

“Canadians Studying Medicine Abroad”

October 2015

Speakers –

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2015 R-1 Match - First iteration
Table 6: Applicant pool by school of graduation

School of Graduation	2015 Graduates	Prior Year Graduates ¹	Registrants in CaRMS	Inactive Registrants	Withdrawn Registrants	Active Registrants	Final Participation
Memorial University of Newfoundland	62	3	65	2	1	62	61
Dalhousie University	120	6	122	0	1	121	121
Université Laval	204	0	203	0	1	202	201
Université de Sherbrooke	201	9	207	1	3	203	203
Université de Montréal	285	11	293	1	1	291	291
McGill University	187	7	192	2	1	189	186
University of Ottawa	162	6	167	1	0	166	166
Queen's University	99	1	100	0	1	99	99
Northern Ontario School of Medicine	64	0	64	0	0	64	64
University of Toronto	254	10	262	0	1	261	261
McMaster University	206	2	204	0	1	203	203
Western University	168	4	170	1	0	169	169
University of Manitoba	108	4	112	1	0	111	111
University of Saskatchewan	84	8	91	0	1	90	90
University of Alberta	171	1	169	1	2	166	166
University of Calgary	173	3	176	1	0	175	175
University of British Columbia	293	8	299	0	4	295	295
United States medical schools	73	5	73	1	21	51	40
International medical schools	314	2096	2398	120	116	2162	1796
TOTAL	3228	2184	5367	132	155	5080	4698

Keywords: School of graduation, prior, registrant, inactive, withdrawn, active, final participation, first iteration, 2015

Note 1: Includes graduates from all years prior to 2015



2015 R-1 Match - First iteration

Table 2: Summary of match results by school of graduation

School of Graduation	Matched			Unmatched			Final Participation		
	2015 Graduates	Prior Year Graduates ¹	Total	2015 Graduates	Prior Year Graduates ¹	Total	2015 Graduates	Prior Year Graduates ¹	Total
Memorial University of Newfoundland	59	0	59	2	0	2	61	0	61
Dalhousie University	110	5	115	5	1	6	115	6	121
Université Laval	194	0	194	7	0	7	201	0	201
Université de Sherbrooke	186	6	192	9	2	11	195	8	203
Université de Montréal	272	9	281	9	1	10	281	10	291
McGill University	173	5	178	7	1	8	180	6	186
University of Ottawa	156	5	161	5	0	5	161	5	166
Queen's University	96	0	96	2	1	3	98	1	99
Northern Ontario School of Medicine	63	0	63	1	0	1	64	0	64
University of Toronto	240	9	249	11	1	12	251	10	261
McMaster University	186	1	187	15	1	16	201	2	203
Western University	155	1	156	11	2	13	166	3	169
University of Manitoba	104	1	105	4	2	6	108	3	111
University of Saskatchewan	81	6	87	2	1	3	83	7	90
University of Alberta	161	0	161	5	0	5	166	0	166
University of Calgary	163	2	165	9	1	10	172	3	175
University of British Columbia	274	6	280	14	1	15	288	7	295
United States medical schools	25	0	25	12	3	15	37	3	40
International medical schools	90	261	351	148	1297	1445	238	1558	1796
TOTAL	2788	317	3105	278	1315	1593	3066	1632	4698

Keywords: Match summary, final participants, matched, unmatched, school of graduation, CMG, IMG, 2015

Note 1: Includes graduates from all years prior to 2015.

School of Residency	Positions Available	Positions Filled	Positions Unfilled
Memorial University of Newfoundland	78	72	6
Dalhousie University	130	124	6
Université Laval	228	179	49
Université de Sherbrooke	198	179	19
Université de Montréal	302	282	20
McGill University	189	186	3
University of Ottawa	202	183	19
Queen's University	133	130	3
Northern Ontario School of Medicine	55	46	9
University of Toronto	417	417	0
McMaster University	217	208	9
Western University	187	173	14
University of Manitoba	140	128	12
University of Saskatchewan	113	98	15
University of Alberta	192	181	11
University of Calgary	201	190	11
University of British Columbia	339	329	10
TOTAL	3321	3105	216

