

Physician resource databank: numbers, distribution and activities of Canada's physicians

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The physician resource databank, compiled and maintained by the Canadian Medical Association (CMA), contains functional information from 41 599 of Canada's licensed physicians. The information was gathered from a 20-item questionnaire sent to 47 162 physicians. Of the total, 38 653 responses came from physicians who had completed their training and these were included in the analysis to produce a profile of the supply of physicians in Canada. The data from physicians younger than 35 years indicate some changes in the structure of the supply: 27% are women (compared with only about 9% of physicians older than 45 years).

The implications of these statistics are not yet clear, but within the next decade the numbers in some specialties — surgery, anesthesia, obstetrics and gynecology, and radiology — may be too few to meet the demand as more than 20% of the current practitioners reach retirement age. Other findings are that

•98% of all physicians who work full-time engage in some patient care (either directly or indirectly through participation in hospital committees or similar activities)

•Newfoundland and British Columbia have attracted almost twice as many physicians as they have trained

•Newfoundland's (and Saskatchewan's) imports include twice as many foreign-trained as domestically-trained physicians

•82.4% of Canada's physicians are concentrated in eight fields: general/family practice (47.4%), surgery (9.3%), psychiatry (5.7%), anesthesia (4.6%), internal medicine (4.3%), obstetrics and gynecology (3.9%), radiology (3.8%) and pediatrics (3.4%).

Determining the level and growth of resources in the health care sector is done not only by consumers and suppliers, but also by governments. Consumers require resources that ensure services on demand but they do not want to be burdened by direct or indirect costs. Suppliers need sufficient resources to meet the demand for services, allowing for the production of new and better services. They also want to earn enough revenue to offset the production costs encountered when producing a unit of service. Governments require sufficient resources to meet promised commitments while constraining costs.

No one single group is served by a shortage or an oversupply of resources (especially human resources) because the users control the use of all other resources.

The supply of resources at any one time is a function of the current stock and the number entering and leaving the stock. Applied to physicians, the stock includes all practis-

ing physicians, those completing their education and physicians immigrating into the country — minus physicians lost because of retirement, death or emigration. Not all physicians are providing the same services, therefore, one needs to know much more than the number, age and sex distribution and location — one needs to know what services each physician is providing and how much time is being spent.

The CMA's physician resource databank was developed to answer such questions and to serve as an inventory of data on Canada's physician supply. This paper presents highlights of an analysis of the databank and focusses on the functions, distribution, age and gender of physicians in various medical fields.

The origins of the physician resource databank can be traced directly to the recommendations of the requirements committee on physician manpower chaired by Dr. J.B. McKendry and submitted to the national committee in April 1976.¹ The first recommendation of the committee's report concerned the establishment of a "national functional inventory" of physicians, the purpose of which would be to improve the understanding of professional activities of physicians in Canada.

In December 1976 the national committee on physician manpower agreed to create a task force chaired by a representative of the CMA with the cooperation of Statistics Canada; the health economics and statistics division, the Health Programs Branch of the Department of National Health and Welfare and the Canadian Association of Internes and Residents. The task force

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was to study the feasibility of establishing a databank but, unfortunately, this endeavour was unsuccessful.

After years of discussion, the CMA began to develop a functional inventory in 1981. The rationale was that this type of data would support policy making and planning as well as serving as a tool to review government policy decisions and to make appropriate recommendations. The CMA board of directors set the priorities, deciding that a functional inventory of "active physicians" should be constructed before a databank on under- and postgraduate physicians.

An ad hoc committee was established by CMA's executive committee to conceptualize and set into motion the development of the databank. The committee examined the feasibility of conducting the research, reviewed previous attempts, identified the participants and estimated the costs in personnel and computer time. It also outlined the research design that was subsequently approved by the CMA's board of directors.

Method

Lists of physicians with Canadian licences were gathered from provincial licensing bodies, Southam Marketing Systems (producers of the *Canadian Medical Directory*) and CMA provincial divisions. Names of physicians known to be deceased or retired were removed as were duplicate names and names of nonphysicians. This yielded a file of 51 727

physician names and addresses; 47 162 physicians with Canadian addresses were included in the survey.

