouver, BC, with the first cohort starting in July 2006. St Paul's Hospital has had an existing site for family practice residency training since 1994, and the attending clinicians have had extensive experience of family practice teaching as well as assessing IMGs since 1992.<sup>9</sup> The existing SPH family practice residency site continued to recruit residents through the Canadian Residency Matching Service and matched only medical students from Canadian (or US) medical schools in the first iteration. The IMG residents were ranked through Canadian Residency Matching Service only if they had completed the BC IMG clinical assessment program.

The 2 residency programs (ie, SPH site and IMG site) would exist side by side and share many of the same teaching resources and some of the same rotations. Most IMGs in Canada are simply integrated into existing residency programs and their particular needs as IMGs are not examined in any depth.

The faculty members that were appointed to oversee the new IMG site had experience in teaching Canadian-trained graduates as well as long-standing exposure to and a specific interest in teaching IMGs.<sup>10</sup> The anticipation was that by creating a specific training site for IMGs, the challenges associated with the various backgrounds and training of IMGs could be addressed—even though the 2 programs would be integrated educationally to a certain extent. In particular, the residents at the IMG site were given more extensive exposure to ethical, cultural, and behavioural medicine issues than their Canadian counterparts were. More time was spent analyzing doctor-patient relationships and communication issues.

To our knowledge (University of British Columbia [UBC] Family Practice Residency), this is the first time in North America that a training site has been created specifically for IMGs, with the added advantage of working alongside Canadian-trained residents. We believed that this IMG site provided a unique opportunity to monitor the educational progress of the IMGs in this setting by comparing them with their Canadian-trained colleagues.

### METHODS

Every family practice resident in BC is continuously assessed by means of a Web-based evaluation, which is based on the 4 principles of family medicine. Preceptors complete the evaluation at the end of every rotation; a rotation can last for as little as 2 weeks for electives to as long as 8 weeks for most of the core rotations. A review was conducted of all the in-training evaluation reports (ITERS) for both the IMGs and the Canadian-trained residents, as well as the results of the Certification in Family Medicine (CCFP) examination, which is taken by our residents in May of the second year of the 2-year residency. Ethics approval was obtained from the UBC Providence Health Care Research Ethics Board.

The residents from the IMG and SPH sites were asked for their written consent for their ITERS to be collated and reviewed by the author with the individual evaluations being blinded before review. Consent was requested by the program coordinators, and any identifying details in the evaluations were removed.

Each ITER was graded initially as either pass or fail. Additionally, each evaluation was given one of the following designations: exceeds expectations, meets expectations, or needs improvement. The ITERS also contained the evaluators' written comments but these were not seen by the author.

The CCFP examination results were obtained from the central office of the UBC Family Practice Residency Program with the residents' permission.

### RESULTS

All of the residents at the 2 sites gave written permission to have their ITERS reviewed. Residents who had gaps in their training for more than 3 months (all were on maternity leave) were excluded from analysis. Three second-year residents and 1 first-year resident from the SPH site (SPH Canadian graduates) were excluded, and no residents from the IMG site were excluded. Participants included 12 first-year and 9 second-year residents from the SPH site (SPH Canadian graduates), and 12 first-year and 12 second-year IMG residents from the IMG site. The ITERS from the cohorts between 2006 and 2008 (second-year residents) and between 2007 and 2008 (first-year residents) were analyzed to see if the SPH Canadian graduates and the IMGs showed significant differences. Results are presented in Tables 1 and 2.

In the 2 first-year resident groups (ie, SPH Canadian graduates and IMGs), SPH Canadian graduates and IMGs have very similar ratios in the categories exceeds expectations, meets expectations, and needs improvement. In particular, Fisher exact tests (2-tailed) indicated that the

**Table 1. Results of ITERs of first- and second-year SPH Canadian-trained residents and IMGs in the UBC Family Practice Residency Program, from the cohorts between 2007 and 2008 (first-year residents) and between 2006 and 2008 (second-year residents)**

ITER CATEGORIES	NO. OF EVALUATIONS RECEIVED BY FIRST-YEAR RESIDENTS		NO. OF EVALUATIONS RECEIVED BY SECOND-YEAR RESIDENTS	
	SPH CANADIAN GRADUATES N=125,* N (%)	IMGs N=127,* N (%)	SPH CANADIAN GRADUATES N=188,* N (%)	IMGs N=244,* N (%)
Exceeds expectations	53 (42)	49 (39)	106 (56)	72 (30)
Meets expectations	69 (55)	76 (60)	82 (44)	165 (67)
Needs improvement	3 (2)	2 (2)	0 (0)	7 (3)

ITER—in-training evaluation report, IMG—international medical graduate, SPH—St Paul's Hospital.  
\*N refers to the total number of evaluations received by that group; each resident received an evaluation at the end of the rotation.

**Table 2. Overall results of the ITERs: Comparison of SPH Canadian graduates with IMGs.**

ITER CATEGORIES	NO. OF EVALUATIONS RECEIVED BY SPH CANADIAN GRADUATES N=313,* N (%)	NO. OF EVALUATIONS RECEIVED BY IMGs N=371,* N (%)
Exceeds expectations and meets expectations	310 (99)	362 (98)
Needs improvement	3 (1)	9 (2)

ITER—in-training evaluation report, IMG—international medical graduate, SPH—St Paul's Hospital.  
\*N refers to the total number of evaluations received by that group; each resident received an evaluation at the end of the rotation.

rate of evaluations in the needs improvement category versus the other 2 categories was comparable in the 2 groups,  $P=.68$ . It remains to be seen if this is mirrored in the second year of their residencies.

A different pattern occurred between the second-year SPH Canadian graduates and IMGs, with a wider gap between the 2 groups: SPH Canadian graduate residents consistently had a larger ratio of the exceeds expectations designation. Remarkably, no second-year Canadian-trained resident had a single needs improvement designation in the whole 2 years. The rate of the needs improvement designation was significantly higher for the IMGs,  $P=.02$  (2-tailed Fisher exact test).

However, when looking at the total number of needs improvement designations of the first- and second-year residents' rotations, there is little difference between the 2 groups, with very few needs improvement designations (9 for IMGs and 3 for SPH Canadian graduates) being seen as weak in a rotation yet still meriting a

pass. This difference was within the variation of results expected by chance,  $P=.21$  (2-tailed Fisher exact test). Out of 684 evaluations given, only 1 was rated as a fail. Of the SPH Canadian graduate residents, 3 (1%) evaluations were given a needs improvement rating compared with 9 (2%) evaluations of the IMGs.

There were, however, considerable differences between IMGs and the Canadian graduates across all of the UBC family practice sites in the CCFP examination results. Of the 12 IMGs who completed the examination in May 2008, 7 passed. The percentage of passes in this group (58%) is in keeping with the historical national pass rate for IMGs (Braïlovski C, oral communication, September 2008). In comparison, of the 62 Canadian-trained UBC Family Practice residents who revealed their results to the program, 59 passed—for a pass rate of 95%.

## DISCUSSION

There could be any number of explanations for these results, especially drawing comparisons between a well established family practice residency site (ie, SPH site) and a fledgling site (ie, IMG site) unlike any other in the country. The average age of the IMG residents was 40 years and that of the SPH residents was younger than 30 years. Most of the IMGs also had family responsibilities, with children ranging from newborns to university students. English was a second language to all 24 IMGs.<sup>10</sup> There are also some considerable differences between the 2 sites, especially in the second year of residency, with the IMG site having a more traditional rotation-based schedule compared with the SPH site's horizontal schedule.

It could be argued that the ITERs are not a good method of assessing readiness for practice. Although ITERs are extensively used in Canadian residency programs as well as in other parts of the world, there continues to be criticism in the literature as to their reliability in forecasting the competence of medical residents<sup>11,12</sup>; however, ITERs continue to be widely used and are constantly reviewed to improve their ability to predict performance.<sup>13,14</sup> Program directors express the need for ongoing assessments during residency training in addition to a final examination mandated by the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada.<sup>15</sup> If, however, the written comments of the evaluators had been assessed, it is possible that more differences might have been found rather than only relying on the limited categories reviewed.

The outcome for IMGs in the CCFP examination is disappointing, especially considering that very knowledgeable faculty members, many of whom have served as examiners or on the examination committee at the

## Research | How do IMGs compare with Canadian medical school graduates?

College of Family Physicians of Canada, worked very diligently with the IMG candidates to thoroughly familiarize them with the examination requirements. Specifically, each resident had the opportunity to learn about how simulated office orals are constructed and marked, and he or she was given at least 3 practice simulated office orals before sitting the CCFP examination.

This result is at odds with the perception that the IMG residents performed very adequately during their residency training and compared favourably with their Canadian-trained colleagues.

### Limitations

The numbers in this analysis are relatively small and time alone will tell if the results in future will be different. Analyses at other locations where larger numbers are incorporated will be needed before definitive conclusions can be drawn.

This analysis does appear to support the conclusion that even when IMGs train in a dedicated site with highly experienced teachers, they still struggle to match their Canadian counterparts in passing their final examinations. One explanation is that, in some way, IMGs are disadvantaged by the format of the CCFP examination. It could be cultural; it could be the subtle nuances of the English language; it could be the more direct approach that some IMGs have in eliciting medical information; or it could even be that some examiners lack experience with IMGs.<sup>16,17</sup>

The contrast between the results of the examination and the results of the ITERs might lead to the opinion that perhaps more weight should be given to the ITERs in determining a resident's fitness for practice rather than relying solely on a terminal examination.

### Conclusion

This analysis reveals that IMGs continue to have difficulties with passing the CCFP examination even when they have been carefully selected and have obtained residency training in a dedicated site. The results of the ITERs, however, seem to indicate that IMGs are seen by their teachers to be competent physicians who are ready for practice after 2 years of family practice residency training.

Dr Andrew is Director of the International Medical Graduate Site in the Family Practice Residency Program at the University of British Columbia in Vancouver.

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### Competing interests

None declared

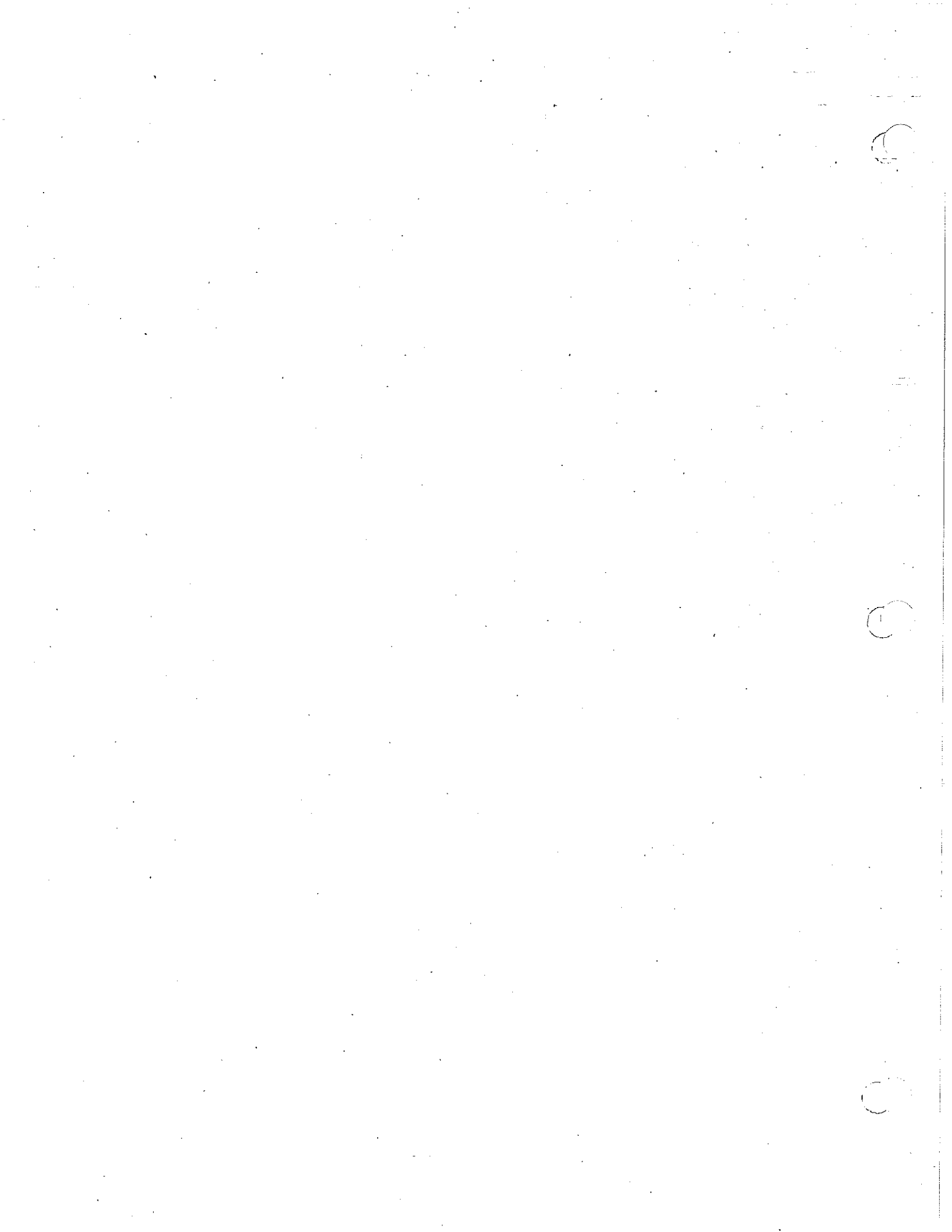
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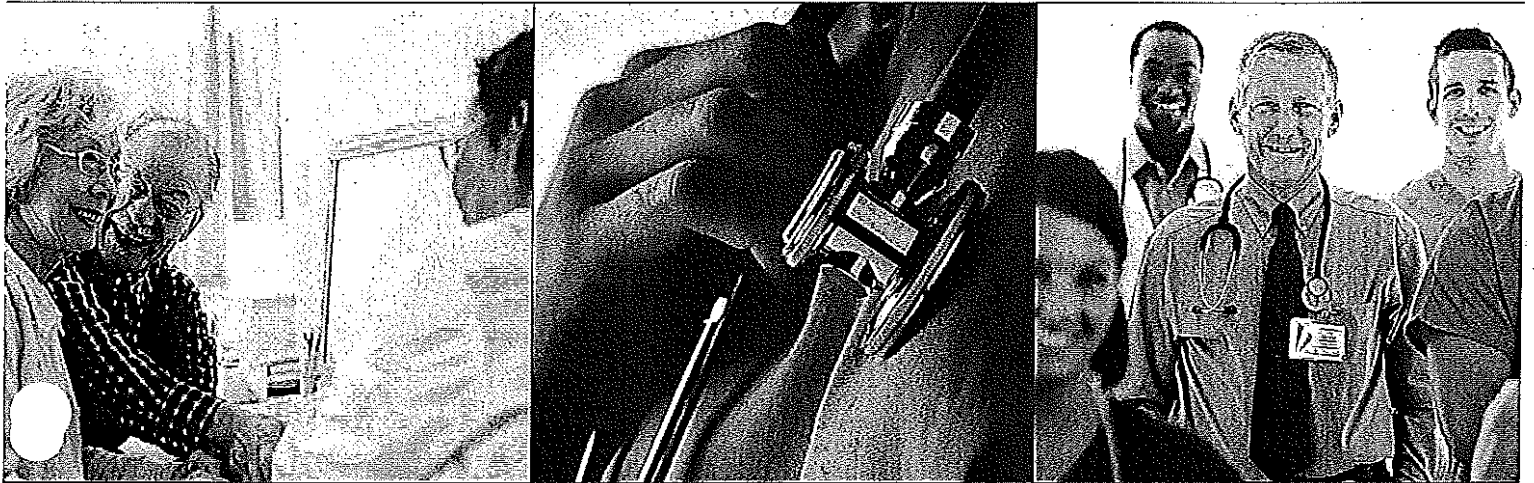
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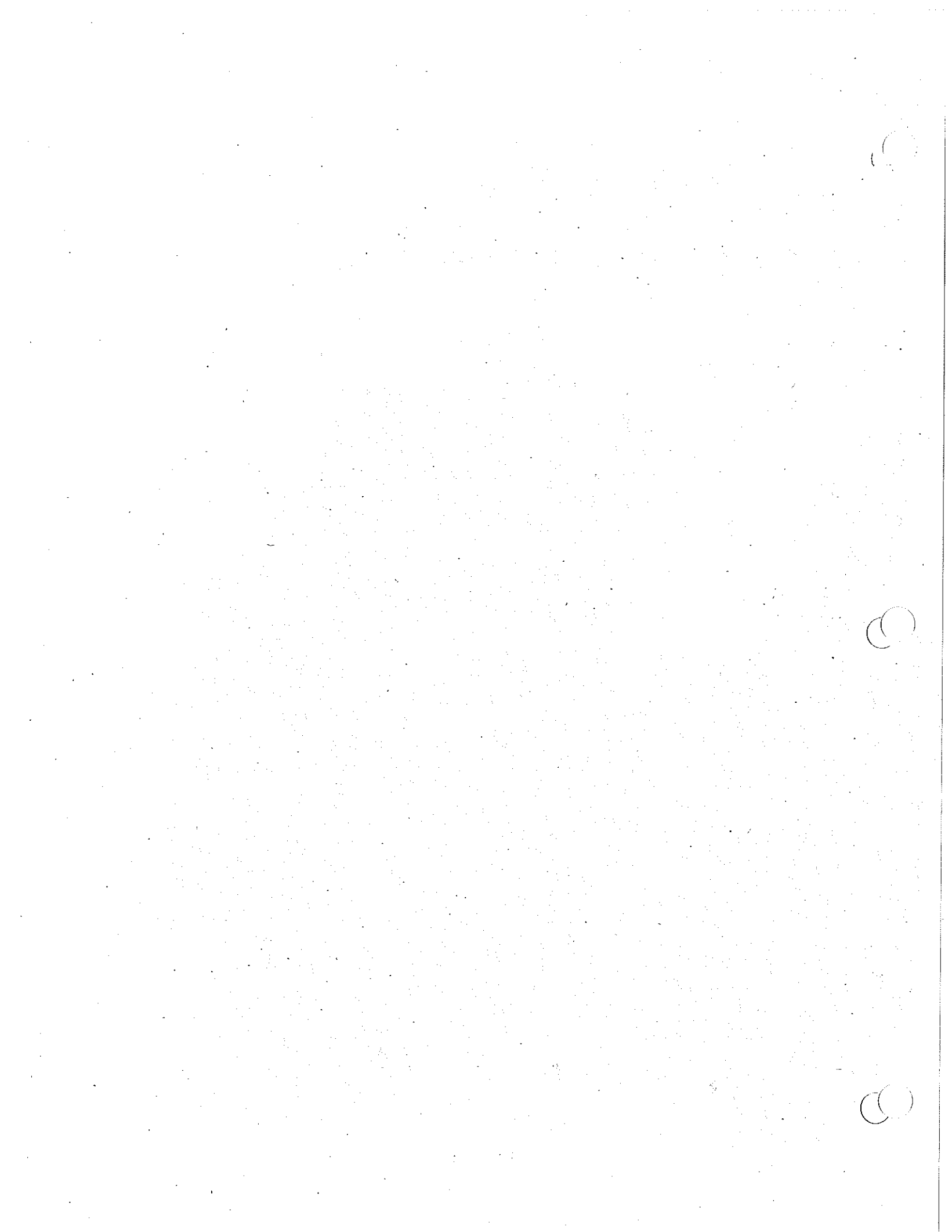
# Doctors Today and Tomorrow