Keywords: Positions, quota, school of residency, 2015

Discipline	Number of Designated Positions Available	Number of IMGs Matched
Anatomical Pathology	3	3
Anesthesiology	9	9
Cardiac Surgery	1	1
Dermatology	2	1
Diagnostic Radiology	7	8
Emergency Medicine	6	6
Family Medicine	174	185
General Pathology	1	1
General Surgery	5	5
Hematological Pathology	1	1
Internal Medicine	48	56
Laboratory Medicine	3	3
Medical Genetics	1	1
Neurology	6	6
Neurology - Pediatric	1	1
Neurosurgery	2	0
Nuclear Medicine	N/A	1
Obstetrics & Gynecology	3	4
Ophthalmology	1	1
Orthopedic Surgery	5	6
Pediatrics	18	19
Physical Medicine & Rehabilitation	2	2
Plastic Surgery	1	0
Psychiatry	24	28
Public Health & Preventive Medicine	3	2
Radiation Oncology	0	N/A
Urology	2	1
Vascular Surgery	0	N/A
TOTAL	329¹	351²

Keywords: Match results, discipline, IMG, first iteration, quota, designated positions, 2015

Note 1: IMG designated quota does not take into account opportunities available in Quebec

Note 2: Number of IMGs matched includes IMGs matched to Quebec which have positions open to both international and Canadian medical graduates.

Table 14: Dedicated quota offered to IMG applicants by discipline

Discipline	Dedicated IMG Positions	% of Total Dedicated Positions Offered	Quota Filled (#)	Quota Vacant (#)
Anatomical Pathology	3	0.9%	2	1
Anesthesiology	9	2.7%	8	1
Cardiac Surgery	1	0.3%	1	0
Dermatology	2	0.6%	1	1
Diagnostic Radiology	8	2.1%	8	0
Emergency Medicine	6	1.8%	6	0
Family Medicine	182	52.9%	167	15
General Pathology	1	0.3%	1	0
General Surgery	5	1.5%	5	0
Hematological Pathology	1	0.3%	1	0
Internal Medicine	49	14.6%	49	0
Laboratory Medicine	3	0.9%	3	0
Medical Genetics	1	0.3%	1	0
Neurology	6	1.8%	6	0
Neurology - Pediatric	1	0.3%	1	0
Neurosurgery	1	0.6%	0	1
Obstetrics & Gynecology	4	0.9%	4	0
Ophthalmology	1	0.3%	1	0
Orthopedic Surgery	5	1.5%	5	0
Pediatrics	18	5.5%	18	0
Physical Medicine & Rehabilitation	2	0.6%	2	0
Plastic Surgery	0	0.3%	0	0
Psychiatry	24	7.3%	23	1
Public Health & Preventive Medicine	3	0.9%	2	1
Radiation Oncology	0	0.0%	0	0
Urology	1	0.6%	1	0
Vascular Surgery	0	0.0%	0	0
TOTAL	337	100%	316	21

Keywords: Dedicated, quota, IMG, applicant, discipline, first iteration, 2015

School Of Residency	Number of Designated Positions Available	Number of IMGs Matched
Memorial University of Newfoundland	3	3
Dalhousie University	7	7
Université Laval	N/A	10
Université de Sherbrooke	N/A	3
Université de Montréal	N/A	8
McGill University	N/A	14
University of Ottawa	39	28
Queen's University	19	18
Northern Ontario School of Medicine	3	3
University of Toronto	71	71
McMaster University	29	28
Western University	40	33
University of Manitoba	18	17
University of Saskatchewan	10	18
University of Alberta	20	20
University of Calgary	20	20
University of British Columbia	50	50
TOTAL	329¹	351²

Keywords: Match results, quota, positions available, IMG, first iteration, 2015

Note 1: IMG designated quota does not take into account opportunities available in Quebec

Note 2: Number of IMGs matched includes IMGs matched to Quebec which have positions open to both international and Canadian medical graduates



