

Generalist, Specialist, Subspecialist:
*How is the physician workforce changing
and what is driving the change?*

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Steve Slade, Director, Health Systems and Policy
Carole Jacob, Manager, Health Policy Program Development
Danielle Fréchette, Executive Director
Royal College of Physicians and Surgeons of Canada



ROYAL COLLEGE
OF PHYSICIANS AND SURGEONS OF CANADA
COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA

Healthcare's tall order

- Geographically dispersed, culturally diverse and aging population
- Wide array of health service needs
 - Acute and chronic health conditions
 - Primary care, hospital care, long term care
- Increasing number of provider groups with overlapping/complimentary roles
- 13 provinces & territories, 14 health care systems

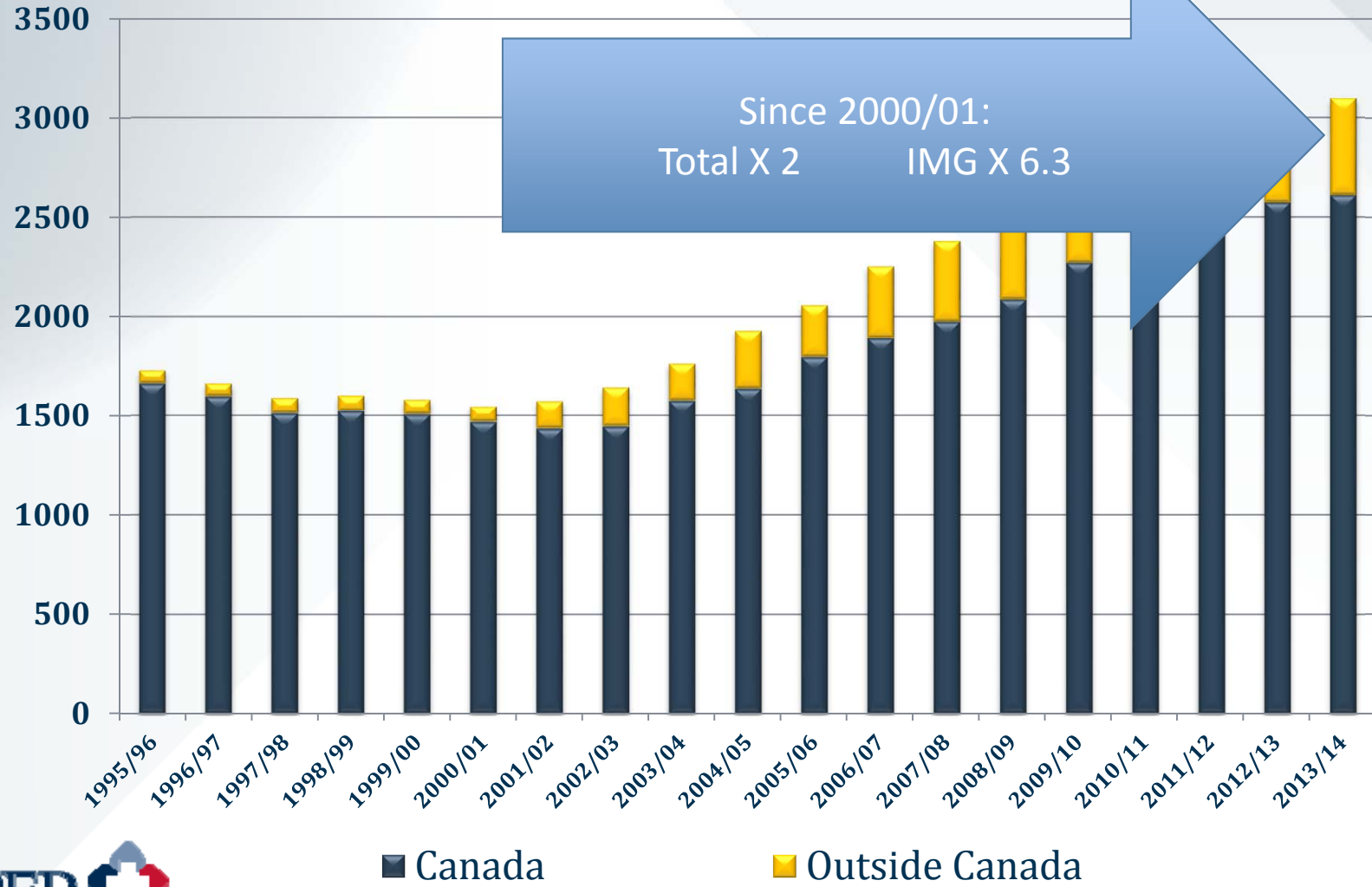
A tall order for the medical workforce

Ensure the right mix, distribution, and number of physicians to meet societal needs

In the context of an evolving healthcare system, the PGME system must continuously adjust its training programs to produce the right mix, distribution, and number of generalist and specialist physicians—including clinician scientists, educators, and leaders—to serve and be accountable to the Canadian population. Working in partnership with all healthcare providers and stakeholders, physicians must address the diverse health and wellness needs of individuals and communities throughout Canada.