Planning British Columbia's Physician Workforce



A Policy Paper by BC's Physicians | July 2011





BRITISH  
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# Doctors Today and Tomorrow

## Planning British Columbia's Physician Workforce

A Policy Paper by BC's Physicians

July 2011

The BCMA Council on Health Economics and Policy (CHEP) reviews and formulates policy through the use of project-oriented groups of practising physicians and professional staff.

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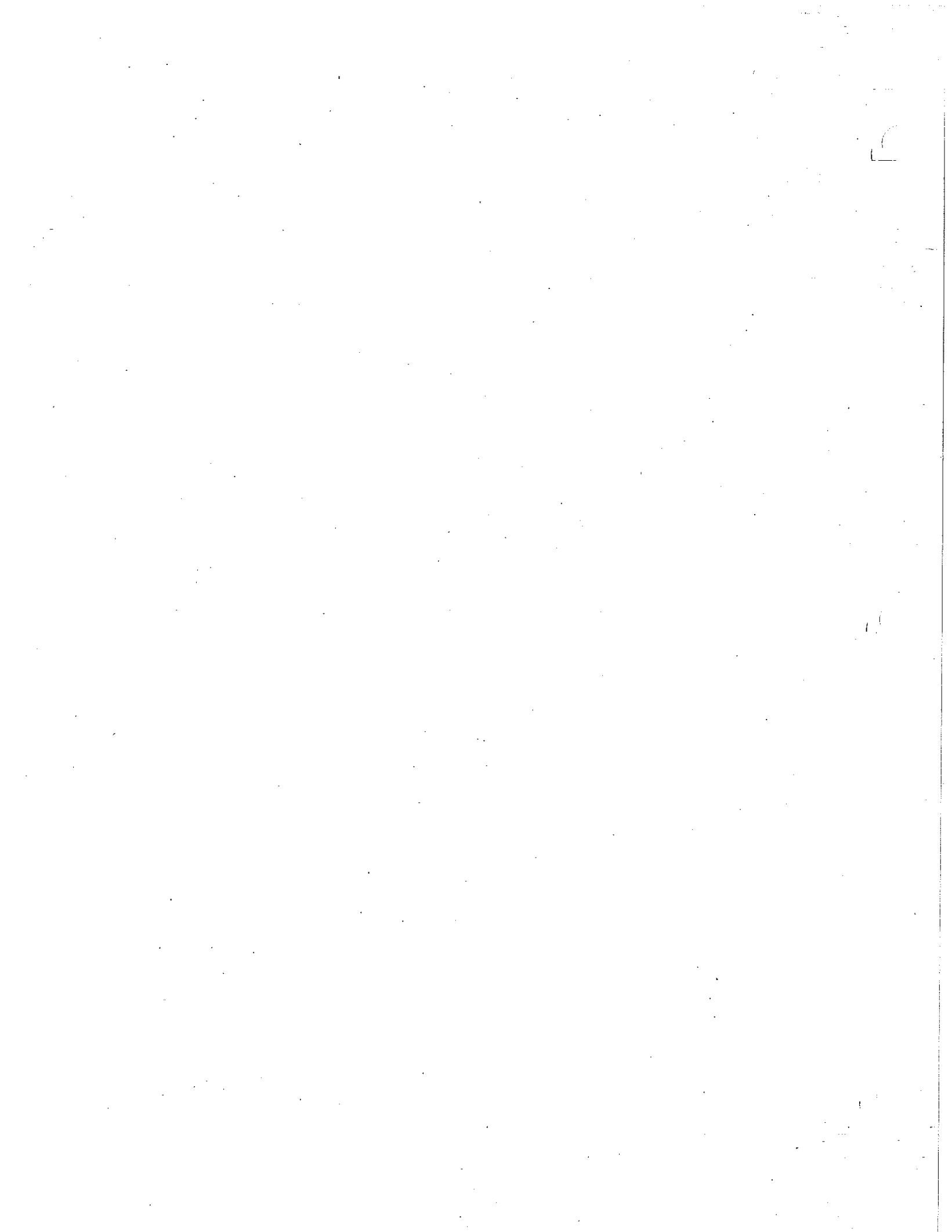
The BCMA gratefully acknowledges the contribution of BCMA Intern  
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# Executive Summary

Yogi Berra said it best: "It's tough to make predictions, especially about the future." In the realm of physician workforce planning, the proof of his statement lies in the cycles of shortages and surpluses of physicians in British Columbia over the years. No one seems able to get the right number, and perhaps—absent a crystal ball—no one ever will. It may be that the challenge of forecasting physician supply—an endeavor that requires consideration of multiple and difficult-to-measure variables—just does not lend itself to easy prediction.

However, good policymakers never let perfection be the enemy of the good. And if cycles of surpluses and shortages are an inevitable part of physician workforce planning, our goal should not be a futile effort to eliminate them, but rather to minimize them as much as possible. The central message of this paper is that the physician workforce planning process in British Columbia is too fragmented and too short-term in its focus to do so.

The nature of this flawed process is obvious to the multiple stakeholders influencing physician workforce planning, including the provincial government, health authorities, BCMA, universities, regulatory bodies, and medical community. Too often, each develops and implements their policies in isolation. The result compromises British Columbians' access to timely, high-quality, and effective physician services. Moreover, the health care system continues to face growing pressures from the increasing complexity of patient case-mix, the resulting demand for more physician time and services, the ongoing evolution of the practice of medicine, and the changing demographics of the physician population. Fully 42% of BC's physicians, for example, are 55 years old or older.

In this paper, the BCMA examines the challenges of physician workforce planning through the lens of the medical career lifecycle. Each stage—medical student, resident, practicing physician, and near-retirement—offers opportunities for stakeholders to improve current policy and understanding on the individual choices that physicians make about what, how, and where they practice. Doing so will align physician resource planning more closely with the population's need for health care services. Some of these can be implemented immediately by the government. For example, an increase in the number of government-funded residency positions would add greater flexibility in the postgraduate training system and allow opportunities for re-entry and enhanced skills training for practicing physicians. Others will take longer. Among the most significant recommendations of the paper are:

- Establishing a multi-stakeholder provincial committee led by the BCMA, Ministry of Health, and the health authorities to direct and coordinate the development of physician resource plans and to identify short- and long-term physician resource priorities.
- Developing a provincial analytical framework for needs-based physician resource planning.
- Creating a provincial physician workforce database to form the basis of physician resource planning.

Physician workforce planning is not solely a technical exercise; it is also a value-driven one. The future need of physicians is influenced by the political and social choices that underlie the health care system, and how the future role of the physician is defined. There is no one ideal physician-to-population ratio or optimum number of physicians – other than the one that fully-informed British Columbians support. By adopting a more collaborative and comprehensive planning approach, both provincially and nationally, stakeholders can minimize unintended policy impacts, the mismatch between supply and needs, and costly duplication. This common goal should propel all stakeholders to work together thoughtfully and collaboratively to improve physician workforce planning, because what we prepare for now will be what we get later.

# Recommendations

## Recommendation 1

The BCMA, Ministry of Health, and health authorities should jointly establish a permanent provincial Physician Workforce Planning Committee to direct and coordinate the development of physician resource plans, and to provide advice about strategies and mechanisms to meet the requirements of the plans. Additional members should include representatives from appropriate stakeholder organizations including, but not necessarily limited to, the Faculty of Medicine, the College of Physicians and Surgeons of BC, and the Medical Services Commission.

## Recommendation 2

The Physician Workforce Planning Committee should develop a provincial analytical framework for needs-based physician resource planning.

## Recommendation 3

The Physician Workforce Planning Committee should coordinate the development of a comprehensive provincial physician workforce database to form the basis of physician workforce planning and the development of full-time equivalent methodologies.

## Recommendation 4

The Faculty of Medicine, in consultation with the Physician Workforce Planning Committee, should determine undergraduate medical school enrolment, and enrolment should be informed by long-term physician resource plans.

## Recommendation 5

The Medical Human Resources Planning Task Force, in consultation with the Physician Workforce Planning Committee, should ensure that postgraduate training positions be allocated among the specialties in relation to physician resource requirements, as reflected in long-term physician resource plans.

There should be adequate government-funded postgraduate training positions available to accommodate the following:

- Each year's graduating class through to certification and licensure.
- Specified numbers of licensed physicians currently practising in British Columbia who are qualified for re-entry or enhanced skills training.
- Specified numbers of International Medical Graduates who are Canadian citizens or permanent residents, and who are not currently fully licensed to practise medicine in British Columbia.

### **Recommendation 6**

The Faculty of Medicine should consider strategies that support broad-based medical education and the provision of objective career information for medical students and residents.

### **Recommendation 7**

Recruitment and retention programs should develop comprehensive and flexible incentives that address the professional and personal needs of physicians.

### **Recommendation 8**

The Ministry of Health and the health authorities should ensure adequate resources and coordination for the development, implementation, and ongoing evaluation of physician recruitment and retention programs

### **Recommendation 9**

The Ministry of Health and the BCMA, in conjunction with the health authorities, should develop strategies to support the retention of physicians who are nearing retirement.

# Introduction

Better physician workforce planning is needed to ensure patients have timely and appropriate access to medical services in the future.

The issues of physician supply, mix, and distribution have permeated discussions of Canadian health care policy for decades. Stabilizing physician supply is not easy, and despite advice from many national and provincial task forces, the health care system continues to face cycles of physician shortages and surpluses.

Today in BC, timely access to physician services remains a challenge. Patients are waiting longer between GP referrals and appointments with specialists, and many are having difficulty finding a GP or accessing physician services in a timely manner. As well, practising physicians face increasing demands on their time because of the growing complexity of their patient caseload and escalating patient expectations. It is paramount that physician workforce planning be responsive to the changing health needs of the population.

Currently, physician resource planning is fragmented – in part because several different parties are involved in controlling and influencing policy. In an effort to illustrate that the relevant policies are, in fact, interdependent, this paper examines current supply and demand trends, workforce management policies, and avenues for promoting change throughout the medical career life cycle, from entry into medical school until retirement from practice. These topics are organized under the following sections:

1. **The Physician Workforce: Planning for the future** – Reviews the main approaches to measuring and forecasting physician supply and considers how to strengthen current methodologies.
2. **Educating Physicians: Training today for tomorrow's needs** – Describes the recent trends of medical undergraduate and postgraduate training programs and provides insight on how to improve physician resource policy in this area.
3. **The Current Workforce: Measuring supply and demand** – Profiles the current physician workforce and highlights issues related to supply and demand analyses, recruitment, and retention.
4. **Retiring Physicians: Responding to an aging physician population** – Describes physician retirement patterns and considers ways to support and retain physicians nearing retirement.
5. **Recommendations** – Offers suggestions for improving the management of the physician workforce.

# I. The Physician Workforce: Planning for the future

*Planning for the future supply, mix, and distribution of the physician workforce is an important component of designing the overall health care delivery system. Planning begins by counting physicians and forecasting future requirements – which is not an easy exercise. To project how many physicians will be needed, a provincial planning framework is required. Also needed are valid measurement tools and accessible, accurate, and reliable data on which to build effective policy.*

## Counting Physicians

At the most basic level, physician workforce planning requires an accurate count of physicians. The most widely-used method of measuring physician supply in BC is simple head counts. The College of Physicians and Surgeons of BC, the Medical Services Plan, the BCMA, and individual health authorities and hospitals all have rosters and databases of physicians, making it easy for analysts to generate lists of head counts.

However, such ease comes at a price. The assumption on which head counts are based – that one physician is equal to any other physician, at least for the purpose of physician resource planning – is flawed. Practice patterns, level of practice intensity, and even hours worked can vary enormously among physicians. When these variations are ignored, head counts are poor estimates of the “real” number of physicians.