2015 R-1 Match - First iteration

Table 23: First choice discipline preference and match results of IMGs by gender

Discipline	Female		Male	
	1st Choice Discipline	Matched to 1st Choice Discipline	1st Choice Discipline	Matched to 1st Choice Discipline
Anesthesiology	17	3	35	2
Diagnostic Radiology	13	3	15	4
Emergency Medicine	9	1	14	5
Family Medicine	540	82	432	74
Internal Medicine	90	20	115	30
Laboratory Medicine	27	4	27	2
Neurology	11	2	12	3
Neurology - Pediatric	2	1	6	0
Obstetrics & Gynecology	25	2	12	1
Pediatrics	61	12	34	5
Psychiatry	65	15	57	8
Surgery	28	5	90	9
Other	27	1	32	5
TOTAL	915	151	881	148

Keywords: First choice, discipline, preference, match results, IMG, gender, first iteration, 2015

Note 1: For more details about laboratory medicine, see Table 24

Note 2: For more details about surgery, see Table 25

Note 3: For more details about other disciplines, see Table 26

http://www.carms.ca/pdfs/2010_CSA_Report/CaRMS_2010_CSA_Report.pdf



CANADIAN STUDENTS
STUDYING MEDICINE
ABROAD



2010

TABLE 1 BREAKDOWN OF 2010 SAMPLE BY REGION

Medical School Region	Survey Respondents	Estimation of CSAs Enrolled in Medical Schools Across all Years of Study
Ireland*	272	650
Poland**	79	300
Caribbean	501	2000
Australia	206	550
Middle East***	23	70
Totals	1081	3570

* Three respondents listed as attending a medical school in the UK were included in this group as there were not enough respondents to create a separate group for analysis.

** Two respondents listed as attending a medical school in the Czech Republic and one survey respondent listed as attending a medical school in Romania were included in this group.

***Middle East group includes respondents attending a medical school in Bahrain and Israel.

Note: one respondent was excluded from the regional analysis because they were from an international medical school not contacted for this study, and not within any of the regions contacted.