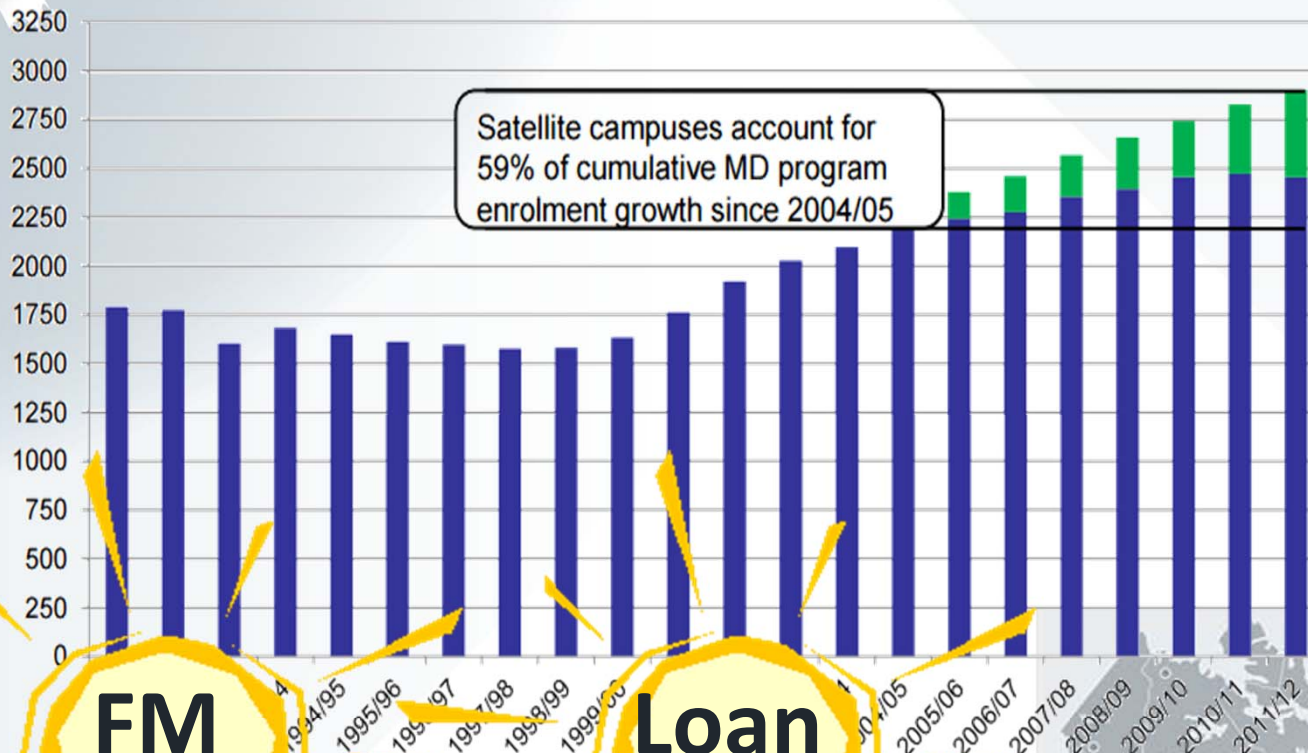
Working on the number of physicians

Number of First Year Post-M.D. Trainees by Place of MD Graduation, Canada, 1995/96 – 2013/14



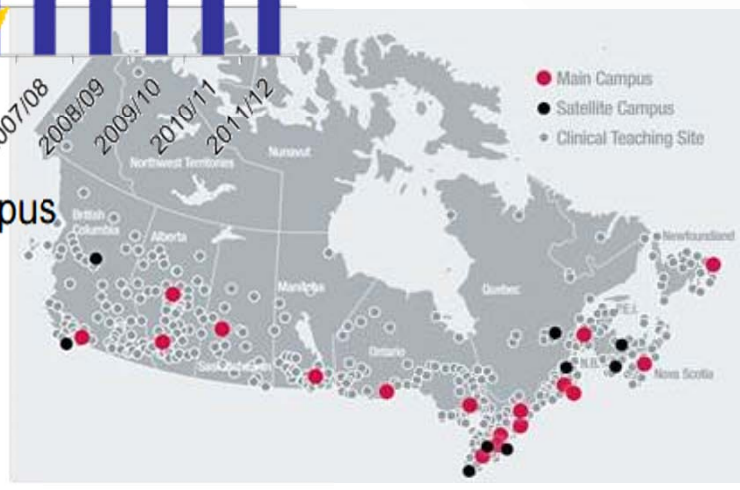
Working on the distribution of physicians

Number of First Year Medical Students Enrolled in Main and Satellite Campuses, Canada, 1990/01 – 2011/12



FM Residencies

Loan Forgiveness



Working on the mix of physicians



... and here is an elephant sized amount of data...