A questionnaire to obtain basic information regarding location, function and medical field was constructed and pretested. This brief, 20-item self-administered questionnaire was mailed to all potential respondents in March 1982 or later if they received their licence after that date. Respondents received the questionnaire in French or English (information about how to request a questionnaire in the other official language was included). Three follow-up mailings were conducted as recommended by Dillman's total design method.²

Coding the responses

Physicians were asked to indicate their gender and birth date. Ages were compiled as the number of years between year of birth and the present and, for standard analysis, were categorized as less than 35, 35 to 44, 45 to 54, 55 to 59, 60 to 64, 65 to 69, 70 to 74 and 75 or more.

Physicians graduating from a medical school located within their province of residence were classed as having had training "within the province". Physicians graduating from any other Canadian medical school were classified as "other Canada", while "elsewhere" categorized the training of all other physicians.

In the questionnaire, physicians were asked to describe their current professional activities as full-time,

part-time, semi-retired, retired, or other. This unadjusted self-defined description of work status was used and compared with an adjusted work status variable since physicians were also asked to indicate the number of weeks they worked per year and the number of hours worked per week. This defined the level of work more homogeneously.

The adjusted full-time category included all physicians reporting at least two of the following: work full-time, work 40 or more weeks per year and work 40 or more hours per week. The adjusted part-time category included all practising physicians who reported working fewer than 40 weeks per year, without regard to the average number of hours reported or whether they reported being full-time or part-time. Most members of this group (91.7%) also reported working fewer than 40 hours per week during weeks worked. Physicians indicating that they were retired and not working any weeks per year or hours per week were categorized as retired, and those who reported being on maternity, education or sick leave, etcetera were categorized as other. "Not reported" was assigned when information across categories was inconsistent or missing; eg, physicians who reported working full-time but said they worked no weeks or hours per year would be coded as not reported. Physicians indicating they were retired were defined as retired even if they indicated they worked some weeks per year or hours per week. Physicians not supplying information across at least two categories were defined as not

Table I—Overall response from physicians whose addresses were Canadian November 1982

Province of residence	Questionnaires (and response rate)			
	All respondents		Eligible respondents*	
	Mailed	Returned (% of total)	Mailed	Returned (% of total)
NF	817	723 (88.5)	792	698 (88.1)
PEI	170	154 (90.6)	165	149 (90.3)
NS	1670	1530 (91.6)	1552	1412 (91.0)
NB	916	834 (91.0)	868	786 (90.6)
PQ	12 569	10 583 (84.2)	11 923	9937 (83.3)
ON	17 657	15 681 (88.8)	16 322	14 346 (87.9)
MB	1835	1643 (89.5)	1729	1537 (88.9)
SK	1467	1331 (90.7)	1413	1277 (90.4)
AB	3772	3343 (88.6)	3448	3019 (87.6)
BC	6212	5708 (91.9)	5931	5427 (91.5)
NWT/YT	77	69 (89.6)	73	65 (89.0)
Canada	47 162	41 599 (88.2)	44 216	38 653 (87.4)

*Excludes physicians who reported they were in postgraduate training

Table II—Nonrespondents to the physician manpower questionnaire, by sex, by province, November 1982

Province of residence	Nonrespondents	
	Men	Women
NF	81	13
PEI	13	3
NS	119	21
NB	73	9
PQ	1645	341
ON	1661	315
MB	158	34
SK	117	19
AB	356	73
BC	429	75
NWT/YT	7	1
Canada	4659	904

reported for the adjusted work status variable.

Physicians were asked to report the hours per week, on average, they spent in providing patient care service, but excluding on-call time. Patient care service was categorized as

- services provided in offices, hospitals, institutions and patients' homes
- hospital committees
- practice management
- or other (please specify).

Physicians were also asked to provide information on the average number of hours spent in "research, administration, classroom teaching (lectures/seminars) and other (please specify)".

The postal service, in conjunction with Statistics Canada, designated as rural all areas of the country with populations of fewer than 10 000 and assigned the number 0 as the second digit in the six character postal code. Thus, physicians located in rural areas were easy to separate

from those residing in larger population centres and were categorized as rural and the latter urban.

The physicians were asked to list the specialties (from a list of 53) in which they are recognized by their provincial medical licensing body and to indicate the specialty certificate granted most recently (the last specialty).

For comparison purposes, physicians were also grouped as medical, surgical or other specialists in a categorization scheme used by the

Department of National Health and Welfare.³

Physicians were categorized as general practitioners/family physicians if they indicated family medicine as their last recognized specialty or listed no recognized specialty. This group was asked to indicate the discipline that best described their practice and the amount of time spent in other disciplines.