STUDYING MEDICINE ABROAD

MOTIVATION TO STUDY MEDICINE ABROAD

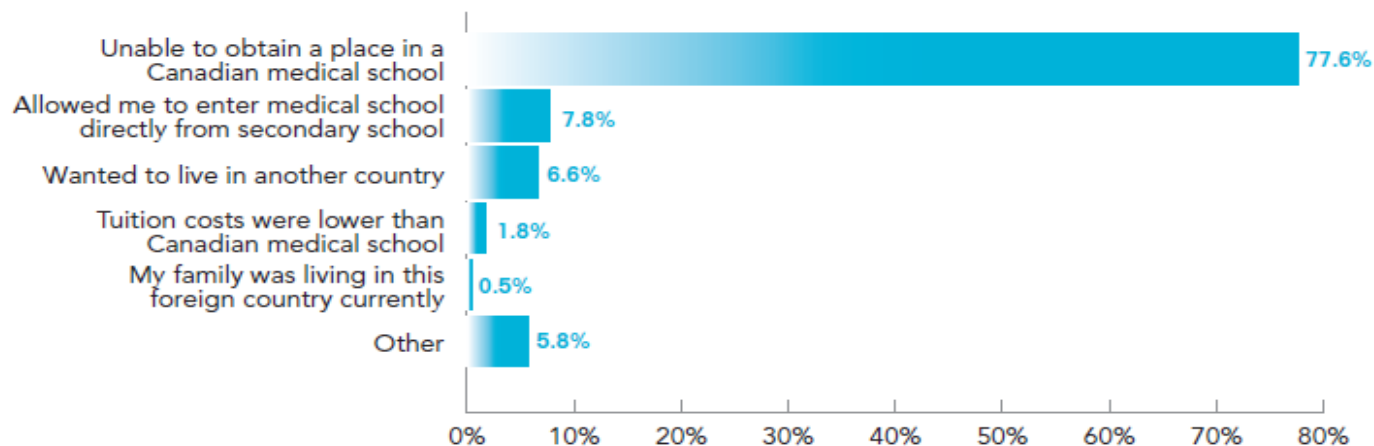


Figure 18 Motivation to study medicine abroad

POST-SECONDARY EDUCATION IN CANADA BY MEDICAL SCHOOL REGION

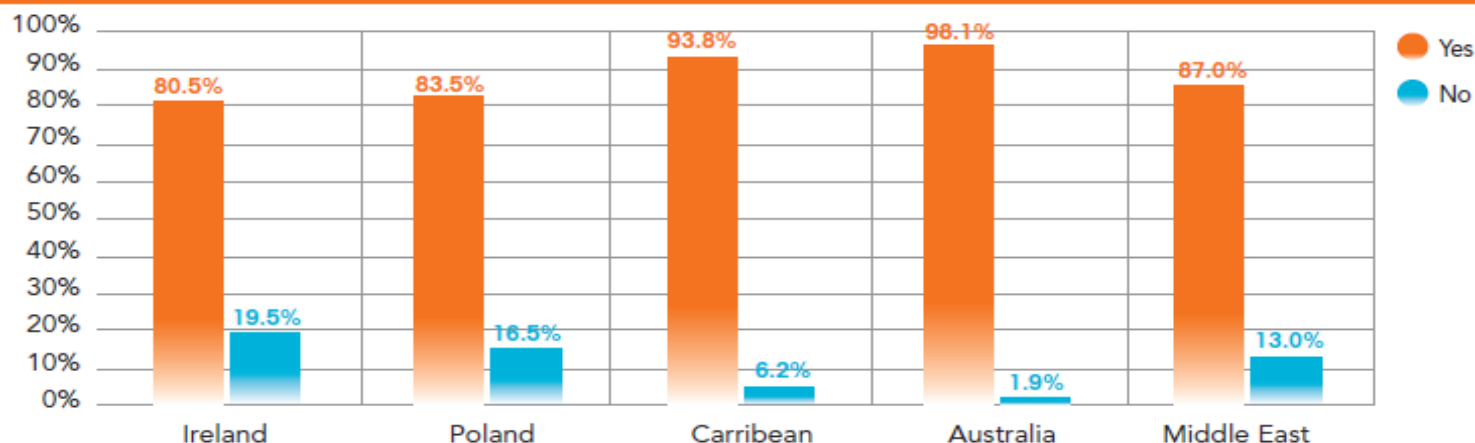


Figure 13 Post-secondary education in Canada by medical school region

Respondents from the Caribbean and Australia were more likely to have attended a post-secondary institution in Canada than those whose medical school was in Europe, where admission to medical school is available directly from high school.

HIGHEST LEVEL OF EDUCATION PRIOR TO ATTENDING MEDICAL SCHOOL ABROAD

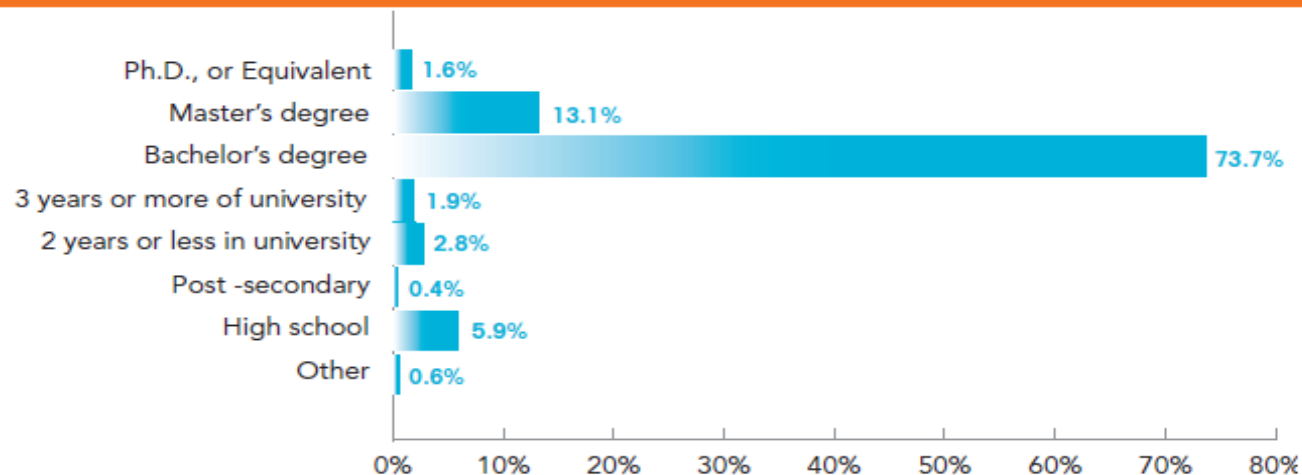


Figure 14 Highest level of education prior to attending a medical school abroad

In 2010, 88.4% of respondents indicated that they had a bachelor's degree, master's degree or Ph.D prior to attending an international medical school. Only 5.9% reported receiving only a high school diploma prior to studying abroad.