Some of the shortcomings of using simple head counts can be addressed by calculating “full-time equivalents” (FTEs). The FTE method assigns a single value to each physician, which quantifies a physician’s practice relative to what is considered a full-time load. There are three approaches used in Canada for calculating physician FTEs (Task Force Two, 2005):

- The fee-for-service FTE model used by the Canadian Institute for Health Information applies a set of national specialty specific benchmarks that are based solely on fee-for-service clinical billings.
- Alternative payment plan FTE models use a variety of methodologies to measure the proportion of physician payments that are not reimbursed on a fee-for-service basis (e.g., salary, sessional, population-based funding, blended).
- The hours worked per week FTE model weighs physician counts in relation to hours worked per week as reported on physician surveys.

The fee-for-service FTE model is the most commonly used approach of these three because billing data are readily available and regularly updated. However, this model underestimates physician supply because it does not capture recent changes in practice patterns such as the growing movement toward non-fee-for-service physician payments. Alternative payment plan FTE models can help capture the diversity of physician practice, but a major limitation to them is the lack of a standardized methodology in Canada.

The hours worked per week FTE model has the potential to capture, in a standardized manner, the workload of physicians under all types of payment arrangements and could facilitate comparisons with other health care providers. However, this model has limited ability to verify the accuracy and consistency of self-reported data on working hours. As well, productivity is not taken into account.

None of the three approaches measures an outcome-based practice approach, quality, effectiveness, or efficiency.

Another consideration when trying to accurately count physicians is the need to identify "functional specialties." Functional specialty refers to the clinical services and other professional activities actually performed by an individual physician, as opposed to his or her certified specialty (i.e., College of Family Physicians of Canada and Royal College of Physicians and Surgeons of Canada certification held by the physician) (Task Force Two, 2005). For example, a certified internist may actually, in fact, provide mostly cardiology services.

Functional specialties can be influenced by wider health care trends such as the growing and evolving body of clinical knowledge, emerging specialties or subspecialties, new technologies, population demographic trends, and changes in population health needs. Calculating functional specialties is important because the information captured can be used to eliminate the problem of overestimating services available, which happens when it is assumed that physicians are providing a comprehensive range of services in their certified specialty. For example, functional specialty analyses would capture the information on certified GPs who work mainly in hospital emergency rooms, or certified physicians who spend a significant amount of time in clinical teaching and research.

Functional specialty analyses quantify how much of physicians' work time is devoted to direct patient care and, within that time, what types of direct patient care they are providing. Functional specialty can be quantified using two main sources of information: administrative data on health care provision (e.g., peer review of clinical activity, billing data, diagnostic codes) and survey data (e.g., from the National Physician Survey). Calculating functional specialties accurately depends on several factors, including the availability of funding, consistent data, and objective classification schemes.

Figure 1 summarizes the advantages and disadvantages of the different approaches to counting physicians.

**Figure 1: Methodologies for Measuring Physician Supply – Advantages and Disadvantages**

Methodology	Advantages	Disadvantages
Panel surveys	• Easy to recruit and analyze	• Does not account for work load • Does not account for specialty • Does not measure satisfaction, effectiveness, or efficiency
Fee-for-service FTEs	• Billing data are readily available and available	• Does not capture non-fee-for-service physician payments • Does not measure satisfaction, effectiveness, or efficiency
Administrative program plan FTEs	• Better captures the diversity of physician specialties	• For staff-based health care institutions • Does not measure satisfaction, effectiveness, or efficiency
Health system and group FTEs	• Captures work load trends at health system	• Does not capture satisfaction, effectiveness, or efficiency
Practice specialty analysis	• Better captures overutilization of health care services	• May have limited interest in cost, quality, effectiveness, and efficiency outcomes



## Forecasting Physician Supply

Forecasting how many physicians will be required in the future is fundamental to overall workforce planning. Three different approaches have been used in Canada to model physician supply and demand: supply forecasting, utilization forecasting, and needs-based planning. Each approach has advantages and disadvantages, which are considered below and summarized in Figure 2.

**Supply forecasting**, or stock and flow analysis, is the most common approach for forecasting physician supply (Chan, 2003). In this method, data on the current number (i.e., stock) of physicians are collected. Based on this initial starting point, numbers of additional personnel are generated, taking into account physician increases (i.e., new medical graduates and residents, immigration), decreases (i.e., deaths, retirements, emigration), and projected population growth. Using the physician-to-population ratio as the planning tool, scenario analyses can then be performed to examine the potential impact of changes in certain variables (e.g., what happens if the rate of retirement increases).

Note, however, that the usefulness of supply forecasting is limited because the projections are based on the assumption that the physician-to-population ratio must either stay the same or be higher in the future to meet population health care needs. As well, the projections do not account for external factors that can affect the demand for physician services such as population demographics or disease prevalence. One widely-used supply forecasting model is the Canadian Medical Association's Physician Resource Evaluation Template model (Buske, 2010d).

**Utilization forecasting** is similar to supply forecasting, but it also takes into account the patterns of service delivery and utilization of health services (Task Force Two, 2005). In this analysis, current physician supply is estimated using per capita ratios in head counts or FTEs. These ratios are projected into the future, based on changes of physician flow rates and population growth. Adjustments for changing demographics may be performed by examining utilization rates in different patient age-sex categories and then modeling increases based on projected population growth in these categories.

However, utilization measures are limited because they do not indicate whether physician supply is appropriate relative to the needs of the population, and they assume the level, mix and distribution of physicians remains constant over time.

**Needs-based planning** estimates the health needs in the population by using disease prevalence or other health-related indicators (Task Force Two, 2005). This approach begins with the premise that the current distribution of physicians may not necessarily reflect the distribution of health care needs in the population. Although there is a growing consensus among decision-makers that planning for physician resources should be based on the population's health care needs, few attempts have been made to translate these needs into physician resource requirements because of a limited knowledge base and methodological challenges (Canadian Nurses Association & Canadian Medical Association, 2007). One recent example is the development of a population needs-based physician simulation model in Ontario, which compares needs to the supply of physician services by using number of hours of care needed and provided, quantifying the variance, and converting the variance into a head count by applying the average number of hours worked per year (Ontario Ministry of Health and Long-Term Care and Ontario Medical Association, 2010).

Some drawbacks of needs-based planning are the limited available data, lack of a "gold standard" method for translating need into physician requirements, and difficulty of prioritizing the population's health needs, which can be an intricate and value-driven exercise.

**Figure 2: Forecasting Methodologies – Advantages and Disadvantages**

Methodology	Advantages	Disadvantages
Supply forecasting	• Easy to understand and control	• Does not indicate how the physician population will react to the need for increase in the future • Forecasted recruitment is not realistic
Utilization forecasting	• Takes into account the increase or decline of service delivery based on trends	• Does not indicate whether physician supply is sufficient to meet the population's health needs • Assumptions, rate, and distribution of a forecast remain constant
Physician-focused planning	• Reveals the distribution of needs in the population, and accordingly, as a determinant of physician requirements	• No "gold standard" method for translating need into physician requirements • Different population groups have health needs

In BC, physician resource planning occurs at the regional level. Region-wide physician human resource plans are developed by the various health authorities to assist with their recruitment efforts, as required under the Health Authorities Act (K. Phipps, personal communication, November 22, 2010; J. Prince, personal communication, October 21, 2010; T. Ward, personal communication, November 2, 2010; B. Warren, personal communication, October 21, 2010). However, these plans have several shortcomings. First, the comprehensiveness, methodologies, and level of implementation of these plans vary by health authority. Second, there is limited or no planning for GP resource requirements. (The Northern Health Authority is addressing this latter issue by developing a planning model for community-based care in conjunction with clinical department service delivery plans.) Finally, the Ministry of Health does not currently forecast provincial physician resource needs or coordinate regional physician resource planning efforts; however, it is currently engaged with health authorities in planning for future population needs in condition/disease groups (e.g., chronic diseases) and assessing its impact on future service delivery and health human resource requirements including physicians (J. Higgs, personal communication, January 26, 2011).

### Availability of Physician Workforce Data

When developing their physician resource plans, health authorities are challenged by the lack of high-quality data and by having no provincial planning framework to guide regional efforts. In fact, physician workforce planning, in general, is hampered by incomplete data, methodological challenges, and inadequately developed conceptual frameworks (Ontario Medical Association Human Resources Committee, 2007). Currently, health authorities maintain their physician resource plans largely by using hospital physician databases, supply and demand data, and input from the clinical departments, medical directors, and medical advisory committees. Provincial, regional, and national databases report different numbers of physicians, and none has been able to provide comprehensive, consistent information on the services physicians provide or on their workload.

## Key Considerations

No perfect methodology exists for forecasting physician supply. Simulating future physician resources is not an exact science and the results will never be completely accurate. Nevertheless, the value of physician resource projections is to identify the current and emerging trends to which policymakers need to respond. In BC, the methodologies of using simple head counts and utilization forecasting can be strengthened by considering the following:

**1. *As a complement to simple head counts, using robust FTE methodologies and functional specialty analyses would provide a more accurate depiction of physician supply.***

The use of simple head counts for analysis and planning, as already stated, implies that all physicians are equal in terms of their capacity to provide services. However, the “service output” varies among physicians because of different workloads and practice activities. Physicians may be semi-retired, working part-time, or participating in a mix of clinical, teaching, administrative, and research activities within their practice. The conventional approach to measuring service output (e.g., clinical billings) may not be comprehensive enough in light of the growing shift toward alternative delivery models, alternative payment mechanisms, and outcomes-based practice. In the future, FTE measurements should use flexible data collection methodologies to obtain information on a variety of activities, regardless of mode of payment, and new service output measures that relate to quality and outcomes.

As well, if effective workforce planning is to occur, then the services that physicians actually provide must be identified. Reports show that there are significant variations in scope of practice among GPs and specialists; fewer GPs are providing obstetrics, anesthesia, advanced procedural skills services, and hospital inpatient care, and some physicians are providing services in a subspecialty within their certified specialty. To determine how much of physicians’ work time is devoted to direct patient care and the types of care they are providing, functional specialty analyses must be carried out.

**2. *A provincial analytical framework is needed to ensure that forecasting methods incorporate needs-based planning.***

Current physician workforce planning is largely based on utilization patterns, the supply of physicians, and budgetary capacity rather than on population health needs. The recurrent cycles of over- and undersupply of physician resources can be traced, in part, to the shortcomings of utilization-based planning. Developing the capacity for needs-based planning requires a provincial analytical framework to direct and organize decision making, and more comprehensive and standardized data (see below).

**3. *Effective physician workforce planning requires accurate, accessible, and standardized data.***

Currently, efforts to reconcile physician databases across the province are limited. As a result, it may be difficult to obtain an accurate number of practising physicians, which in turn leads to inaccurate supply projections. Regardless of the forecasting methodology implemented, measurement tools must be able to consistently quantify the supply of physicians, and consistently evaluate historical, current, and future supply projections in the province. Further developments in forecasting methodologies will also benefit from more comprehensive data on factors and variables, such as demographics and disease prevalence; valid physician workforce indicators, such as FTEs and functional specialties; and the identification of appropriate evaluation outcomes of forecasting methodologies used.

## II. Educating Physicians: Training today for tomorrow's needs

*The medical education and training system, both undergraduate and postgraduate, has a direct impact on the future supply, mix, and distribution of physicians. Over the past decade, the undergraduate enrolment size and residency program have more than doubled. This trend is welcomed, but more opportunities for practicing physicians to retrain and enhance their skills are needed. Furthermore, the allocation of residency training positions requires closer examination to ensure that the future mix of physicians will meet the health needs of the population.*

### **Undergraduate Medical Education**

The undergraduate enrolment size for medical school is determined by the provincial government. In 1992, the provincial governments collectively decided to reduce undergraduate enrolment by 10% (Barer & Stoddart, 1992). That decision was reversed in the late 1990s, and since then the number of undergraduate first-year spaces at Canadian medical schools has increased steadily. Between the 2000/01 and 2009/10 academic years, first-year enrolment at the University of British Columbia (UBC) increased from 120 to 256 students (Bates, 2008). This increase coincided with the introduction of a distributed learning model, which expanded pre-clerkship education to the University of Victoria and the University of Northern British Columbia. The opening of another regional campus in Kelowna is planned for the fall of 2011, which will increase total first-year enrolment in BC further to 288 students.

### **Postgraduate Clinical Training**

The increase in BC's postgraduate training capacity has focused on matching the size of the graduating medical class and ensuring an adequate number of residents in major specialty programs at the distributed sites to support clerkship education of third- and fourth-year students in the undergraduate program (Webber, Rungta, & Sivertz, 2008). Since 2004, two general principles were used to guide the allocation of new residency positions: first, the positions were split between family practice and the Royal College specialties at a ratio of 40% to 60% (as agreed to nationally by all the Canadian medical schools), and second, the initial increases would go to major specialty programs (see Figure 3).

Figure 3: Quota Overview – University of British Columbia In First Iteration R-1 Match, 2011

	Quota	International Medical Graduates Quota
Anesthesiology, Perioperative	4	
Cardiology		
Cardiothoracic Surgery	10	1
Chiropractic		
Community Medicine	2	
Dermatology	3	
Diagnostic Radiology	2	
Emergency Medicine	5	
Family Medicine	103	11
General Surgery	8	
Geriatrics & Palliative Care	1	
Internal Medicine	40	1
Medical Genetics	1	
Medical Microbiology	1	
Nephrology	3	
Neurology, Pediatric	2	
Neurosurgeons	1	
Neurologists	2	
Oncology & Radiotherapy	1	
Ophthalmology	1	
Otolaryngology	3	
Orthopedics	3	
Orthopedics, Pediatric	2	
Osteopathy	2	
Pediatrics	10	1
Physical Med & Rehab	2	
Plastic Surgery	2	
Physiology	20	2
Podiatry	2	
Psychiatry	1	
<b>Total</b>	<b>154</b>	<b>18</b>

Source: Canadian Resident Matching Service, 2011

The planning of BC's residency training programs is determined by the Medical Human Resources Planning Task Force, which is co-chaired by the Dean of Medicine and the Assistant Deputy Minister of Health, and includes representation from all the health authorities and the Faculty of Medicine. Recommendations are made to this committee by an internal Resident Allocation Committee consisting of department heads and the Associate Dean for Postgraduate Medical Education (E. Webber, personal communication, January 28, 2011).

The percentage of Canadian medical school graduates choosing family medicine as their first choice decreased from around 40% in the early 1990s to 26% in 2004, but it has recently increased to 33% in 2010 (Canadian Resident Matching Service, 2010a; Task Force Two, 2005). The percentage of UBC graduates who chose family medicine as their first choice of residency in 2010 was 30% (Canadian Resident Matching Service, 2010b), and the percentage of family medicine R1 positions filled at UBC in 2010 was 95.9%, which is higher than the Canadian average of 84.5% (Canadian Resident Matching Service, 2010a). Other specialist vacancies after the first iteration R1 match at UBC in 2010 include pediatric neurology, neuropathology, cardiac surgery, hematological pathology, medical biochemistry, medical genetics, neurosurgery, and psychiatry (Canadian Resident Matching Service, 2010d).

### ***International Medical Graduates***

International Medical Graduates (IMGs) who wish to practise in BC must have certification either from the College of Family Physician of Canada or the Royal College of Physicians and Surgeons (RCPSC) of Canada, which in most cases requires completion of an approved residency training program within Canada. IMGs in BC may apply for residencies:

- In the first iteration of the Canadian Resident Matching Services (CaRMS) through the BC-IMG program; or,
- In the second iteration of CaRMS on their own.

It is difficult for IMGs to gain access to residency training. In 2010, across Canada 18% of IMG applicants<sup>a</sup> were matched in the first iteration compared to 96.3% of Canadian medical graduates (Canadian Resident Matching Service, 2010c). Currently, 19 residency positions are available in the BC-IMG program, with 13 in family medicine and 6 in RCPSC specialties. The size of the IMG residency program is planned to increase by 8 positions per year beginning in 2012, until it reaches 58 positions in 2016 (S. Anderson, personal communication, June 1, 2011).