Results

Of the 47 162 physicians contact-

Table IV—Location of training (province of residence, other province, foreign) by province, November 1982

Province of residence	Location of training (as a % of total number of physicians in the province)		
	Province of residence	Other province	Foreign
NF	150 (21.5)	197 (28.2)	351 (50.3)
PEI	0 (0)	116 (77.9)	33 (22.1)
NS	780 (55.2)	229 (16.2)	403 (28.5)
NB	0 (0)	551 (70.1)	235 (29.9)
PQ	7953 (80.0)	564 (5.7)	1420 (14.3)
ON	8272 (57.7)	1761 (12.3)	4313 (30.1)
MB	826 (53.7)	178 (11.6)	533 (34.7)
SK	305 (23.9)	323 (25.3)	649 (50.8)
AB	1255 (41.6)	696 (23.1)	1068 (35.4)
BC	962 (17.7)	2656 (48.9)	1809 (33.3)
NWT/YT	0 (0)	46 (70.8)	19 (29.2)

Table III—Licensed physicians in Canada, by province, by age, by gender, November 1982

Age category and gender	Licensed physicians in province											
	NF	PEI	NS	NB	PQ	ON	MB	SK	AB	BC	NWT/YT	Canada
<35												
Male	163	20	225	127	2047	2120	259	213	607	809	12	6602
Female	54	6	83	33	868	718	88	62	199	267	11	2389
35-44												
Male	182	33	315	213	2230	3313	296	284	685	1315	20	8886
Female	25	3	44	21	320	609	52	41	100	220	2	1437
45-54												
Male	123	23	247	156	1838	2767	276	282	568	991	10	7281
Female	16	5	29	10	161	335	30	27	54	110	1	778
55-59												
Male	60	17	124	64	729	1313	153	124	261	486	2	3333
Female	3	0	14	2	66	157	18	9	16	53	0	338
60-64												
Male	37	17	130	52	539	981	123	94	208	394	4	2579
Female	2	0	6	3	32	86	8	7	18	40	1	203
65-69												
Male	12	15	70	47	348	673	93	54	147	293	1	1753
Female	1	0	4	0	18	53	10	2	7	15	0	110
70-74												
Male	11	5	39	23	224	411	51	32	60	177	-	1033
Female	0	0	3	1	9	29	5	1	2	15	-	65
75 ≥												
Male	6	5	56	24	243	509	60	33	53	183	-	1172
Female	0	0	3	5	15	60	5	1	3	5	-	97
No birthdate given												
Male	2	-	19	2	218	186	8	8	25	48	1	517
Female	1	-	1	3	32	26	2	3	6	6	0	80
All ages												
Male	596	135	1225	708	8416	12 273	1319	1124	2614	4696	50	33 156
Female	102	14	187	78	1521	2073	218	153	405	731	15	5497

Table V—Level of activity as reported* of physicians, by age, by gender, November 1982

Level-of-activity category and by gender	Completed years of age								No birthdate given	Total
	<35	35-44	45-54	55-59	60-64	65-69	70-74	75≥		
Full-Time										
Male	6284	8597	6947	3035	2038	767	227	94	319	28 308
Female	1767	1026	585	227	114	30	7	5	49	3810
Total	8051	9623	7532	3262	2152	797	234	99	368	32 118
Part-Time										
Male	182	118	101	96	118	135	83	72	14	919
Female	480	326	140	55	30	16	3	4	11	1065
Total	662	444	241	151	148	151	86	76	25	1984
Semi-retired										
Male	1	8	20	57	175	385	286	223	11	1166
Female	8	7	7	10	14	17	16	14	1	94
Total	9	15	27	67	189	402	302	237	12	1260
Retired										
Male	2	7	19	48	131	396	398	734	105	1840
Female	4	14	10	25	33	43	35	66	10	240
Total	6	21	29	73	164	439	433	800	115	2080
Other										
Male	80	69	78	28	62	30	14	15	33	409
Female	101	39	21	9	3	4	2	2	5	186
Total	181	108	99	37	65	34	16	17	38	595
Not reported										
Male	53	87	116	69	55	40	25	34	35	514
Female	29	25	15	12	9	-	2	6	4	102
Total	82	112	131	81	64	40	27	40	39	616
Total										
Male	6602	8886	7281	3333	2579	1753	1033	1172	517	33 156
Female	2389	1437	778	338	203	110	65	97	80	5497
Total	8991	10 323	8059	3671	2782	1863	1098	1269	597	38 653