SATISFACTION WITH MEDICAL DEGREE PROGRAM

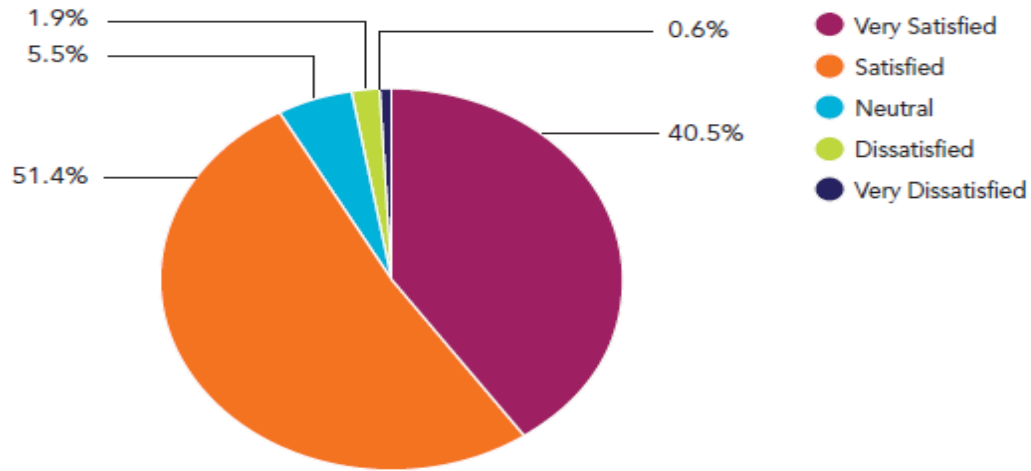


Figure 23 Satisfaction with medical degree program

Overall, 91.9% of survey respondents reported being satisfied and/or very satisfied with the medical education they are receiving abroad.