Specialty	CaRMS First Iteration R1 Quota		CAPER PGY1 Trainees*					ROYAL COLLEGE and CPFC New Certificants					CHI Licensed Physician Workforce					SUMMARY STATISTICS				INCREASE/DECREASE INDICATOR			
	2013	2014	2009	2010	2011	2012	2013	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	R1 Quota Change, 2013- 2014	Slope of PGY1 line	Slope of New Certificant Line	Slope of Physician Workforce Line	R1 Quota	PGY1 Trainees	New Certificants	Licensed Workforce
Family Medicine	1424	1488	1160	1265	1333	1424	1479	1117	1184	1277	1471	1528	34,793	35,366	36,769	38,156	39,392	64.00	79.70	115.50	1198.80	UP	UP	UP	UP
Subtotal	1424	1488	1160	1265	1333	1424	1479	1117	1184	1277	1471	1528	34,793	35,366	36,769	38,156	39,392	64.00	79.70	115.50	1198.80	UP	UP	UP	UP
Anatomical Pathology	41	44	40	37	38	46	48	40	46	46	50	56	826	859	900	933	962	3.00	2.50	3.60	34.60	UP	UP	UP	UP
Medical Microbiology	12	13	10	12	12	10	7	11	18	18	15	8	267	288	285	281	288	1.00	-0.80	-0.90	3.50	UP	DOWN	DOWN	UP
General Pathology	7	8	8	5	5	8	6	4	5	4	5	9	325	319	316	305	305	1.00	-0.10	1.00	-5.40	UP	DOWN	UP	DOWN
Hematological Pathology	5	6	5	5	5	5	4	7	5	6	2	6	71	78	77	83	88	1.00	-0.20	-0.50	3.90	UP	DOWN	DOWN	UP
Laboratory Med. (Undifferentiated)†	13	6	6	5	5	3	2	-	-	-	-	-	-	-	-	-	-	-7.00	-1.00	-	-	DOWN	DOWN	UP	UP
Medical Biochemistry	5	4	3	6	4	3	4	3	10	6	4	9	86	86	87	94	93	-1.00	-0.10	0.60	2.20	DOWN	DOWN	UP	UP
Neuropathology	3	2	3	2	1	2	1	2	0	1	3	1	39	43	44	41	41	-1.00	-0.40	0.10	0.20	DOWN	DOWN	UP	UP
Subtotal	86	83	75	72	70	77	72	67	84	81	79	89	1614	1673	1709	1737	1777	-3.00	-0.10	3.90	39.00	DOWN	DOWN	UP	UP
Internal Medicine2	482	499	451	446	471	461	498	371	430	447	450	482	7,320	7,590	7,979	8,541	8,874	17.00	10.90	24.20	405.90	UP	UP	UP	UP
Psychiatry	188	194	153	170	156	182	191	132	210	175	189	231	4,397	4,504	4,665	4,768	4,930	6.00	8.80	17.70	133.00	UP	UP	UP	UP
Pediatrics	158	156	146	157	164	166	163	167	154	157	165	188	2,767	2,904	3,009	3,133	3,323	-2.00	4.30	5.30	134.10	DOWN	UP	UP	UP
Anesthesiology	119	117	126	127	119	117	125	133	151	145	138	124	2,854	2,950	3,032	3,070	3,186	-2.00	-1.20	-1.10	78.40	DOWN	DOWN	DOWN	UP
Diagnostic Radiology	91	89	84	90	95	91	90	113	114	123	125	132	2,219	2,323	2,397	2,457	2,528	-2.00	1.30	4.90	75.20	DOWN	UP	UP	UP
Emergency Medicine (RCPC)3	74	77	62	67	68	71	75	36	59	57	66	66	621	630	659	673	732	3.00	3.00	6.70	26.50	UP	UP	UP	UP