*Unadjusted for hours/week and weeks/year reported

Table Va—Level of activity adjusted* of physicians, by age, by gender, November 1982

Level-of-activity category and by gender	Completed years of age								No birthdate given	Total
	<35	35-44	45-54	55-59	60-64	65-69	70-74	75≥		
Full-time										
Male	6291	8638	7003	3076	2085	815	255	116	322	28 601
Female	1795	1055	589	236	121	32	7	8	51	3894
Total	8086	9693	7592	3312	2206	847	262	124	373	32 495
Part-Time										
Male	177	96	95	82	112	141	96	79	12	890
Female	455	309	137	54	28	13	4	3	9	1012
Total	632	405	232	136	140	154	100	82	21	1902
Semi-retired										
Male	1	6	16	50	153	345	252	194	11	1028
Female	5	7	5	7	10	17	15	12	1	79
Total	6	13	21	57	163	362	267	206	12	1107
Retired										
Male	1	6	19	44	123	377	387	721	104	1782
Female	4	13	9	25	33	42	34	66	10	236
Total	5	19	28	69	156	419	421	787	114	2018
Other										
Male	80	69	78	28	62	30	14	15	33	409
Female	101	39	21	9	3	4	2	2	5	186
Total	181	108	99	37	65	34	16	17	38	595
Not reported										
Male	52	71	70	53	44	45	29	47	35	446
Female	29	14	17	7	8	2	3	6	4	90
Total	81	85	87	60	52	47	32	53	39	536
Total										
Male	6602	8886	7281	3333	2579	1753	1033	1172	517	33 156
Female	2389	1437	778	338	203	110	65	97	80	5497
Total	8991	10 323	8059	3671	2782	1863	1098	1269	597	38 653

*Adjusted for hours/week and weeks/year reported

ed, 41 599, 88% responded (Table I and II). Of the total, about 7% reported that they were still engaged in postgraduate training and were considered ineligible. The total response, therefore, was 44 216.

The response rate varied from 83.3% in Quebec to 91.5% in British Columbia with men responding at a rate 2% higher than women.

The analyses are based on data obtained from the questionnaires of the 38 653 eligible respondents.

Women represented about 27% of physicians under age 35, while less than 9% of physicians over age 45 were women (Table III). Overall, women constituted 14% of the physician population. Almost half of the licensed physicians were younger than 45; 70% of women fall into this category as compared with 47% of men.

Within the provinces, Prince Edward Island (9%) and New Brunswick (10%) have the lowest proportion of women physicians and have attracted a smaller share of those under the age of 35 than have the other provinces. Women constitute 23% of physicians in the territories

— 73% of these women are under 35 years of age. These three areas also have the smallest physician pools (combined they represent only 2.6% of the national total).

Until recently, Canada had been an importer of physicians. Overall, 28% of physicians in Canada received their medical education outside the country (Table IV), with more than 50% of the physicians in Saskatchewan and Newfoundland having graduated from foreign medical schools. Quebec has the smallest percentage of foreign-trained physicians. Eighty percent or more of the Canadian medical graduates trained in Ontario, Quebec and British Columbia choose to reside in the province in which they were trained. Of the provinces with medical schools, Newfoundland and British Columbia have attracted more Canadian-trained physicians than the total that have been trained in their province's medical schools, with British Columbia experiencing the greatest net gain — more than twice the number of physicians trained in the province have come to British Columbia from elsewhere in Canada.

Two methods of defining activity status are used. The first is based solely on the status as reported by the individual respondent (Table V); the second is adjusted by taking into consideration the hours per week and weeks per year indicated by the physician respondents (Table Va).

The difference between the two definitions are negligible (1.2%) for the full-time activity group — the combined part-time and semi-retired categories have a difference of 7.2% with a 2.5% difference for the retired group. Adjusting for hours and weeks reported results in an increase of 0.3% in the proportion of physicians 65 years of age and older with full-time activity status. Similarly, 1.9%, 0.9% and 0.4% increases were found for the proportion of physicians 65 years of age and older in the part-time, semi-retired and retired categories respectively.