In addition, for more than 25 years UBC has provided residency education to foreign-sponsored residents who return to their countries of origin on completion of their medical training. The program directors and faculty members in each specialty or sub-specialty residency program decide if they have the resources and capacity to train these residents in addition to their cohort of Canadian medical graduates and IMGs. With greater priority being placed on training Canadian medical graduates and IMGs as residency programs expand, the number of foreign-sponsored residents has declined over the past five years (Jamieson, Webber, & Sivertz, 2010).

### ***Re-entrants***

Re-entry trainees are doctors who are qualified as GPs and who are undertaking specialization training after a period of time in general practice. The percentage of re-entry trainees in the total Canadian exit cohort from RCPSC specialty programs decreased from 25% in 1992/1993 to 6% in 2008/09 (Canadian Post-M.D. Education Registry, 2009-2010a; Jamieson, et al., 2010).

The routine path of re-entry to training programs ended when the one-year rotating internship was eliminated in 1994. As a result of that change, all the postgraduate positions were filled by graduating medical students, who now must complete a minimum of two years of training. To increase flexibility for re-entry training, UBC created a re-entry residency program in 2001, but this program was not widely known by practising physicians, and applications and admissions to the program were limited (Jamieson, et al., 2010). Consequently, between 2001 and 2009, the total

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<sup>a</sup>IMGs from Alberta and Manitoba are not included or identified by CaRMS. Alberta uses its own internal process to match IMGs to residency positions in Alberta. Manitoba makes no distinction between IMGs and Canadian medical graduates applying to CaRMS thus they are treated as one combined pool of residents in CaRMS.

number of re entrants exiting BC postgraduate training programs (i.e., family medicine and specialty) changed little, from 18 to 21 (Canadian Post-M.D. Education Registry, 2002, 2009-2010b).

Physicians who were potential candidates for UBC's re-entry program voiced concerns about the availability of part-time training, a return-of-service financial package, and the ability to train in regional centres (Jamieson, et al., 2010). Due to the significant expansion of the residency program and the need to match the number of R1 positions with graduating medical students, there are currently almost no re-entry positions (E. Webber, personal communication, January 28, 2011).

### ***R3 Enhanced Skills Program***

Since 1995, the Department of Family Practice at UBC has made available a number of government-funded residency positions for practising general practitioners and specialists for the purpose of developing specific advanced skills to meet an identified community need. Generally, a flexible program is offered to accommodate the goals and objectives of the physician. Typically no certification will follow the completion of the Enhanced Skills Program, and training can range from 2 to 12 months. Over the past 15 years, the program has expanded from 4 to 35 residents training within an academic year (P. Newbery, personal communication, February 22, 2011). Demand for the program continues to grow: applicants were turned down for the first time for the upcoming 2011/2012 training period.

## **Key Considerations**

Although significant strides have been made to increase the number of medical graduates, more work is needed to meet future needs. The following points should be considered:

- 1. The population's future need for physician services should be explicitly incorporated into the decision to allocate postgraduate training positions.***

Faculty leadership is very focused on the challenges of increasing enrolment while maintaining high-quality education, which may, at times, come at the cost of ensuring that the mix of physicians continue to meet the population's health care needs. The creation of the Medical Human Resources Planning Task Force was an attempt to bridge decision making between the health authorities, who are responsible for physician workforce planning; the Ministry of Health, who provides postgraduate funding; and the Faculty of Medicine. However, the allocation of postgraduate training positions across the spectrum of health care disciplines remains a subjective process driven by self-reported data on need (i.e., appraisals of clinical training capacity and employment opportunities by members of the Resident Allocation Committee). As a result, the allocation of postgraduate training positions may be too heavily influenced by academic priorities (i.e., number of residents required to maintain budgets, training programs and support research), lobbying from larger clinical programs, and a reliance on residents to cover hospital on-call. Greater coordination between physician resource planning and the medical education system is needed so that the population's health care requirements and available job opportunities are better matched to the residency positions offered.

## **2. *Strategies are needed to increase the supply of generalist physicians.***

The trend toward specialization and sub-specialization, resulting from an explosive growth of scientific knowledge and technologies, has come at the expense of a more holistic perspective and appreciation of the role of generalism. Generalist physicians are vitally important to an effectively functioning health care system, but they are lacking in numbers in BC, with critical shortages in generalist internal medicine and general surgery for example (J. Prince, personal communication, October 21, 2010; T. Ward, personal communication, November 2, 2010; B. Warren, personal communication, October 21, 2010).

Many reasons have been suggested for the declining interest in generalism including a reduced role and stature of generalists within the health care system, particularly in major urban centres, the lack of generalist physicians as faculty in tertiary-care teaching settings, the inadequate reward and recognition for general expertise, and an early and inflexible career decision-making process that favours sub-specialties as a career choice (Task Force Two, 2005). (The last is attributed to the abolishment of the rotating internship that permitted residency selection at a later stage in medical training, as well as reduced opportunities for re-entry and program switching).

## **3. *How and why medical students and residents choose specialties needs to be better understood.***

There is considerable debate over what factors influence the professional choices of medical trainees because the career preference of Canadian medical graduates has an important impact on the mix of practising physicians. Recent survey data showed a mismatch between student career choice at medical school entry and the current specialty mix of physicians in Canada, particularly in urban family medicine and psychiatry (Scott, Wright, Brenneis, & Gowans, 2009).

The cost of tuition, debt loads, perceived lifestyle, and concerns about burnout and stress are some of the more common issues raised as key influences. But primary research with medical students indicates that there are a number of other factors guiding career decisions. It appears that most students are strongly influenced in their choice of clinical field during residency by the guidance of role models both inside and outside the medical education system. As well, formative experiences, personal interests, and intellectual curiosity also influence the choice of specialty, although there is limited evidence on how strong these factors are (Task Force Two, 2005).



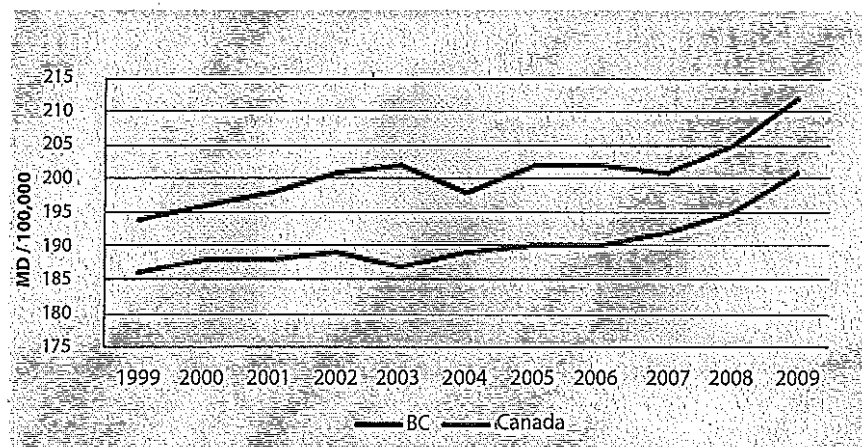
### III. The Current Workforce: Measuring supply and demand

*Several factors – an aging profession, intergenerational differences in workload expectations, and growing demand for health services – will continue to challenge efforts to maintain an adequate supply and mix of physicians. More robust and coordinated workforce management policies are necessary to ensure that the supply of physician services meets future demand.*

#### Physician Supply in BC

In keeping with the national trend, the total number of physicians in BC has increased over the past decade<sup>b</sup>. This increase is due to a number of factors, including having larger graduating classes from medical schools and hiring more foreign-trained doctors. Using data collected by the Canadian Institute of Health Information, the total number of BC physicians per 100,000 population increased at 9.3% between 1999 and 2009 (see Figure 4). Internationally, however, Canada's 2.3 practising physicians per 1,000 population continued to remain well below the OECD average of 3.2 in 2008 (OECD, 2010).

**Figure 4: Physicians per 100,000 Population, BC and Canada**



Source: Canadian Institute for Health Information, *Supply Distribution & Migration of Canadian Physicians*, various years.

Physician headcounts must be considered in the context of other factors, including changing demographics and practice patterns, which to a certain degree can be captured in FTE counts. However, a standardized methodology for calculating physician FTEs based on all payment arrangements is lacking in BC.

Projections by the Canadian Medical Association suggest that the existing BC physician-to-population ratios and FTE-to-population ratios (based on hours of direct patient care) should continue on a slight upward trend over the next ten years, assuming that retirement rates, postgraduate exits, migration rates, and characteristics of the physician pool

<sup>b</sup>Several physician databases may be used for tracking the overall number of active physicians in BC including the Canadian Medical Association Masterfile, the Medical Services Plan fee-for-service database, the College of Physicians and Surgeons of BC, and Scott's Medical Database. Making comparisons of physician counts from different databases can be difficult due to the variations in scope and the inclusion and exclusion criteria applied by each source, as well as the timing of their data collection.

remain unchanged (Buske, 2010d). However, when these crude ratios are adjusted for the demographic shifts of the populations, the projections are less optimistic: head counts per population would increase at a lower rate and FTEs per population would more or less remain constant. Nevertheless, supply issues such as the uneven regional distribution of physicians, particularly in rural settings, and the under-representation of physicians in certain specialties, are likely to remain problematic in coming years.

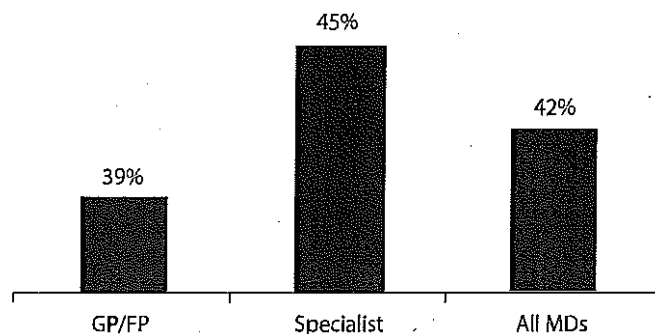
## Supply Factors

Several factors and trends can affect the supply of, and demand for, physicians. Some of these are described below.

### *Physician demographics*

In 2009, the average age of the BC physician workforce was 49.6 (Canadian Institute for Health Information, 2010). In 2010, 42% of all BC physicians were 55 years old or older (see Figure 5), and certain specialties had a majority in this age group, including dermatology (57%), clinical immunology/allergy (56%), internal medicine (52%), and general/clinical pathology (51%) (Buske, 2010a).

**Figure 5: Percentage of Physicians 55 years and older, BC, 2010**



*Source: Canadian Medical Association Masterfile, 2010*

The number of female physicians in the workforce has been steadily increasing over time. Between 1979 and 2009, the percentage of female physicians in the BC workforce has increased from 11.9% to 32.9% (Canadian Institute for Health Information, 2010). Traditionally, there have been more female GPs than female specialists, and this trend continued in 2009, with 37.3% of family medicine physicians and 27.5% of specialist physicians being female.

Parental responsibilities have a significant impact on the average number of hours worked per week, especially among female physicians. In 2007, for example, Canadian female physicians with children younger than five years old worked on average 12.9 hours less per week than their male counterparts, excluding call. This gap narrows for female physicians with children over 10 years old, with females working 5.9 hours less than males. When there are no children dependants, female physicians work similar hours to male physicians (females working 1.3 hours less per week than males) (College of Family Physicians of Canada, Canadian Medical Association, & Royal College of Physicians and Surgeons of Canada, 2007).

### Physician migration

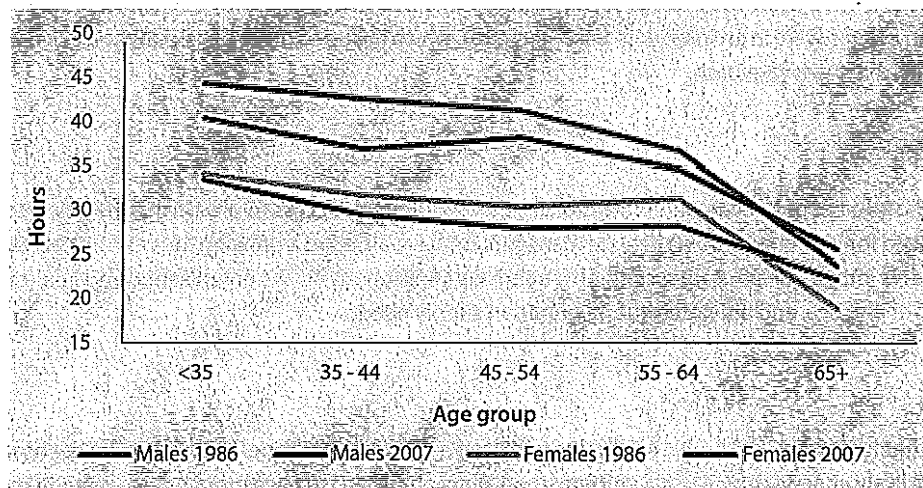
Gaining physicians through international migration can occur in two ways: either physicians who were previously in Canada return after working abroad, or internationally-trained physicians immigrate to Canada. Conversely, Canada can lose physicians through emigration. Over the last three decades, overall net immigration was highest between 2000 and 2009; during this period BC had a net gain of 978 physicians, largely due to the significant increase in the number of new IMGs compared with the previous two decades (Canadian Institute for Health Information, 2010).

Physicians can also be lost or gained through interjurisdictional migration. Physician interjurisdictional migration data shows that BC, Prince Edward Island, Ontario, and Alberta gained more physicians than they lost in all three past decades, while Newfoundland and Labrador, Nova Scotia, Quebec, Manitoba, Saskatchewan, and the Northwest Territories lost more physicians than they gained (Canadian Institute for Health Information, 2010). Between 2005 and 2009, net gains in BC ranged from a low of 26 physicians in 2007 to a high of 117 physicians in 2005. In 2009, BC gained 93 physicians through interjurisdictional migration.

### Changes in workload

Physicians are engaged in a variety of tasks throughout their work week, including patient care, teaching, research, administration, and continuing professional development. Over the past 20 years, a decline in self-reported hours of direct patient care (excluding call) has been observed for both sexes and across all age groups except for those over 65 years of age in BC (see Figure 7) (Buske, 2010b). The changes in age distribution appears to also have an effect on the supply of physician services: Watson and colleagues found declines between 1993 and 2003 in average service volumes provided by successive cohorts of younger physicians, but increases among older physicians (Watson, Slade, Buske, & Tepper, 2006).

Figure 6: Average Weekly Direct Patient Care Hours (excluding call), BC, 1986 & 2007



Source: 1986 CMA Physician Resource Questionnaire, 2007 National Physician Survey

The average total hours worked per week appear to have remained fairly stable between 1997 and 2007 in BC for both sexes, thus suggesting that the fall in direct patient care hours arose from a reallocation of physician time among professional activities (Buske, 2010c). Recent survey data have shown that average hours spent on teaching and non-direct patient care (e.g., charting, phone calls, talking to family members) have increased (College of Family Physicians of Canada, Canadian Medical Association, & Royal College of Physicians and Surgeons of Canada, 2004; College of Family Physicians of Canada, et al., 2007).

Overall, approximately 9 out of 10 undergraduate medical students and second-year residents ranked work-life home-life balance as the most important factor underlying their professional satisfaction (Royal College of Physicians and Surgeons of Canada, 2009). Yet so far, total weekly work hours vary little across age groups. In 2007, BC physicians 44 years old and younger reported on average slightly fewer weekly work hours (excluding on-call) than their older colleagues up to age 65 years and over (College of Family Physicians of Canada, et al., 2007). Given that the future generation of physicians places great emphasis on being able to balance work life with home life, it will be important in coming years to keep a watchful eye on the future practice patterns.