Neurology	48	48	45	50	45	48	45	35	58	58	48	63	831	861	889	923	957	0.00	-0.20	4.60	31.40	UP	DOWN	UP	UP
Public Health and Preventive Medicine4	27	26	34	27	23	25	27	5	41	21	18	23	430	441	470	468	482	-1.00	-1.60	1.30	13.10	DOWN	DOWN	UP	UP
Physical Medicine & Rehab.	27	28	25	27	25	29	28	14	20	23	22	18	386	399	413	427	442	1.00	0.80	1.00	14.00	UP	UP	UP	UP
Dermatology	35	32	17	23	23	32	34	23	28	22	30	26	537	540	557	574	584	-3.00	4.30	0.80	12.80	DOWN	UP	UP	UP
Radiation Oncology	22	22	26	27	22	21	20	30	36	32	35	23	435	447	468	488	504	0.00	-1.80	-1.50	17.90	UP	DOWN	DOWN	UP
Neurology (Pediatrics)†	11	8	11	12	11	11	10	-	-	-	-	-	-	-	-	-	-	-3.00	-0.30	-	-	DOWN	DOWN	UP	UP
Nuclear Medicine	10	10	9	6	6	10	9	7	20	7	8	13	237	244	254	262	273	0.00	0.40	0.00	9.00	UP	UP	UP	UP
Medical Genetics	9	8	8	7	6	7	9	14	8	5	5	5	76	80	82	91	96	-1.00	0.20	-2.10	5.10	DOWN	UP	DOWN	UP
Subtotal	1301	1314	1197	1236	1234	1271	1324	1080	1329	1272	1299	1394	23,110	23,913	24,874	25,875	26,911	13.00	28.90	59.80	956.40	UP	UP	UP	UP
General Surgery	102	99	135	133	130	109	103	83	120	104	99	111	1,935	1,986	2,071	2,078	2,111	-3.00	-8.80	3.50	44.40	DOWN	DOWN	UP	UP
Obstetrics/Gynecology	99	95	105	105	107	100	104	68	110	84	109	111	1,824	1,845	1,939	1,995	2,076	-4.00	-0.70	8.50	65.40	DOWN	DOWN	UP	UP
Orthopedic Surgery	76	68	91	82	85	86	75	79	100	89	87	88	1,329	1,354	1,422	1,495	1,512	-8.00	-2.80	0.50	50.70	DOWN	DOWN	DOWN	UP
Ophthalmology	37	40	33	36	38	43	37	48	52	44	39	45	1,124	1,143	1,197	1,224	1,240	3.00	1.50	-1.90	31.30	UP	UP	DOWN	UP
Urology	35	34	29	34	32	34	34	26	35	32	29	39	605	623	644	651	666	-1.00	1.00	2.00	15.00	DOWN	UP	UP	UP
Otolaryngology - Head and Neck Surgery	30	30	27	33	31	34	30	30	30	33	35	35	647	661	706	717	736	0.00	0.70	1.50	23.40	UP	UP	UP	UP
Plastic Surgery	28	26	28	29	27	27	27	31	30	30	28	31	481	493	512	534	557	-2.00	-0.40	-0.20	19.30	DOWN	DOWN	DOWN	UP
Neurosurgery	19	21	22	21	19	20	19	18	26	26	17	20	272	271	299	303	315	2.00	-0.70	-0.50	11.80	UP	DOWN	DOWN	UP
Cardiac Surgery5	13	10	8	9	10	8	10	16	11	8	9	9	340	345	358	350	352	-2.00	0.30	-1.50	2.90	DOWN	UP	DOWN	UP
Vascular Surgery5	12	10	0	0	0	9	12	8	3	10	7	7	-	-	-	-	-	-2.00	3.30	0.20	-	DOWN	UP	UP	UP
Subtotal	450	433	478	482	479	470	451	407	517	460	459	496	8,557	8,721	9,148	9,347	9,565	-17.00	-6.60	12.00	264.20	DOWN	DOWN	UP	UP
Grand Total	3261	3318	2910	3055	3116	3242	3326	2671	3114	3090	3308	3507	68,074	69,673	72,500	75,115	77,645	57.00	101.90	186.60	2458.40	UP	UP	UP	UP