Table Vb (unadjusted for hours or weeks worked) presents the self-reported participation rates of licensed physicians. Of the total number of physicians less than 35 years of age, 90.4% were engaged in full-time activity and 7.4% in part-time. Of men aged 35 to 44 years, 97.7%

were in full-time practice (this is the highest age specific participation rate for men). Women in all age categories are less likely to be practising full-time than are their male counterparts and more likely to be in part-time practice.

Ninety-one percent of physicians less than 65 were engaged in full-time activity. Of men less than 65 years, 94% are in full-time practice compared with 72% of women. Of all women over 65, fewer women (15%) than men (27%) continue to work full-time after age 65.

The level of activity of less than 2% of physicians could not be determined from the information provided. Twenty-five percent of these physicians were age 65 or older and were not likely to be engaged in full-time practice (Table Va); the remainder had difficulty providing the information — some having just recently changed practice or returned to practice after inactivity.

Of the 53 specialties listed, eight accounted for 82.4% of responses; ie, general/family practice 47.4%, surgery 9.3%, psychiatry 5.7%, anesthesia 4.6%, internal medicine 4.3%, obstetrics and gynecology 3.9%, radiology 3.8% and pediatrics 3.4% (Table VI). The relative distribution of specialties did not change when only full-time physicians were considered.

There was a change, however, when only part-time physicians were considered. Of the physicians working part-time, general/family practice accounted for 61.6%, psychiatry 5.7%, anesthesia 5.1%, pediatrics 3.9%, radiology 3.3%, surgery 3.2%, internal medicine 2.7% and obstetrics and gynecology 1.8%. Sixty-four percent of physicians in part-time general/family practice were female.

The majority of physicians who are semi-retired are in general/family practice (37%); however, unlike the part-time activity category, more men than women are engaged in general/family practice. Surgery accounted for 14.1%, anesthesia 6.0%, obstetrics and gynecology 5.1%, psychiatry 4.9%, radiology 4.3%, and ophthalmology and pediatrics 3.1% of practising physicians with semi-retired activity status.

Currently, 47% of the full-time physicians in Canada are general practitioners or family physicians.

Table Vb—Unadjusted* participation rates of licensed physicians by level of activity, by age, by gender, November 1982

Age category and gender	Level of activity as %		
	Full-time	Part-time	Semi-retired
<35			
Male	96.0	2.8	0.0
Female	74.9	20.3	0.3
Total	90.4	7.4	0.1
35-44			
Male	97.7	1.3	0.1
Female	72.7	23.1	0.5
Total	94.2	4.3	0.1
45-54			
Male	97.0	1.4	0.3
Female	76.7	18.3	0.9
Total	95.0	3.0	0.3
55-59			
Male	93.0	2.9	1.7
Female	69.6	16.9	3.1
Total	90.9	4.2	1.9
60-64			
Male	80.7	4.7	6.9
Female	58.8	15.5	7.2
Total	79.2	5.4	7.0
65≥			
Male	28.2	7.5	23.2
Female	15.9	8.7	17.8
Total	27.4	7.6	22.8

*Unadjusted for hours/week and weeks/year

The proportion of general practitioners to specialists varies across the country. Prince Edward Island (56.8%) and the territories (73.2%) have the highest proportion of general practitioners and Manitoba (43.5%) has the lowest proportion

(Table VII).

Although 55% of full-time physicians in Canada are under the age of 45, 67% (10 146) of family/general practitioners are under 45 (Table VIII). Of physicians under age 35, 71.2% are in general/family

practice, reflecting that physicians are older when they enter specialty practice because of longer training programs. Currently, 50% to 55% of Canadian medical graduates are choosing general or family practice.⁴ In fact, more than half of the full-

Table VI—Level of adjusted* activity of Canadian physicians by gender, by last specialty†, November 1982