SATISFACTION WITH MEDICAL DEGREE PROGRAM BY MEDICAL SCHOOL REGION

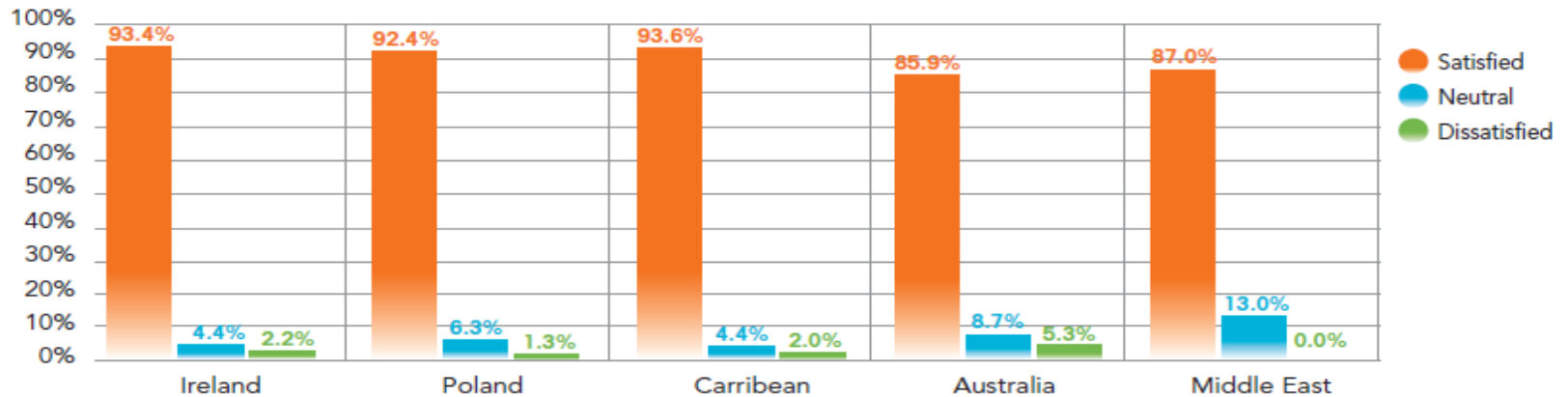


Figure 24 Satisfaction with medical degree program by medical school region

Comparison of the 2010 CSA study to the 2010 Canadian medical graduate cohort

TABLE 11 TOP FIVE LOCATIONS FOR POSTGRADUATE MEDICAL TRAINING IN CANADA (CSA VS. CMG)

CSA			CMG*		
Top Five Locations	n	%	Top Five Locations	n	%
University of Toronto	327	33.5%	University of Toronto	285	15.7%
University of British Columbia	162	16.6%	University of British Columbia	274	15.1%
The University of Western Ontario	59	6.0%	University of Montreal	154	8.5%
McMaster University	54	5.5%	University of Ottawa	135	7.4%
University of Manitoba	36	3.7%	University of Laval	112	6.2%
Total	977	65.3%	Total	1814	52.9%

* Source: CaRMs 2010 CMG Cohort Data

The University of Toronto is the first choice among 33.5% of CSAs and 15.7% of CMGs. Both CSAs and CMGs also cite the University of British Columbia as a top choice.

TABLE 12 TOP FIVE DISCIPLINES FOR POSTGRADUATE MEDICAL TRAINING IN CANADA (CSA VS. CMG)

CSA			CMG*		
Top Five Disciplines	n	%	Top Five Disciplines	n	%
Family Medicine	205	21.0%	Family Medicine	614	33.4%
Internal Medicine	141	14.4%	Internal Medicine	238	12.9%
Pediatrics	86	8.8%	Pediatrics	113	6.1%
Emergency Medicine	66	6.8%	Anesthesiology	98	5.3%
General Surgery	63	6.4%	General Surgery	97	5.3%
Total	977	57.4%	Total	1838	63.1%

* Source: CaRMs 2010 CMG Cohort Data

Four out of the five top residency choices for both CSAs and CMGs are the same.

IMG SELECTION:

Independent Review of Access to Postgraduate Programs by International Medical Graduates (IMG) in Ontario

**Volume 1: Findings and Recommendations
SEPTEMBER 2011**

**Submitted to the Ontario Ministry of Health and Long Term
Care**

Date of Graduation, 2011 Applicants

- 86.1% of CSA vs. 5.3% of immigrant IMG applicants graduated in 2009, 2010, or 2011
- 48.6% of CSAs vs. 0.1% of immigrant IMGs graduated in 2011
- 78.8% of immigrant IMG vs. 2.3% of CSA applicants graduated in 2004 or earlier
- 32.1% of immigrant IMG vs. 0.4% of CSAs graduated in 1995 or earlier

Source: CaRMS Data Tables, 2011 Main Residency Match (R-1)

Canadians Studying Abroad and Immigrant IMGs

- Of the matched group of IMGs across Canada, the percentage of positions matched to CSAs rose from 26.9% in 2008 to 47.9% in 2011. The percentage matched to immigrant IMGs dropped from 73.1% in 2008 to 52.1% in 2011.

Source: CaRMS National Match Results for Active IMGs, 2008-2011

- In 2011, CSAs represented approximately 1/4 of the IMG applicants and obtained just over 1/2 of the first-year residency positions filled by IMGs at the Ontario faculties of medicine

Source: CaRMS Data Tables, 2011 Main Residency Match (R-1)

What are the chances?

How informed are CSAs before they decide to study medicine abroad?

- In Ontario, after the first iteration in 2011, 98 (20.9%) of the 469 CSA applicants were matched to first-year residency positions and 371 (79.1%) were not matched
- An additional 14 were matched in the second iteration

How informed are other IMGs before they immigrate to Canada?