In the BCMA's 2010 Membership Survey, the most often-cited professional challenge was "workload/lack of time." Overall, Canadian physicians who are satisfied with their work-life home-life balance average 48 hours per week (excluding on call), while those who were dissatisfied average 59 hours per week. The absolute volume of hours worked is not always a cause of dissatisfaction, but it does appear to be an influence among the majority of physicians in the community.

### ***Practice settings***

For a number of reasons, the delivery of physician services is likely to continue its shift away from solo practices toward group and interprofessional practice settings. Younger physicians prefer group settings, and health authorities are increasingly interested in promoting interprofessional teams to address human resource issues and the rising demand for health care. According to the National Physician Survey (2007), the percentage of BC physicians under the age of 35 in group practice was 66%, while the average for all BC physicians was 48%. The survey also showed that, on average, 22% of the BC physicians were in an interprofessional practice, which included other physicians and allied health professionals with their own caseloads.

### ***Interprofessional practice***

The growth in the number of allied health professionals, the lack of timely access to physicians, the desire to contain costs, and the need for improved chronic disease management have all led to a growing interest in integrating non-physician providers into the health care system. This trend has implications on the organization and financing of service delivery, scopes of practice, and ultimately future physician supply needs.

### ***Technology***

Information technologies (e.g., electronic medical records, telehealth, telemedicine, teleradiology, wireless handheld technology) will likely enhance operational efficiency and allow physicians to have more time to provide patient care. However, technology can do more than increase efficiency; in some cases, incorporating new medical technology (e.g., diagnostic and intervention knowledge, pharmaceuticals, equipment) may qualitatively change the role and scope of providers, reduce the number of physicians required to perform certain services, and lead some physicians to assume more specialized roles (e.g., medical genetics).

## **Demand Factors**

The aging population presents significant challenges to the medical profession. Seniors make up the fastest-growing age group and, according to recent projections from Statistics Canada, those 65 years and older will reach around 24% of the BC population by 2031 (Statistics Canada, 2006). The aging population is a driver of demand because the need for health services typically rises with age. This can be demonstrated by the strong correlation between increasing per capita health spending with age: the final one-third of the life cycle is characterized by average per capita spending almost doubling in every subsequent 10-year age group (Ramlo & Berlin, 2010). Chronic diseases, which are more common in older populations, consume approximately 80% of the combined physician payment, Pharmacare, and hospital care budgets (Ministry of Health Services, 2011). The prevalence of chronic disease may increase 58% over the next 25 years and be a significant driver of demand for health services.

Increased patient access to health information and expectations for new medical treatments and technologies continue to exert pressure on the demand for physician services (Di Matteo, 2005). There are more baby boomers than people in other generations, and they are more affluent and independent than previous cohorts of elderly health care consumers. Consequently, they bring to the health care marketplace relatively high expectations about healthy aging and consumer-orientated health care. For instance, the demand for certain types of care such as joint replacements, cardiothoracic surgery, ophthalmology, urology services, and diagnostic procedures may increase as the baby boomers age (Denton, Gafni, & Spencer, 2003). Health technology innovation and utilization are not independent of demographic changes and will continue to have an impact on physician practice patterns.

## **Current Workforce Management Policies**

The workforce management policies that specifically target physicians currently in practice focus on recruitment, retention, and licensing standards.

### ***Recruitment and Retention Policies***

The majority of physician recruitment and retention incentives are provincially funded and developed through joint BCMA-government committees targeted to GPs, specialists, and rural physicians. The main objectives of these policies are to address geographic and specialty distribution. Most of the initiatives involve financial incentives such as premiums, income supplements, practice supports, new fee items, debt assistance, and supports for continuing medical education and locum coverage.

BC health authorities use a multi-pronged approach to recruit physicians in their jurisdictions: advertisements in medical journals, attendance at recruitment fairs and conferences, word of mouth, advertisements and notices on the Web (e.g., on health authority and professional websites, through email and social media), and information by direct mail and Health Match BC (J. Prince, personal communication, October 21, 2010; T. Ward, personal communication, November 2, 2010; B. Warren, personal communication, October 21, 2010).

### ***Licensing Standards***

The College of Physicians and Surgeons of BC establishes the standards that physicians must meet in order to obtain a licence to practise medicine in BC, which of course affects the flow of incoming physicians into the province. Recently, all provincial and territorial colleges of physicians and surgeons agreed upon a national common standard for GP

licences, with the plan to use that model for specialists in the future (Sylvain, 2010). It has been recommended that physicians holding a restricted or provisional licence be granted a similar licence if they are approved for licensure in another province, therefore enabling freer interprovincial migration of these physicians. Thus, the common standard will have no real impact on graduates from Canadian medical schools; rather, it is intended to standardize how the colleges handle IMGs.

## Key Considerations

The growth in physician head counts is a welcome trend, but as argued in an earlier section, the physician-to-population ratio is perhaps the crudest measure of physician supply. When the key factors that influence supply and demand of physicians are taken into account, it becomes clear that analyses need to be more robust, and that distribution challenges remain. To improve the management of the physician workforce, these key points should be considered.

### ***1. Analyses of the physician supply and demand need to take into account variables other than population growth and physician head counts.***

The complex dynamics of the physician workforce underscores the difficulty of adequately analyzing physician supply and demand. The current supply and demand analyses need to move beyond the use of simple head counts to more robust measures.

The supply of physician services is a function of how many doctors are available, how many hours they work, and how much service they provide for the hours worked. The demand for physicians depends on factors such as population size, prevalence of disease, and patient expectations.

Furthermore, other factors that affect physician productivity should also be considered. These include the use of technology, the support of other health providers, and available equipment and buildings.

### ***2. Physician supply is affected both directly and indirectly by a multitude of interdependent workforce management policies.***

An effective analysis of the physician supply and demand requires understanding that workforce management policies are interdependent. Such policies include medical school intake, licensing and professional regulation, immigration, and wages that are negotiated between medical associations and government. It is important for planners to consider both those policies targeted directly at managing physician supply and other policies and events that may affect supply indirectly.

A broad, fragmented network controls and influences the management of the physician workforce. It is made up of people and organizations at the federal, provincial, and local levels, politicians and government bureaucrats, professional associations, licensing authorities, educational institutions, and medical communities. However, currently there is no mechanism to ensure that the policy incentives developed by this network are consistent. The attempt to manage the problems of geographic distribution highlights this problem. Distribution is affected by various factors, such as how medical students are selected, what educational influences they are exposed to,

their financial situation, and their personal and professional lifestyle choices. Policy initiatives aimed at correcting distribution have tended to target these factors separately without fully considering the interdependence of distribution problems and the issues of overall supply, IMGs, remuneration, and broader health resource issues such as scope of practice.

**3. *Innovative strategies are needed to ensure that recruitment and retention strategies are comprehensive and effective.***

Although a strong foundation of financial incentives has been developed, the competitive environment for physicians calls for innovative strategies to be developed to ensure that recruitment and retention programs are comprehensive and effective. Simply increasing the number of physicians will not necessarily result in decreased competition for physicians, because new recruits will not be replacing retiring physicians on a one-to-one basis (due to increased specialization and different workload expectations). A better understanding is needed of all the factors that influence recruitment and retention, such as workload, compensation, practice environment, and access to continuing medical education. Ongoing monitoring of processes and outcomes will help to develop more robust strategies.

Furthermore, greater emphasis needs to be placed on retention, as recruitment is simply not enough. Systematic reviews of rural physician practices highlight this point: after recruits pay off their loans (provided to them as a recruitment strategy), they often leave because they and their families are not prepared to live in a rural area permanently (ELM Group: Quality in Healthcare, 2008).

## IV. Retiring Physicians: Responding to an aging physician population

*Large proportions of the physician workforce are nearing retirement, which will inevitably influence physician supply and workforce planning. However, a greater understanding of the extent of physician retirement is needed, and its potential impact should be examined from a broader perspective that includes changing practice patterns. Such an examination may help BC develop financial incentives and other work opportunities that support retention of older physicians.*

### Current Situation

In the late 1990s, close to 1,000 Canadian physicians retired each year. This figure dropped to fewer than 600 annually in the following decade (Canadian Collaborative Centre for Physician Resources, 2010). According to the BCMA 2010 Membership Survey, 21% of respondents plan to retire within the next 5 years, and 46% plan to retire within the 10 years.

Physicians tend to retire gradually, scaling back on their time and responsibilities before entering full retirement. According to the National Physicians Survey (2007), 47.6% of BC physicians who were 65 years old or older reported having scaled back their working hours over the previous two years. A study on the patterns of practice in the 65 years old and over fee-for-service GP population in Ontario found that older physicians were less likely than their younger counterparts to practise obstetrics, provide emergency room services, do house calls, or perform minor procedures (Chan, Anderson, & Theriault, 1998). The BCMA 2010 Membership Survey found that 86% of respondents stated that they plan on retiring gradually, either through cutting back on hours, cutting back on services provided, or both.

Retention payments based on length of continuous service exist in a number of Canadian provinces. Starting in 2010, BC physicians are eligible to receive an annual length-of-service benefit that can be deposited into an RRSP or individual pension plan if they have practised for a minimum of one year. The benefit rates vary depending on years of practice; the maximum amount is received after 20 or more years of practice (\$3,430 in 2010). To encourage long-term retention of physicians, Saskatchewan, Manitoba, Alberta, and Ontario offer physicians who practise for a defined period of time annual entitlements that will be paid to them at designated intervals (Alberta Medical Association, 2010; Doctors Manitoba, 2010; Ontario Medical Association, 2007; Saskatchewan Medical Association, 2010).

### Key Considerations

The issue of physician retirement is receiving increased attention as a growing number of physicians are aging. An assessment of the effect of physician retirement on workforce planning should consider the following points:

- 1. A greater understanding of the extent of physician retirement is needed.**

The literature on physician retirement in Canada is sparse. Much of the discussion is based inferentially on the aging physician population. Estimates of retirement rates differ depending on the data source used. Some databases, when tracking the numbers leaving practice, do not differentiate between retirement, death, moving to part-time practice, and other reasons. Because there is no clear-cut, consistent definition of retirement for physicians and there are differences in how retirees are counted, there are no authoritative estimates of physician retirement numbers (Pong, 2011).



**2. *The potential impact of an aging physician workforce should be examined from the broader perspective of changing practice patterns, rather than from the narrow focus of retirement numbers.***

Physician resource planning should not focus solely on head counts, but should also consider the changing practice patterns of aging physicians. If retirement is understood to mean complete cessation of medical practice, it should be seen as the end point of a continuum of changes in medical practice as a physician ages. Prior to full retirement, many other changes in medical practice can occur, such as a reduced workload and a narrowed scope of practice, which have implications for medical care provision and physician workforce planning. For instance, special populations such as rural residents may be significantly impacted because rural GPs tend to have a broader scope of practice than their urban counterparts (Pong & Pitblado, 2005).

**3. *Concerted efforts are needed to retain and support physicians nearing retirement.***

Physician workforce management policies have focused largely on increasing medical school enrolments, expanding postgraduate programs, and recruiting. But there are limited concerted efforts in BC to retain older physicians especially for those specialties where a majority are nearing retirement. The annual length of service benefit in BC recognizes years of service, but may not necessarily encourage retention. Targeted financial incentives and strategies that encourage other work opportunities beside full-time clinical practice need to be made available in order to keep older physicians in the workforce and make best use of their expertise and experience.

## V. Recommendations

*A comprehensive approach to managing physician workforce is required to ensure that patients have timely access to physician services. Currently, a broad network of fragmented control and influence exists over physician workforce management policies. The linkages and interdependencies between policies are apparent, yet there are few mechanisms to ensure that policy incentives are aligned or consistent. Given the level of complexity facing physician workforce management, there is no simple way to address physician supply issues. Nevertheless, improvements in physician workforce management can be achieved if all stakeholders are willing to commit to a coordinated examination of the issues affecting the medical career life cycle, and to not fall back on the status quo.*

The BCMA presents nine policy recommendations to improve the management of the physician workforce in the areas of planning, education and training, recruitment and retention, and retirement.

### **Recommendation 1**

The BCMA, Ministry of Health, and health authorities should jointly establish a permanent provincial Physician Workforce Planning Committee to direct and coordinate the development of physician resource plans, and to provide advice about strategies and mechanisms to meet the requirements of the plans. Additional members should include representatives from appropriate stakeholder organizations including, but not necessarily limited to, the Faculty of Medicine, the College of Physicians and Surgeons of BC, and the Medical Services Commission.

Effective physician workforce planning must take into account several factors: the necessary timeframes for producing and retraining physicians in the context of the medical career life cycle, the variety of organizations that have a legitimate interest in physician workforce planning, and the need to adjust for changing supply and demand factors. Therefore, it is important that a provincial process be in place to support physician workforce planning at the regional level to ensure coordination, standardization, and implementation.

The BCMA recommends that a permanent provincial Physician Workforce Planning Committee be jointly established by the BCMA, Ministry of Health, and health authorities to direct and coordinate the development of physician resource plans, and to provide recommendations about strategies and mechanisms to meet requirements of the plans. Additional members should include representatives from appropriate stakeholder organizations including, but not necessarily limited to, the Faculty of Medicine, the College of Physicians and Surgeons of BC, and the Medical Services Commission. Ongoing responsibilities of the Physician Workforce Planning Committee should include:

- Providing physician resource projections that identify BC's short- and long-term needs.
- Ensuring that long-term physician resource plans include a built-in evaluation component and mechanism to allow for "mid-course" corrections, as appropriate.

- Evaluating health authorities' physician resource planning targets and strategies annually and recommending changes as required.
- Identifying short- and long-term physician workforce priorities and strategies to obtain priority physician resources.

It is clear that the multiple and sometimes conflicting interests of the various stakeholder organizations engaged in physician workforce planning need to be balanced against efforts to improve physician resource planning. Issues of political interests, territorial and professional advocacy, and financial accountability all become very real in planning physician resources. Nevertheless, the productive interplay between different stakeholders needs to be fostered through a structured, collaborative approach early in the process. Each stakeholder has a unique role in workforce planning, and understanding physician resource needs through these various perspectives will allow for better outcomes.

## Recommendation 2

The Physician Workforce Planning Committee should develop a provincial analytical framework for needs-based physician resource planning.

A provincial analytical framework for translating population health needs into physician requirements is needed. Physician workforce planning is generally based on estimating the effects of demographic change on the supply of and demand for physician services. However, this practice assumes that the relationships between age and needs and between the numbers of physicians and the quantity of services provided are independent of other factors and constant over time. An extended analytical framework that builds on traditional forecasting methods (e.g., supply based, utilization based) and incorporates health care needs and service provision can be composed of four distinct elements (Birch et al., 2009):

- **Demography:** The size and age distribution of the population being served.
- **Epidemiology:** The different levels of need independent of the demographic mix of the population.
- **Level of care:** The amount of services required to address a given level of need.
- **Productivity:** The average amount of services produced per provider.

In the traditional approach, by overlooking the influence of epidemiology, level of care, and productivity, each of these elements is implicitly assumed to be equal across communities and constant over time. By incorporating these elements into an analytical framework, any changes in these variables can be accommodated into the planning process. Moreover, each of these three variables can be influenced to varying extents by carefully considering their determinants. For instance, in the case of epidemiology, policies that prioritize prevention might be used to reduce the

incidence of certain conditions and therefore change the level and distribution of population health needs. The level of care for any particular need group will be determined within the economic and political context of the health care system and as it relates to prevailing or desired standards of service delivery. Productivity considers a variety of factors including the intensity of work (proportion of paid hours given to patient care), how work is organized, technological inputs, and inputs of allied health care professionals.