Specialty category	Full-time		Part-time		Semi-retired		Other		Total		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Allergy	23	5	0	0	0	0	0	0	23	5	28
Anesthesia	1275	157	44	53	58	8	126	42	1503	260	1763
Cardiology	465	22	13	1	20	0	17	0	515	23	538
Clinical immunology	154	8	5	1	3	0	13	2	175	11	186
Community medicine	233	61	13	12	19	3	102	15	367	91	458
Dermatology	198	56	12	9	12	0	20	3	242	68	310
Emergency medicine	36	2	1	0	0	0	0	0	37	2	39
Endocrinology	204	20	2	0	1	1	8	0	215	21	236
General/family practice	13 054	2251	422	749	377	40	1114	320	14 967	3360	18 327
Gastroenterology	234	7	5	0	3	0	10	1	252	8	260
Geriatrics	98	8	9	3	8	2	12	1	127	14	141
Obstetrics/Gynecology	1183	89	24	10	52	4	125	9	1384	112	1496
Hematology	195	24	1	5	3	0	9	2	208	31	239
Pathology	650	125	12	7	16	0	48	9	726	141	867
Medical genetics	178	43	4	7	6	2	17	7	205	59	264
Internal medicine	1281	154	34	18	39	0	113	11	1467	183	1650
Nephrology	155	10	1	1	2	0	4	1	162	12	174
Neurology	290	24	9	3	11	2	16	2	326	31	357
Surgery‡	3013	59	60	1	156	0	310	6	3539	66	3605
Nuclear medicine	136	8	0	1	5	0	2	0	143	9	152
Nutrition	1	1	0	0	0	0	1	0	2	1	3
Ophthalmology	615	40	21	9	34	0	50	5	720	54	774
Otolaryngology	384	11	22	1	25	0	74	0	505	12	517
Pediatrics	892	229	28	46	29	5	63	27	1012	307	1319
Physiatry	131	25	6	2	5	1	13	3	155	31	186
Psychiatry	1638	273	65	44	47	7	96	25	1846	349	2195
Radiology	1141	114	40	23	47	1	89	12	1317	150	1467
Respiratory medicine	233	21	7	1	11	1	33	5	284	28	312
Rheumatology	132	16	1	3	7	0	10	1	150	20	170
Medical scientists	8	1	0	0	0	0	2	0	10	1	11
Other	371	30	29	2	32	2	140	3	572	37	609

*Adjusted for hours/week and weeks/year

†Last specialty is defined as the most recent specialty obtained as indicated by the respondent

Errors are due to rounding

‡Surgery includes general surgery, cardiovascular and thoracic surgery, neurosurgery, orthopedic surgery, plastic surgery and urology

Table VII—Proportion of total physician population that are general/family practitioners, by level of adjusted* activity status, by province, November 1982

Province of residence	Full-time			Part-time			Semi-retired			Total†		
	GP/FPs	Total	% GPs	GP/FPs	Total	% GPs	GP/FPs	Total	% GPs	GP/FPs	Total	% GPs
NF	338	630	53.7	15	25	60.0	1	11	9.1	373	698	53.4
PEI	67	118	56.8	6	10	60.0	4	8	50.0	80	149	53.7
NS	562	1167	48.2	32	57	56.1	15	53	28.3	674	1412	47.7
NB	306	653	46.9	22	35	62.9	9	27	33.3	368	786	46.8
PQ	3773	8633	43.7	269	466	57.7	93	251	37.1	4397	9937	44.2
ON	5493	11 934	46.0	430	711	60.5	163	413	39.5	6679	14 346	46.6
MB	570	1309	43.5	35	58	60.3	21	56	37.5	676	1537	44.0
SK	573	1111	51.6	28	44	63.6	11	30	36.7	652	1277	51.1
AB	1284	2606	49.3	91	135	67.4	33	71	46.5	1514	3019	50.1
BC	2298	4278	53.7	237	355	66.8	66	186	35.5	2865	5427	52.8
NWT/YT	41	56	73.2	6	6	100.0	1	1	100.0	49	65	75.4
Canada	15 305	32 495	47.1	1171	1902	61.6	417	1107	37.7	18 327	38 653	47.4

*Adjusted for hours/week and weeks/year

†Total includes retired, other and not reported categories of adjusted activity status

time practitioners in four major specialties are age 45 and older: surgery (55%), anesthesia (60%), obstetrics and gynecology (59%), radiology (55%). Of physicians in these specialties, 20% will become 65 or older in the next 10 years. As more women have entered

medicine, internal medicine has become a more attractive field for women (Table IX). Among the youngest age cohort (<35), women are a higher proportion of the physicians in general/family practice (23%), internal medicine (23%) and pediatrics (34%) than they are of the general full-time physician group (22%).