- In Ontario, after the first iteration in 2011, 85 (6%) of the 1,411 immigrant IMG applicants were matched to first-year residency positions and 1,326 (94%) were not matched
- An additional 24 were matched in the second iteration

Source: CaRMS Data Tables, 2011 Main Residency Match (R-1)

CANADIAN PHYSICIAN RESOURCES – 2012 BASIC FACTS

PHYSICIAN SUPPLY

- Number of active physicians (excluding residents) as of January 2012 = 72,368.
- There are 2.03 physicians per 1000 population, or 1 physician for every 492 people.

PHYSICIAN MIX

- 52% are family physicians; 48% are specialists of other disciplines.
- 40% (28,782) are aged 55 or older.
- 36% are female; 64% are male. Over 67% of family physicians under age 35 are female.
- 75% graduated from a Canadian medical school; 24% graduated from a foreign medical school.

PHYSICIAN DISTRIBUTION

- Less than 10% of physicians practise in rural areas whereas about 20% of Canadians live in rural areas. The figure for family physicians is 15% compared to 2% of specialists.
- There is a higher concentration of foreign medical graduates in Saskatchewan (54% of all physicians) and Newfoundland (41%) than in provinces such as Quebec where only 10% graduated outside

INTERNATIONAL COMPARISON

- Canada has 2.4 physicians per 1000 population (including residents) compared to the OECD average of 3.1 (Organization for Economic Co-operation and Development)
- Canada's phys/pop ratio ranks 26 (tied with Slovenia and USA) out of 34 nations ahead of Japan, Poland, Mexico, Korea, Turkey and Chile.
- US Council on Graduate Medical Education has projected a shortage of at least 80,000 by 2020.

- In the first round of the 2011 match, 2,770 Canadian grads completed 2,770 positions (0% filled on quota offered). There were 1,920 IMGs participating in the match (mostly in a parallel process).
- 34% of Canadian grads made family medicine their first choice. Highest proportion in last decade.
- By end of second round, 380 IMGs matched through CaRMS.

PHYSICIAN MIGRATION

- 173 physicians moved abroad in 2010. In the same year, 202 returned from abroad for a net gain of 29. Net gains have occurred seven years running compared with historical net losses of 200-500 per year for the previous decade.
- 566 physicians moved to another prov/terr in 2010 (excl. residents). Net gains occurred in NL (2), NB (11), QC (6), AB (3), and BC (14). Net gains and losses are much less than recent years.

INTERNATIONAL COMPARISON

- Canada has 2.4 physicians per 1000 population (including residents) compared to the OECD average of 3.1 (Organization for Economic Co-operation and Development)
- Canada's phys/pop ratio ranks 26 (tied with Slovenia and USA) out of 34 nations ahead of Japan, Poland, Mexico, Korea, Turkey and Chile.
- US Council on Graduate Medical Education has projected a shortage of at least 80,000 by 2020.

Sources:

CMA Masterfile
CIHI Scott Medical Database
OECD Health Data

AFMC Canadian Medical Education Statistics
CAPER Annual Census of Post-MD Trainees
CaRMS Match Results



2015 R-1 Match - First iteration
Table 10: Active IMG application counts by discipline

Discipline	Total Number of Applicants to this Discipline	Number of Applicants to this Discipline Only
Anatomical Pathology	138	5
Anesthesiology	148	16
Cardiac Surgery	29	1
Dermatology	48	1
Diagnostic Radiology	141	5
Emergency Medicine	187	2
Family Medicine	1848	602
General Pathology	87	2
General Surgery	145	10
Hematological Pathology	20	0
Internal Medicine	831	50
Laboratory Medicine	98	0
Medical Genetics	42	1
Medical Microbiology	9	0
Neurology	141	2
Neurology - Pediatric	58	0
Neurosurgery	33	1
Nuclear Medicine	6	0
Obstetrics & Gynecology	121	6
Ophthalmology	32	4
Orthopedic Surgery	100	18
Otolaryngology - Head & Neck Surgery	8	0
Pediatrics	379	33
Physical Medicine & Rehabilitation	79	2
Plastic Surgery	39	0
Psychiatry	428	32
Public Health & Preventive Medicine	203	2
Radiation Oncology	8	0
Urology	41	6
Vascular Surgery	3	0