### **Recommendation 3**

The Physician Workforce Planning Committee should coordinate the development of a comprehensive provincial physician workforce database to form the basis of physician workforce planning and the development of full-time equivalent methodologies.

Physician workforce management would benefit from accessing more and better information. To avoid unrealistic expectations that information alone would create policies or solve problems, efforts to improve the amount and dissemination of information must be focused, and potential barriers such as inadequate resources and data privacy need to be addressed. Broader collaboration and consultation with other stakeholders is needed to emphasize the coordination of existing data sets and the identification of information gaps.

Having a minimum physician data set incorporated within a provincial physician workforce database would be useful, as it would help identify the priority information needed to form the basis of effective physician workforce management. For example, improving the information available on the workload and productivity of physicians would help in developing comprehensive full-time equivalent methodologies. Although the proposed database is supply-focused, the minimum data requirements to determine population health needs must also be considered as part of an overall physician workforce planning strategy.

### **Recommendation 4**

The Faculty of Medicine, in consultation with the Physician Workforce Planning Committee, should determine undergraduate medical school enrolment, and enrolment should be informed by long-term physician resource plans.

Undergraduate medical school enrolment is an important influence on the future supply of physicians, but changes in undergraduate enrolment should not be driven by government mandates to meet current needs. Rather, enrolment should be determined by the Faculty of Medicine in consultation with the Physician Workforce Planning Committee, and be informed by long-term physician resource plans. The process of educating physicians is, by its very nature, a long-term enterprise. Ideally, changes in undergraduate admission levels will take a minimum of 6 years and for some specialties up to 11 years to have an impact on physician workforce needs.

### **Recommendation 5**

The Medical Human Resources Planning Task Force, in consultation with the Physician Workforce Planning Committee, should ensure that postgraduate training positions be allocated among the specialties in relation to physician resource requirements, as reflected in long-term physician resource plans.

There should be adequate government-funded postgraduate training positions available to accommodate the following:

- Each year's graduating class through to certification and licensure.
- Specified numbers of licensed physicians currently practising in British Columbia who are qualified for re-entry or enhanced skills training.
- Specified numbers of International Medical Graduates who are Canadian citizens or permanent residents, and who are not currently fully licensed to practise medicine in British Columbia.

Effectively managing the postgraduate medical training system is key to ensuring that the mix of physicians is appropriate to meet the future medical needs of British Columbians. In the short term, postgraduate programs will continue to grow with the expansion of the medical school in 2011. Therefore, it is vitally important that the Medical Human Resources Planning Task Force, in consultation with the Physician Workforce Planning Committee, works toward ensuring that the mix of training positions meets the future specialty requirements as set in long-term physician resource plans.

The postgraduate training system should be sufficiently flexible to enable medical students to make informed career choices, accommodate resident program changes, and allow additional positions for re-entry, IMGs, and enhanced skills training. Allowing for flexibility in training choices would help address the concern among students that choosing a specialty early in their education may lead to unsatisfactory decisions. Having an adequate supply of re-entry and enhanced skill training positions is vital for physicians to expand their skill set or make the transition to another discipline, which in turn affects professional satisfaction, long-term retention, and the sustainability of health care programs in some communities.

Another essential component of the postgraduate training system is ensuring capacity at training sites to handle the number of residents. At the start of the expansion process almost all residency programs felt they had both the need and capacity to educate more residents. Currently, however, most department heads feel that their residency programs are at or near capacity (Webber, et al., 2008). A sustainable expansion of UBC's postgraduate training programs will require adequate resources and support for clinical faculty, as well as an examination of clinical teaching methods to ensure the most effective use of clinician teachers and clinical settings.

### **Recommendation 6**

The Faculty of Medicine should consider strategies that support broad-based medical education and the provision of objective career information for medical students and residents.

Choosing a practice discipline can be one of the most difficult aspects of physician training. Exacerbating this challenge is the vast array of available specialties, timing of choices, the influence of student debt, as well as practice considerations such as lifestyle and physician resource needs. The rapidly changing face of medical practice and the limited amount of information and time available to consider options are also contributing factors.

Although the factors influencing choice of practice specialty are complex and not fully understood, having objective information and broad clinical experience early in the medical training process has been identified as critical to helping students and residents in making that choice (Canadian Medical Association, 2009). An undergraduate curriculum should ensure that students enjoy a broad range of clinical experiences and elective opportunities before they have to choose a specific discipline.

Advancing a core competency model for postgraduate training could identify competencies that would serve a generalist basis for professional streams. Furthermore, improved access to objective career information for students and residents, such as long-term physician resource plans, employment opportunities, characteristics of practice, population health profiles, and emerging developments (e.g. quality assurance, licensing) would greatly inform their specialty choice decisions.

### **Recommendation 7**

Recruitment and retention programs should develop comprehensive and flexible incentives that address the professional and personal needs of physicians.

Managing the problem of geographic distribution requires designing and implementing a systematic, coordinated set of initiatives aimed at the whole physician life cycle. Current attempts to improve distribution have concentrated largely on increasing physician supply at distributed education sites, developing non-urban training sites, and providing financial incentives. Great strides have been made in using the medical education system and financial incentives to attract physicians to practise in rural settings; however, the possibilities of using a greater variety of incentives have not been exhausted.

While financial incentives remain important, there is increasing evidence that non-financial factors are strong determinants of where physicians choose to locate their practice (Joint Standing Committee on Rural Issues, 2008). These include issues of work-life home-life balance and personal factors such as opportunities for spousal employment and education for children. Furthermore, the factors that influence the initial decision to move to a location may not be the same factors that affect the decision to stay for the long term.

Comprehensive and flexible recruitment and retention incentives should consider the following factors:

- **Work-life home-life balance:** Strategies to manage workload demands include flexible working arrangements, enhanced locum and on-call coverage, job-share opportunities, practice supports (e.g., overhead supplements, technology funding), parental leave benefits, and availability of part-time work.
- **Professional infrastructure and resources:** Limited availability of clinical and physical resources such as collegial support, appropriately staffed and resourced programs, up-to-date technology and procedure rooms can contribute to a physician deciding to leave a practice and can impede recruitment, especially if the stability and sustainability of programs and services are weakened.
- **Community involvement:** The community itself can play an important role in informing prospective physicians and their families of spousal employment prospects, educational opportunities, and cultural and lifestyle options. The involvement of local physicians is essential to assess whether potential recruits will adequately address the medical needs of the community.
- **Professional development:** Professional development supports can help practising physicians develop and maintain skills and attract new recruits. Strategies include bursaries for physicians to retrain, forgivable loans to medical students and trainees, residency training support, enhanced continuing medical education funding, and locum coverage to support educational and training leaves.
- **Critical mass of physicians:** It is important to strive and budget for a critical mass of physicians required to provide an acceptable level of services for a given geographic region, either in terms of the mix of specialties, or in the number of physicians in any given specialty. In rural and remote settings, physician critical mass requirements may be larger to address retention needs. Alternatively, these considerations may lead to the decision to not provide elevated secondary or tertiary specialty services in some areas.

### Recommendation 8

The Ministry of Health and the health authorities should ensure adequate resources and coordination for the development, implementation, and ongoing evaluation of physician recruitment and retention programs.

Successful implementation of physician recruitment and retention plans requires an adequately resourced infrastructure, active engagement with physicians and other relevant stakeholders, ongoing evaluation, and careful consideration of retention strategies.

Currently, the infrastructure at the health authority level for recruiting and retaining physicians varies in terms of coordination and resources, which in turn impacts their level of success in recruiting physicians. A properly resourced recruitment and retention infrastructure would help ensure that the department heads and medical directors, who are instrumental to the process, are adequately supported to develop physician resource plans. It would also help establish

a timely process for recruiting and providing legal and administrative clarity when needed. Potential recruits have been lost because they have had to wait too long for a letter of offer, or because they weren't provided with full understanding of expectations and resources available at the outset.

A collaborative process with internal and external stakeholders would help to create an environment that diminishes the need for health authorities to compete against each other for limited physician resources. Recruitment and retention strategies within and across regions could be aligned and integrated. At the same time, supporting clinical groups to recruit and retain physicians will help contribute to the long-term stability of physician resources.

Given the high level of competition for physician resources, more focus needs to be placed on retention strategies. Successful recruitment does not necessarily lead to retention success; thus, recruitment and retention strategies cannot be addressed in isolation and they require similar investments.

The challenges of recruiting and retaining physicians require ongoing evaluation to ensure that strategies are robust. For instance, annual performance reviews with defined performance targets (e.g., vacancy match rates, retention rates, physician workloads, professional satisfaction) would help determine whether the previous investment in infrastructure and recruitment and retention strategies was effective or if it needed to be adjusted to reflect changes in redesign initiatives, the environment, or population health needs.

### **Recommendation 9**

The Ministry of Health and the BCMA, in conjunction with health authorities, should develop strategies to support the retention of physicians who are nearing retirement.

To minimize the attrition of the baby boom generation of physicians in the coming years, policy approaches should focus on flexible working arrangements that support reduced workloads and provide enhanced financial incentives to remain in the workforce.

Strategies that support reduced workloads may include enhanced locum support, group practice, reduced call duties, and opportunities for part-time practice. Some physicians, for a variety of reasons, do not have adequate pensions and/or post-retirement income but may wish to continue working at reduced service levels. For example, centrally managed, region-wide locum pools can contract older (and younger) physicians to provide ongoing flexible coverage. This arrangement could provide older physicians with the opportunity to continue to work at reduced hours without having to make a definitive break from clinical work and risk the loss of income. For those physicians who want to make the transition out of clinical work, non clinical opportunities should be explored such as mentoring younger physicians, taking on teaching and/or research roles, and participating in medical administration.

Enhanced financial incentives that reward length of service may help retain older physicians. Strategies could include increasing the maximum amount of the length of service benefit, extending the practice timeframe eligible for the length of service benefit, restructuring pension plans to encourage more time in practice, and providing grants to cover overhead expenses.



# Conclusion

The challenges facing physician workforce planning are not new. However, the complexities of those challenges and the linkages between them throughout the medical career life cycle have not been fully acknowledged. Minimizing the cycles of physician surpluses and shortages will require careful consultation and coordination, with particular attention being paid to the expected impacts of policy throughout the medical career life cycle, the future health needs of the population, the changing physician demographics, and the individual choices that physicians make about what, how, and where they practice.

Addressing these challenges ultimately requires leadership and a commitment to change from all parties. The creation of a provincial multi-stakeholder physician resource planning committee, along with a province-wide planning framework and workforce database, will form a structured collaborative process to direct and clarify the physician workforce planning agenda and increase the capacity for physician workforce management. Because no one community, level of government, university, health care delivery organization, or professional organization can independently address the challenges in the physician resource sector, meaningful change requires partnerships to be formed between stakeholders, with the aim of finding cooperative solutions that reconcile, to the degree possible, competing professional and political ideologies.

Physician resource planning is not solely a technical exercise; it is also a value-driven one. The future need of physicians is influenced by the political and social choices that underlie the health care system, and how the future role of the physician is defined. There is no one ideal physician-to-population ratio or optimum number of physicians – other than the one that fully-informed British Columbians support. By adopting a more collaborative and comprehensive planning approach, both provincially and nationally, stakeholders can minimize unintended policy impacts, the mismatch between supply and needs, and costly duplication. This common goal should propel all stakeholders to work together thoughtfully and collaboratively to improve physician workforce planning, because what we prepare for now will be what we get later.

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**International Medical Graduate Program (IMG-BC)  
Challenges Facing Canadians Studying Abroad**

**BRIEFING DOCUMENT**

**Prepared by the Ministry of Health,  
Ministry of Advanced Education, and  
UBC's Faculty of Medicine**

December, 2011

## **Background**

Canadians Studying Abroad (CSAs) and their parents are concerned that resident students of British Columbia, who have left the province to study medicine abroad, face significant barriers in accessing and competing for postgraduate training positions in Canada. Numbers are also increasing--there are approximately 3,500 CSAs, double the number from five years ago. British Columbia has the second highest number of CSAs with as many as 500, while Ontario has approximately 1,500. Potentially 700 CSAs, 100 from British Columbia, graduate per year from medical schools abroad. In comparison, 256 medical doctors graduate from medical school in British Columbia each year. This is creating unique challenges not seen before in this province.

It is also clear that CSAs and their families are often not fully aware of challenges they may face once they complete their undergraduate medical education. It is the commitment of UBC and the Faculty of Medicine to work with Government and key stakeholders to improve communications. We want to ensure those considering medical education abroad are fully aware of the facts before making their decision, and that those studying abroad have the required information to strengthen success if planning to return to British Columbia for postgraduate medical education.

## **Postgraduate Medical Education (PGME) in Canada**

There were approximately 3,012 PGME positions in 2011 (CaRMS 2011). 2,528 positions (87%) were filled by Canadian medical school graduates (CMGs) requiring postgraduate medical education. International Medical Graduates filled the remaining 13% of total PGME positions.

Postgraduate Year 1 (PGY1) positions are accessed through the Canadian Resident Matching Service (CaRMS). This is a national matching process and is highly competitive. Applicants submit a rank order list of programs they would consider training in; programs also submit a rank order list of candidates that they would consider training. A second iteration of the match is conducted for vacancies in programs, unmatched candidates and those not eligible for the first iteration.

Provincial ministries of health determine eligibility of IMGs in the CaRMS match, with most provinces providing a separate pool of positions in the first iteration of the match. This is done in an effort to balance the interests of CMGs and IMGs, and to increase opportunities for IMG placement. PGME is also primarily funded through provincial ministries of health. In British Columbia, this encompasses all training costs, including salaries and benefits for residents as well as the costs of administration, teaching and distribution of medical education.

### **UBC's Postgraduate Medical Education Program**

- Residency training is distributed throughout British Columbia in one of two manners:
  - rotational distribution, in which residents based in programs in the traditional teaching hospitals relocate for a period of time to train at a community hospital
  - geographic distribution, where residents spend the majority of their training years at locations outside of the traditional teaching sites (e.g. Family Medicine in eleven locations around the province, and Psychiatry in Fraser, Victoria and Prince George)

Because of this distribution, physicians in clinical practice do much of the bedside teaching in the communities, unlike other more traditional programs across the country in which the majority of the clinical teaching occurs in traditional teaching hospitals.

- There is a commitment to provide at least as many PGY1 entry-level CaRMS positions as UBC MD undergraduate positions. In 2011, UBC made 256 available through CaRMS for CMGs and 19 dedicated positions for IMGs (13 in Family medicine and 6 in generalist specialties, as determined by the Ministry of Health).
- UBC has approximately 1,075 residents currently training across the Province, with 47% of these residents participating in generalist training (Family Medicine, Internal Medicine, Psychiatry and Paediatrics).
  - The aim is to maintain at least 60% of entry-level positions in family medicine and generalist specialties supporting primary healthcare, in order to align with Ministry of Health priorities
- By 2015, with graduation of the fully expanded UBC undergraduate class, the plan is to increase CMG CaRMS PGY 1 entry positions to 288. Expansion will need to be carefully coordinated to assure limited teaching resources are not overwhelmed, and the quality of PGME at UBC is maintained.