The mean hours per week worked for all physician's activity (patient care, teaching, research, administration or a combination of these) are presented in Tables X and XI. Almost all (98%) of full-time specialists and general/family practitioners engage in some patient care activities. Nearly half (46.7%) of general/family practitioners reported they devote some time each week to research, teaching and administration (beyond practice management), and more than two-thirds of full-time specialists (70.1%) reported time spent in research, teaching and administration.

Although specialists reported working about 1.5 hours per week more than did general/family practitioners, on the average the specialists spend 2.5 hours less in patient care activities.

Full-time general/family practitioners work 2.6 hours per week more than the average of all general/family practitioners. Full-time specialists work on average 2.2 hours per week more than all specialists combined.

Although most physicians engaged in full-time, part-time or semi-retired activity reported some pa-

Table VIII—Physicians practising full-time in selected specialties (last specialty obtained), by age, November 1982*

Last specialty	Physicians practising full-time (% by age category)						No birthdate given
	<35	35-44	45-54	55-59	60-64	65≥	
Anesthesia	13	26	33	14	9	4	1
General/family practice	38	29	17	8	5	3	1
Internal medicine	25	37	19	9	6	4	1
Obstetrics/gynecology	12	30	31	13	10	5	1
Pediatrics	18	35	25	10	7	3	2
Psychiatry	14	32	32	12	6	3	1
Radiology	13	32	30	14	8	3	1
Surgery	10	30	31	14	8	6	1

*Row total = 100%
Errors are due to rounding

Table IX—Proportion of women practising full-time in selected medical fields (last specialty obtained) by age, November 1982*

Last specialty	Women practising full-time (% by age category)				
	<35	35-44	45-54	55-59	60-64
Anesthesia	23†	11	10	7	7
General/family practice	23	11	9	8	6
Internal medicine	23	9	6	6	2
Obstetrics/gynecology	16	9	5	5	3
Pediatrics	34	22	17	15	7
Psychiatry	21	16	11	14	12
Radiology	21	12	6	2	5
Surgery	7	2	1	1	1

*Errors are due to rounding
†How to interpret the data: that 23% of those physicians aged <35 practising anesthesiology in November 1982 were women

Table X—Total* mean hours worked per week by general/family practitioners, by province, November 1982

Province of residence	Engaged in patient care			Engaged in teaching, research, administration			Total activities		
	No. of GP/FPs	Time (h/wk)	SD	No. of GP/FPs	Time (h/wk)	SD	No. of GP/FPs	Time (h/wk)	SD
NF	346	50.8	17.8	149	9.1	11.2	352	53.8	16.8
PEI	77	50.2	19.1	28	3.4	3.9	77	51.5	19.0
NS	588	50.9	18.8	221	9.3	13.3	596	53.6	18.6
NB	326	51.1	18.6	145	6.3	9.8	332	52.9	19.1
PQ	3973	46.2	17.1	2271	9.2	12.1	4079	50.1	18.0
ON	5834	49.0	18.3	2517	10.4	14.2	5983	52.1	18.8
MB	604	48.7	18.0	283	9.9	12.8	616	52.3	18.3
SK	596	52.2	18.8	306	7.2	10.0	607	54.9	18.6
AB	1356	49.3	17.8	672	9.2	13.1	1386	52.6	18.8
BC	2514	47.9	15.9	1155	6.8	9.9	2551	50.3	16.8
NWT/YT	48	48.1	15.0	22	9.9	14.6	48	51.7	14.6
Canada	16 262	48.4	17.7	7769	9.1	12.6	16 627†	51.6	18.3

*Total includes the activity of full-time, part-time and semi-retired physicians
†General/family practitioners not reporting 240
SD = standard deviation

tient care activity (Tables XII and XIII), the variation was considerable. Among physicians, 87% of specialists and 94% of general/family

practitioners engaged primarily in patient care (60% or more of the time); 7% of specialists and 4% of general/family practitioners engaged

primarily in teaching, research and administration while the remaining 6% of specialists and 2% of general/family practitioners carry a mixed

Table XI—Total* mean hours worked per week by specialists, by province, November 1982