Sources: Canadian Resident Matching Service (CaRMS); Canadian Post-M.D. Education Registry (CAPER); Royal College of Physicians and Surgeons of Canada (RC); College of Family Physicians of Canada (CPFC); Canadian Institute for Health Information (CHI).

* Canadian citizens/Permanent Residents Only

1- Not listed in RC and CHI data; 2- Includes Occupational medicine listed in CHI data; 3- CHI data does not specify RCPC Emergency Medicine; 4- Includes CHI's Community Medicine category; 5- CHI's Cardio and Thoracic Surgery category is counted as Cardiac Surgery



More specific stories

- Signs of growth according to all indicators:
 - Emergency Medicine
 - Psychiatry
 - Family Medicine
 - Internal Medicine
 - Physical Medicine and Rehab



More specific stories

- General Pathology workforce is declining and PGY1 trainees are reducing
- For Anesthesia & Plastic Surgery:
 - Decreased PGY1 spots
 - Decreased number of PGY1 trainees
 - Decreased number of new certificants
- For General Surgery fewer PGY1 spots and 24% decrease in number of PGY1 trainees

Summary

- The “right number”: significant increase in the number of Canadian and International medical graduates
- The “right distribution”: continued challenges, but efforts underway
- The “right mix”: Change is happening
 - Increasing by every measure – Emerg, Psych, FM, IM, Phys Med & Rehab
 - Signs of decrease – Anesthesia, Gen Path, Gen Surg



Conclusion

- We have data to measure the number, mix and distribution of physicians
- More work/data is needed to measure what is the “right” number, mix and distribution
 - Accounting for more providers
 - Accounting for changing scopes & models
 - Accounting for a changing population