### IMG-BC Program:

- UBC has been training IMGs since the early 1990s. When the stepped expansion for PGME began in 2003, expansion plans to the IMG-BC Program were not included. Work was underway at the national level to identify next steps for enhanced assessment of IMGs and their increased integration into the workforce. Next steps were embedded in the *First Ministers' Health Accord, A 10-year Plan to Strengthen Health Care (2004)*, and *A Framework for Collaborative Pan-Canadian Health Human Resources Planning (2004/05)*.
- In 2005, the Faculty and the Ministry of Health agreed to triple the number of entry-level IMG positions to 18, with the majority of the positions in Family medicine. The Faculty also agreed to review the number of positions at a later date, when undergraduate expansions were nearer completion and medical clinical teaching capacity would be better understood.
- In 2008, the Faculty and Ministry of Health reviewed the IMG-BC Program with a view to accommodating the interests of Canadians Studying Abroad (CSAs). Several options were identified, but later dropped due to Human Rights concerns. It was determined that IMGs and CSAs - a subset of IMGs - must be treated similarly, to avoid Canadian Charter of Rights or BC Human Rights challenges.
- IMG specific positions require a Return of Service of 2 years for Family medicine and 3 years for Royal College specialties, to an identified area of need in the province. IMGs can match to vacant CMG residency programs through the second iteration of the CaRMS match. Approximately 10 IMGs per year match to UBC through this route. There is no return of service for IMGs matched to regular CMG CaRMS positions in the second iteration of the match.
- In response to a 2010 BC Government Throne Speech commitment, the Ministry of Health, with the support of the UBC Faculty of Medicine agreed to expand and distribute the *IMG-BC Program (see Table 1)*
  - Over the next several years a total of 40 new entry-level positions are expected to be added in *family medicine* (a continued priority for the Ministry of Health)
  - At full implementation in 2015/16, 58 entry-level positions or 134 IMGs are expected to be in training at any one time (larger than each of the distributed medical programs in BC which have 32 first-year students or 128 undergraduate MD students in training at any one time). This will increase the postgrad / undergrad ratio to 1.2/1.0. Training will be distributed across the health authorities

While these increases will be welcome news for IMGs wishing to access postgraduate education in British Columbia, applicants will need to consider provincial requirements when applying to CaRMS. (note: only 21% of CSAs rated family medicine as their first choice in 2010, compared to 33.5% of CMGs) (*CaRMS Survey 2010*)

**Table 1—“Planned Expansion” of the IMG-BC Program**

**Entry Level PGME Positions Funded by BC’s Ministry of Health\***

		2011/12		2012/13		2013/14		2014/15		2015/16		2016/17	
		Incr	Total	Incr	Total	Incr	Total	Incr	Total	Incr	Total	Incr	Total
IMG	Family Medicine	8	20	8	28	8	36	8	44	8	52	0	52
	General Specialties	0	6	0	6	0	6	0	6	0	6	0	6
	<b>Total (IMG)</b>	<b>8</b>	<b>26</b>	<b>8</b>	<b>34</b>	<b>8</b>	<b>42</b>	<b>8</b>	<b>50</b>	<b>8</b>	<b>58</b>	<b>0</b>	<b>58</b>
<b>Location of Family Medicine IMG Expansion (Health Authority)</b>		<b>Vancouver, Fraser</b>		<b>Fraser, Island</b>		<b>Island, Fraser</b>		<b>Interior, Fraser</b>		<b>Northern, Interior, Fraser</b>		<b>Steady State</b>	

\*Note: This table represents projected positions expected to be posted on the CaRMS website based on a funding formula agreed upon by the Ministry of Health. Positions will be filled in the following academic year, once the CaRMS application and selection processes have been completed.

## Questions Frequently Asked:

### Question: What is a CSA?

A CSA is a Canadian who chooses to study medicine in a medical school outside of Canada and the US. Foreign-trained physicians, or international medical graduates (IMGs), are individuals who hold a medical degree from schools not accredited by the Canadian and American accreditation committees. CSAs who complete their undergraduate medical education are IMGs. Foreign-trained physicians who immigrate to Canada are also IMGs. Often immigrant IMGs have graduated from the same schools that CSAs are graduating from.

### Question: Why are there so many Canadians Studying Abroad?

It is not easy to get into medical school in Canada. Four times as many applicants apply than are accepted. While some students have entered into their international medical school directly from high school, most CSAs have not applied to Canadian medical schools as many times (1.76 times) as the successful Canadian students (CMGs) studying in Canada who apply 2.95 times prior to being admitted. (CaRMS Survey, 2010)

Canadian students who are unsuccessful in being admitted to a Canadian medical school and decide to attend a foreign medical school, do so largely because they believe there is a shortage of physicians in Canada, and there will be opportunities for them to return to Canada to practice medicine. More medical schools abroad are opening enrolment to international students each year. The majority of programs target North American students who are prepared to pay the high tuition fees for the opportunity to become physicians.

**Question: If CSAs choose to go abroad for their undergraduate medical education, why don't they do their residency abroad as well?**

Medical schools abroad welcome Canadians and other foreigners into their medical schools because they pay a higher tuition for their medical education, which in turn subsidizes the local students' education. Many of these countries are experiencing a physician shortage and their medical schools have limited clinical capacity to teach, so any available residency positions are often offered to local medical school graduates, rather than foreigners including Canadians.

**Question: Do CSAs from other provinces have the same challenges when seeking a residency in their home province?**

Yes. However, the numbers of IMGs and residency positions available to IMGs vary from province to province.

**Question: Shouldn't we be giving CSAs preferential treatment over naturalized IMGs; after all, they grew up here?**

Given that the greatest barrier for IMGs/CSAs to access postgraduate training positions in Canada is the fact that international medical school education and training is not necessarily comparable or equivalent to Canadian medical school education, there are no measures that can be introduced to privilege or otherwise treat differently CSAs who apply for postgraduate training positions in Canada or BC. CSAs must be treated in the same manner as all other IMGs. To do otherwise would breach human rights and Canadian Charter legislation.

**Question: What steps are being taken to improve access for IMGs, including CSAs?**

In response to a commitment to improve access for Canadians Studying Abroad (2008 and 2010 Throne Speech), the following steps have been taken:

- o 40 new entry-level positions will be added to the IMG-BC Program. At full implementation in 2015/16, 58 entry-level positions or 134 IMGs are expected to be in training at any one time. The program will be larger than a distributed medical program (which has 32 first-year students or 128 undergraduate MD students in training at any one time)
- o utilizing the Medical Council of Canada's national assessment tool
- o removing the requirement for success in the Medical Council of Canada's Qualifying Exam part 1 prior to accessing CaRMS

**Question: Why are IMGs not eligible to compete for all positions in the first iteration of CaRMS?**

Canadians apply for entry into undergraduate MD education within Canadian Medical Schools in a highly competitive process. Canadian Medical Graduates (CMGs) also compete for residency positions and expect to be able to complete medical education, and become eligible to be licensed to practice medicine in Canada. The common practice therefore is to ensure that the national number of residency positions in the first iteration of the CaRMS will be equivalent to the number of students graduating from medical schools across Canada.

All Canadian medical undergraduate programs are rigorously accredited through the North American Accreditation process. Canadian graduates have demonstrated their competence to be eligible to enter the CaRMS match. Equally so, all Canadian residency programs are rigorously accredited. Medical schools outside of Canada and the United States are not measured against the same accreditation standards; therefore, those applicants that did not complete their undergraduate MD education in Canada, must demonstrate their competence to be eligible to compete for residency places in Canada.

**Question: Are CSAs “competitive” in the selection process? If not, why?**

There are approximately 80 medical schools around the world where Canadians are trained. The level of training varies and not all medical schools attain a standard of training equivalent to, or comparable to, that of Canadian medical schools. Some findings indicate that CSAs are not performing competitively in the national Canadian OSCE when compared with either CMGs or other IMGs. This is likely attributable to the lack of clinical experience in their undergraduate training.

Because of reasons such as timing of graduation, many CSAs choose to not take the National Assessment Collaboration (NAC) OSCE or the IMG-BC Program’s Clinical Assessment and participate only in the 2nd iteration of CaRMS when the CMG and IMG streams are blended.

**Question: Why don’t we open up more spots for IMGs and CSAs? Isn’t there a shortage of physicians across the Province that these individuals could be addressing?**

The ministry of health, not the medical schools, determines the number of postgraduate training positions funded for IMGs. There is a convention, which guides our planning within PGME (which the Conference of Deputy Ministers of Health approved in the 1990s), that there should be 1.2 of a postgraduate entry-level position for every MD undergraduate first-year seat. The Province is aiming to have the additional 20% of residency positions in BC primarily allocated for IMGs—the .2 in the 1.2.

Expansion must be carefully coordinated to assure limited teaching resources are not overwhelmed, undergraduate medical education is not compromised, the quality of PGME at UBC is maintained, and accreditation standards of the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons are met. The Accreditation process both at undergraduate and postgraduate levels is rigorous and all increases in residency positions, or the development of new sites, are subject to scrutiny by external assessors. This includes assessment of the educational environment, the training of preceptors and the infrastructure resources required to deliver the program. Careful planning, adequate resources and time to prepare new sites and faculty are requirements of formal approval processes.

**Question: Do we have a national standard for assessing IMGs wishing to access PGME in Canada?**

The National OSCE provides a standard assessment for IMGs that all jurisdictions recognize.

**Question: Communications regarding the challenges facing CSAs needs to be addressed. What is being done?**

Information must be made available to K-12 students regarding postgraduate residency training requirements and limitations if they are considering medical undergraduate education abroad. Information on postgraduate residency requirements and limitations should also be made available to students who are not successful in applying to UBC’s medical undergraduate program.

## **What do Canadians Studying Abroad Need to Know to Return to British Columbia?**

### **Question: What is the IMG-BC Program?**

The British Columbia IMG Program (IMG-BC) is funded by the Provincial Government to enable medical doctors who have trained in medical schools outside Canada and the United States to compete for and obtain residency positions that will lead to licensure for practice. The program is offered to *British Columbians who are Canadian citizens, Permanent Residents, Landed Immigrants or those that have Refugee Status.*

The IMG-BC Program expects candidates to have passed the MCCEE, a standard Canadian medical entry-level examination. Further evaluation includes a 16 station OSCE followed by an optional 12-week clinical assessment offered to the top 35 OSCE candidates.

### **Question: How important is the 12-week clinical assessment?**

In order to apply for IMG residency positions through CaRMS, the 12-week clinical assessment is not required. However, candidates need to understand that in all disciplines the Residency Program Director and the Residency Training Committee are responsible for the selection of candidates, and are looking for those that have demonstrated good clinical skills.

For example, in some specialty disciplines a short period of clinical assessment is required, while in others there is no requirement. In others, such as the Family Medicine Program, experience with the IMG Program has demonstrated that candidates who have undertaken the 12-week clinical assessment are much more likely to be successful in completing the residency program. Due to this experience and the fact that the field is very competitive, applicants who have not undertaken the clinical assessment may not be competitive enough to be selected.

It is strongly recommended that all candidates check the selection criteria of programs they are considering applying for, as the selection processes are constantly under review.

### **Question: What is the Medical Council of Canada (MCC)?**

The MCC is the body that grants a qualification in medicine known as the *Licentiate of the Medical Council of Canada (LMCC)* to graduate physicians who have satisfied the eligibility requirements and passed the Medical Council of Canada Qualifying Examination Parts I and II.

### **Question: What Is The Medical Council Of Canada Evaluation Examination?**

The MCCEE is a general assessment of the candidate's basic medical knowledge in the practice of medicine. It is designed to assess the skills and knowledge required at the level of a new medical graduate who is about to enter their first year of postgraduate training. A four-hour computer-based examination is offered at more than 500 centers in 73 countries worldwide. International medical graduates and international medical students in their final clinical year must take the MCCEE as a prerequisite for eligibility to the MCC Qualifying Examinations. The MCCEE is required for application to the IMG-BC Assessment Program.

### **Question: What is the OSCE?**

Due to differences in how residency programs around the world are structured, an increasing number of IMGs intending to practice medicine in Canada require assessment and additional PGME training. The National Assessment Collaboration, led by the Medical Council of Canada, introduced a standardized objective structured clinical exam (OSCE) for IMGs requiring completion of PGME in Canada, in order to obtain licensure. The OSCE

utilizes standardized patient encounters to assess clinical skills, medical knowledge, and communication skills. Five provinces including BC offer the NAC OSCE, the only exam result in addition to the Medical Council's evaluating exam, required *prior* to competing for a residency position in CaRMS.

The number of applicants varies each year (approximately 150). Twice as many OSCE places are offered (n=70) than clinical assessments; the top 35 OSCE candidates have the option to proceed to the 12-week clinical assessment. All 70 IMGs can use their OSCE results in their CaRMS applications. IMGs can take the OSCE a maximum of three times and the clinical assessment twice, therefore they should be strategic in their application process.

**Question: What Is the Canadian Resident Matching Service (CaRMS)?**

CaRMS is a not-for-profit organization that provides medical students with an electronic application service and a computer match for entry into postgraduate medical training throughout Canada. CaRMS is the way for applicants to decide where to train and for program directors to decide which applicants they wish to enroll in postgraduate medical training.

**Question: What is the definition of BC residency? How is permanent residence assessed for a student who is out of the country?**

Applicants to the IMG-BC Program must have lived in BC for one year prior to application. A BC resident who is studying medicine internationally is not bound by these criteria, but they must have lived in BC for one year prior to studying medicine abroad.

**Question: Do I have to do a Return of Service if I am internationally trained and matched in CaRMS in British Columbia?**

If you match in the first iteration to one of the IMG designated positions, you are required to sign a Return of Service Contract whereby you agree to return service in an identified community of need in BC in exchange for a Ministry funded residency position. The Return of Service for Family Medicine training is 2 years, for Royal College programs, it is 3 years. If, you match to a second iteration position, a Return of Service is only required if that position is a dedicated IMG position that was not filled in first iteration.

**Question: Why are CSAs required to sign a Return of Service requirement, given that they have already self-funded the cost of their undergraduate medical education?**

The ROS has nothing to do with UGME. The Return of Service is an exchange of service for a Ministry funded residency position that has been placed in CaRMS over and above the 1:1 ratio of UGME to PGME positions. The additional residency positions are identified in the ratio 1:1.2—the .2 or 20% of additional positions include IMG positions.

**Question: Are there any incentives I can apply for?**

Yes. Incentive programs exist for residents that plan to practice in rural communities. Please visit <http://www.health.gov.bc.ca/pcb/rural.html> to review the handbook, *Rural Programs: A Guide for Rural Physician Programs in British Columbia* for an overview of programs available to rural physicians in BC.

**Question: How many residency positions are available to CSAs in BC?**

In BC, CSAs can apply for all IMG designated positions in the first iteration of CaRMS and all unfilled CaRMS positions, including CMG positions, in the second iteration. In the first iteration of the CaRMS match, there are 20 Family medicine positions and 6 specialty positions planned for 2012. There is a planned expansion that, on completion in 2015/16, will have 58 CaRMS entry-level positions for IMGs.



**Question: What can I do to enhance my competitiveness?**

The Residency Training Committee of each Residency Program sets selection criteria and selects applicants for residency positions. Program specific information is usually available on the Program and/or CaRMS website. Some specialty programs may require a period of clinical assessment in their field. Completion of the IMG-BC Clinical Assessment is considered important for applicants to the family medicine program. IMGs should also consider the following:

- Reference letters particularly from clinical experiences;
- Solid training records, transcripts and MCCEE results are highly preferred;
- Demonstrated clinical competence in the National OSCE exam;
- Undertaking Canadian clinical experiences that demonstrate clinical competency, such as the BC IMG Assessment program;
- Obtaining clinical clerkship rotations in Canada

## Appendix A

### IMG-BC PROGRAM MILESTONES\*

November 1, 2011	On-line registration for IMG program is available
January 1, 2012	Application Phase I Deadline
February 1, 2012	Application Phase II Deadline
February 2, 2012	File Review Begins
February 15, 2012	OSCE Seats are granted – successful candidates notified
March 2012 (TBA)	NAC OSCE Orientation
March 24, 2012	NAC OSCE Examination Phase III
May 2012 (TBA)	Orientation Week and Clinical Assessment Period begins

\* <http://www.imgbc.med.ubc.ca/Home.htm>

## Appendix B

### Planned Expansion of the PGME Program

#### Entry Level PGME Positions Funded by BC's Ministry of Health\*

		2011/12		2012/13		2013/14		2014/15		2015/16		2016/17	
		Incr.	Total	Incr.	Total	Incr.	Total	Incr.	Total	Incr.	Total	Incr.	Total
IMG	Family Medicine	8	20	8	28	8	36	8	44	8	52	0	52
	General Specialties	0	6	0	6	0	6	0	6	0	6	0	6
	<b>Total (IMG)</b>	<b>8</b>	<b>26</b>	<b>8</b>	<b>34</b>	<b>8</b>	<b>42</b>	<b>8</b>	<b>50</b>	<b>8</b>	<b>58</b>	<b>0</b>	<b>58</b>
CMG	Family Medicine	0	106	0	106	0	106	8	114	8	122	0	122
	RCPS	0	150	0	150	6	156	4	160	6	166	0	166
	<b>Total (CMG)</b>	<b>0</b>	<b>256</b>	<b>0</b>	<b>256</b>	<b>6</b>	<b>262</b>	<b>12</b>	<b>274</b>	<b>14</b>	<b>288</b>	<b>0</b>	<b>288</b>
<b>Total</b>		<b>18</b>	<b>292</b>	<b>17</b>	<b>310</b>	<b>20</b>	<b>318</b>	<b>20</b>	<b>338</b>	<b>22</b>	<b>346</b>	<b>0</b>	<b>346</b>
<b>Location of Family Medicine IMG Expansion (Health Authority)</b>		<b>Vancouver, Fraser</b>		<b>Fraser, Island</b>		<b>Island, Fraser</b>		<b>Interior, Fraser</b>		<b>Northern, Interior, Fraser</b>		<b>Steady State</b>	

\* Note: This table represents projected positions expected to be posted on the CaRMS website based on a funding formula agreed upon by the Ministry of Health. Positions will be filled in the following academic year, once the CaRMS application and selection processes have been completed.

## Appendix C

### *Key Findings from CaRMS Canadians Studying Abroad Survey (2010) \**

- In July 2010, the Chief Executive Officer of the Canadian Resident Matching Service presented the 2010 survey results to the BC Ministry of Health Services/ UBC Faculty of Medicine *Postgraduate Planning Task Force*.
  
- Some key findings about CSASS from the 2010 survey are:
  - More are studying abroad; their number is estimated to have doubled in 5 years to over 3,000.
  - More are studying in different places. They study in the Caribbean, Australia, Ireland, Poland, Israel, Bahrain, Czech Republic, and the United Kingdom.
    - There is wide variation in the quality of undergraduate medical education among overseas medical schools, even among schools within the same country.
  - The top 10 medical schools they attend are:
    - St. Georges University, Caribbean (22.2%)
    - Saba University School of Medicine, Caribbean (14.8%)
    - University of Queensland, Australia (11.1%)
    - Royal College of Surgeons, Ireland (10.1%)
    - University of Sidney (5%)
    - Jagiellonian University Medical College, Poland (4.9%)
    - Ross University, Caribbean (4.6%)
    - Trinity College Dublin, Ireland (4.5%)
    - University College Dublin, Ireland (4.5%)
    - University College Cork, Ireland (3.1%).
  - Many believe there is a physician shortage, and most want to return to Canada to practice.
  - Either 62% did not apply to medical schools in Canada, or they applied only once.
  - 57.2% are from Ontario, 18.9% from BC, and 10.7% from Alberta.
  - When they graduate with a MD, 74% want to return to Canada to complete their postgraduate medical education; only 10% do not plan to return for any part of their residency.
  - only 21% of CSAs rate family medicine as their first choice for postgraduate training whereas the percentage is 33% for CMGs and 50% overall for IMGs

\* [http://www.CaRMS.ca/pdfs/2010\\_CSA\\_Report/CaRMS\\_2010\\_CSA\\_Report.pdf](http://www.CaRMS.ca/pdfs/2010_CSA_Report/CaRMS_2010_CSA_Report.pdf)

## Too many Canadians studying medicine overseas

More medical schools opening but no residency positions

By Mary G. Sheppard, CBC News

Posted: Feb 22, 2011 2:16 PM ET

Last Updated: Feb 23, 2011 12:06 PM ET

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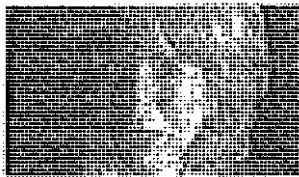
The number of Canadians studying medicine outside of Canada has more than doubled in the last five years and a number of them may never get the opportunity to continue their training and to practice at home.

In its first survey since 2006, the Canadian Resident Matching Service (CaRMS) identified approximately 80 schools in almost 30 countries as having Canadian students enrolled in medicine. CaRMS is the not-for-profit organization that matches medical graduates with a post-graduate training position or residency in Canada. Without such training the candidates cannot practice as doctors in the Canadian healthcare system.

According to this latest CaRMS survey, 90 per cent of the students who go abroad would like to return to Canada. But it won't be easy for them.

Residents have received medical degrees and practice medicine under the supervision of licensed physicians, usually in a hospital or clinic.

It's a question of basic math. Sandra Banner, the executive director and CEO of CaRMS, says, "This year I have 628 Canadians studying abroad in this match. The number of positions available for entry-level training is going to be around 400 positions. In addition we have 1,800 immigrant medical students who want to come to Canada. There definitely will be Canadian students who will not get back into Canada."



*Banner, the executive director and CEO of CaRMS, says she was surprised by the growth in the number of Canadians studying medicine abroad. (CaRMS/Sandra Banner)*

There are now about 3,500 Canadians studying medicine overseas, which compares to about 10,500 in Canada.

The survey found that every year additional schools are offering international students the opportunity to study medicine. The majority of these programs target North American students. Banner says that foreign medical schools have become more aggressive about recruiting Canadian students.

CaRMS noted that Canadians mostly go to the Caribbean to study; Ireland comes in second as a place to get a medical degree. But there are also a growing number of schools in Poland, Australia and the Middle East.

Recently, St. Andrews University in Scotland launched a program that allows students to complete a medical undergraduate degree and then be automatically admitted into medical school at the University of Edinburgh, one of the most prestigious in the world. The program outline says Canadian and American students will get "dedicated assistance with preparation for" exams and residency matches at home. The program costs well over \$250K in tuition alone.

Most international students say their fees are paid for by a combination of family support and bank loans.

### Average annual tuition fees

- Ireland \$49,800.
- Poland \$14,191.
- Caribbean \$25,608.
- Australia \$42,334.
- Middle East \$16,336.
- Canada \$12,214.

## Too many Canadians studying medicine overseas - Health - CBC News

Source: CaRMS

Some students go to medical school abroad directly out of high school and that number is on the rise. But most go after finishing an undergraduate degree in Canada and have not applied to Canadian medical schools as many times as a successful applicant in Canada.

The survey suggested these students opt to study overseas because they have decided they would not be accepted into medical school in Canada, or would rather not wait several years through repeated attempts. It is not uncommon in Canada to apply to medical school two or three times before being admitted. The acceptance rate for first-time applicants in Canada is under 30 per cent. In the U.S. the success rate is 44 per cent.

The majority of Canadians studying medicine abroad are male, slightly older, single and with more post-secondary education than their medical student counterparts in Canada. And, more of them have a medical doctor as a parent. They mostly are residents of British Columbia and Ontario which have the lowest acceptance rates for medical school applicants.

### Median student debt by country

- Ireland \$200K.
- Poland 70K.
- Caribbean \$175K.
- Australia \$200K.
- Middle East \$90K.

Source: CaRMS

The number of residency positions is decided by each province. More than half of residency positions for international students are in Ontario. International medical graduates are a combination of Canadians studying abroad and immigrants wanting to practice in Canada.

HealthForceOntario Marketing and Recruitment Agency helps doctors from outside Canada understand the Ontario medical system. Executive director, Bradley Sinclair, says Ontario has been increasing the number of residency positions for international medical graduates since 2002 and is very proud of having more than 200 positions available.

Sinclair says there are other avenues open to the graduates who do not get a residency placement in Canada. "They can stay where they are and do post-graduate work or they can go to the U.S. where there are more opportunities and then come back to Canada as fully qualified doctors."

Sandra Banner did point out however that many countries do not offer residency programs for international students. St. Andrews, for example, says very clearly in its brochure that students "are not eligible for inclusion in the clinical postgraduate training program in the UK." The survey noted the schools that recruit Canadian students in Ireland, Poland, other European countries and Australia have little or no postgraduate opportunities available for international students.

The increase in international students comes at a time when a number of communities in Canada report they are under-served. Some of these communities have offered cash incentives to try to attract doctors.

## CaRMS Survey: Canadian Students Enrolled In Medical Schools Abroad Ballons |

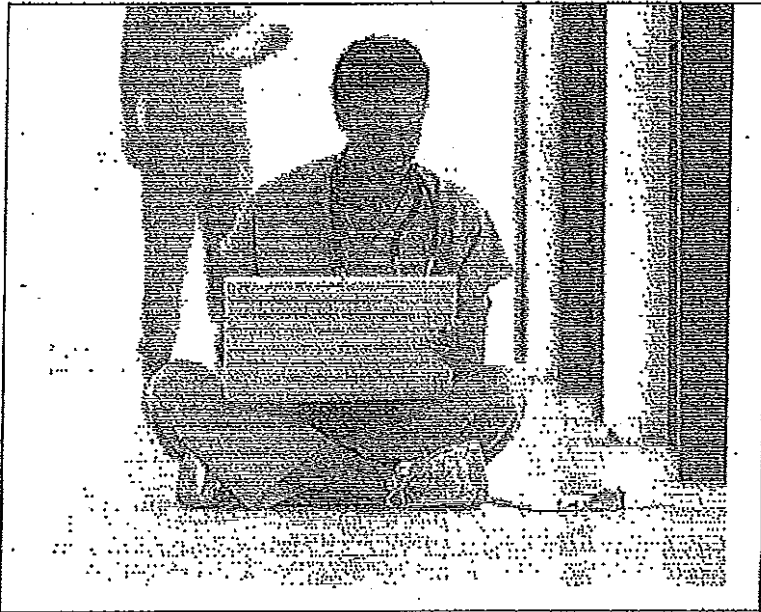
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## CaRMS Survey: Canadian Students Enrolled In Medical Schools Abroad Ballons

Posted under : [International Doctor Shortage](#), [International Medical Graduates](#)



CaRMS – [The Canadian Resident Matching Service](#) has released a comprehensive report on Canadians studying medicine outside Canada. And the findings are not good, particularly for foreign trained physicians who are facing tough competition at home.

The study estimates that there are approximately 3,500 Canadian students enrolled in medical schools abroad, all sharing a desire to return home to Canada to practice medicine. This figure reflects an almost 100% increase since 2006 when CaRMS published its last study. At that time, approximately 500 students were thought to be studying medicine abroad.

This could make it even more difficult for IMDs (international medical doctors) to get a coveted residency position in Canada. There is still no distinction made between IMDs and IMGs (international medical grads) when it comes to the CaRMS application process. Some 7,500 IMDs are registered in Ontario alone.

It's expected that the new foreign medical grads will account for an additional 700 applicants. That's about

## CaRMS Survey: Canadian Students Enrolled In Medical Schools Abroad Ballons |

one-third of the total number of Canadians studying medicine in Canadian schools.

Some of the key findings of the study:

- \* Students are spread around the globe and are enrolled in 80 different medical schools, in 30 countries. The most popular locations for Canadians are Ireland, Australia, and the Caribbean.

- \* Twenty-one percent of the students are children of Canadian physicians who did not get accepted into a medical school in Canada. They have a higher median age, are older (73% are 26 to 30 years of age), and have more education than medical students studying in Canada. The largest number of students come from Ontario and British Columbia.

- \* The cost of studying outside Canada is more than double the cost of studying at home. The median debt for a medical student studying abroad is \$160,000 (CAD) compared to \$71,000 (CAD) for a Canadian medical student.

- \* Graduates of medical schools in Australia and Ireland were more successful than grads from the Caribbean in arranging Canadian clerk ships, clinical rotations, and post-graduate training opportunities in Canada.

- \* Ninety percent of respondents expressed frustration over the perceived barriers to getting medical residencies in Canada once their studies were over. Caribbean students were the most frustrated.

- \* While Canada's biggest doctor shortage is in family medicine, only 21 percent of the students who responded to the survey indicated that they would pursue a career in the field. And since many of them intend to be specialists most likely in urban settings, it does little to solve the doctor shortage in Canada.

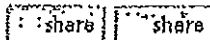
Many of the stats release by CaRMS are backed-up by anecdotal evidence in an article written by Josh Dehaas for Macleans Magazine entitled "Want degree, will travel: Getting into into med school abroad may be easier, but it's tough to come back".

The option for many IMGs — as it is with IMDs — is to apply for a residency in the United States. As Ah Yin Eng, the head of the Association of International Physicians of Canada and a veteran GP in Pembroke, Ont., says in the article: "Governments complain of a medical brain drain but with IMGs, year after year, we lose them to the States."

So while the Ontario Government brags about creating more spaces for foreign trained physicians, this new report will be a sobering reminder that medicine is a tough dream to follow — especially in Canada.

CaRMS is a not-for-profit organization that works in close cooperation with the medical education community, medical schools and residents/students, to provide an electronic application service and a computer match for entry into postgraduate medical training throughout Canada. The survey was distributed to 32 international medical schools with 1,082 students responding.

The study can be downloaded [here](#) or from the CaRMS Website.



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## Too Many Canadians For Available Medical Residency Positions

Posted under : [International Medical Graduates](#)



Sandra Banner, the executive director and CEO of the Canadian Resident Matching Service (CaRMS) provides a more detailed picture of Canadians studying medicine outside of Canada in a [recent interview with CBC News](#).

The interview follows upon the release of a [new study](#) conducted by CaRMS, which identified approximately 80 schools in almost 30 countries as having Canadian students enrolled in medicine. The number of Canadians studying medicine outside of Canada has more than doubled in the last five years leading to fears of another "brain drain" as more graduates are forced to look outside of Canada for a residency position.

The CaRMS study noted that Canadians mostly go to the Caribbean to study. Average annual tuition fees range from \$14,191.00 in Poland to \$49,800 in Ireland, the second most popular place to go for a medical degree. Recently, St. Andrews University in Scotland launched a program that allows students to complete a medical undergraduate degree and then be automatically admitted into medical school at the University of Edinburgh, one of the most prestigious in the world. The program costs over \$250K in tuition alone.

Most international students say their fees are paid for by a combination of family support and bank loans.

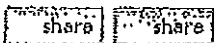
## Too Many Candians For Available Residency Positions |

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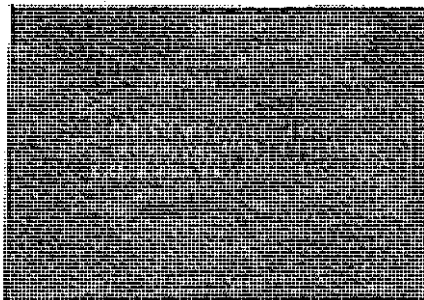
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Many of the Canadians studying abroad may never get the opportunity to continue their training and to practice at home, says Sandra Banner. "This year I have 628 Canadians studying abroad in this match. The number of positions available for entry-level training is going to be around 400 positions. In addition we have 1,800 immigrant medical students who want to come to Canada. There definitely will be Canadian students who will not get back into Canada."

CaRMS is the not-for-profit organization that matches medical graduates with a post-graduate training position or residency in Canada. Without such training the candidates cannot practice as doctors in the Canadian healthcare system.



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