Province of residence	Engaged in patient care			Engaged in teaching, research, administration			Total activities		
	No. of specialists	Time (h/wk)	SD	No. of specialists	Time (h/wk)	SD	No. of specialists	Time (h/wk)	SD
NF	302	45.6	18.1	229	11.3	12.6	305	53.6	17.7
PEI	56	47.6	19.2	30	5.4	6.9	56	50.5	18.6
NS	641	46.8	17.8	462	11.6	13.5	652	54.2	18.4
NB	360	48.2	16.9	211	8.4	11.3	367	52.1	17.7
PQ	4978	45.1	20.1	3741	12.1	14.0	5119	52.7	21.0
ON	6666	46.6	20.7	4727	12.5	14.5	6846	53.9	20.9
MB	771	43.5	18.2	572	12.2	13.9	781	52.1	17.5
SK	548	46.7	18.5	408	11.3	13.4	560	53.9	19.7
AB	1352	46.4	17.6	1001	11.8	13.4	1381	53.9	17.4
BC	2113	45.2	17.2	1394	10.5	13.7	2169	50.8	18.7
NWT/YT	14	50.0	10.2	11	9.0	11.2	15	53.3	8.1
Canada	17 801	45.9	19.5	12 786	11.9	14.0	18 251†	53.1	20.1

*Total includes the activity of full-time, part-time and semi-retired physicians
†Specialists not reporting 244
SD = standard deviation

Table XII—Total* mean hours worked per week by general/family practitioners by their primary† activity, by gender, by age, November 1982

Age categories	Engaged in patient care			Engaged in teaching, research, administration			Mixed patient care and teaching, research, administration‡		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<35	(n = 4387)	(n = 1669)	(n = 6056)	(n = 87)	(n = 33)	(n = 120)	(n = 66)	(n = 20)	(n = 86)
Mean	54.4	44.6	51.7	46.7	29.8	42.0	67.9	53.6	64.6
SD	17.1	16.5	17.5	19.1	16.8	20.0	35.3	29.2	34.5
35-44	(n = 3687)	(n = 665)	(n = 4352)	(n = 147)	(n = 27)	(n = 174)	(n = 88)	(n = 19)	(n = 107)
Mean	55.1	41.0	52.9	45.5	32.3	43.4	66.9	60.4	65.8
SD	14.7	19.3	16.3	11.7	15.1	13.2	29.2	32.2	29.9
45-54	(n = 2120)	(n = 277)	(n = 2397)	(n = 146)	(n = 22)	(n = 168)	(n = 67)	(n = 12)	(n = 79)
Mean	55.4	43.0	53.9	46.4	34.6	44.8	73.3	54.5	70.4
SD	17.2	20.4	18.0	13.6	18.2	14.8	27.4	25.9	28.0
55-59	(n = 991)	(n = 113)	(n = 1104)	(n = 62)	(n = 7)	(n = 69)	(n = 35)	(n = 4)	(n = 39)
Mean	54.0	42.5	52.8	41.0	30.7	40.0	67.9	58.3	66.9
SD	17.4	18.6	17.9	10.8	14.0	11.6	22.2	19.3	22.1
60-64	(n = 732)	(n = 59)	(n = 791)	(n = 48)	(n = 6)	(n = 54)	(n = 27)	(n = 1)	(n = 28)
Mean	50.2	38.1	49.3	41.6	29.0	40.2	74.0	96.0	74.8
SD	17.0	15.4	17.1	21.2	14.0	20.9	23.1	0.0	23.0
65-69	(n = 396)	(n = 29)	(n = 425)	(n = 22)	(n = 2)	(n = 24)	(n = 13)	(n = 1)	(n = 14)
Mean	42.8	33.7	42.2	38.6	22.0	37.3	56.5	85.0	58.5
SD	19.2	19.6	19.4	28.6	10.0	27.9	29.9	0.0	29.7
70-74	(n = 221)	(n = 10)	(n = 231)	(n = 11)	(n = 0)	(n = 11)	(n = 2)	(n = 0)	(n = 2)
Mean	36.0	41.0	36.2	30.3	—	30.3	56.0	—	56.0
SD	20.1	34.2	20.9	17.7	—	17.7	4.0	—	4.0
75 ≥	(n = 155)	(n = 13)	(n = 168)	(n = 4)	(n = 0)	(n = 4)	(n = 5)	(n = 0)	(n = 5)
Mean	30.6	36.3	31.0	23.0	—	23.0	57.2	—	57.2
SD	21.1	23.3	21.3	19.9	—	19.9	33.6	—	33.6
No birthdate given	(n = 163)	(n = 27)	(n = 190)	(n = 15)	(n = 2)	(n = 17)	(n = 8)	(n = 1)	(n = 9)
Mean	48.1	45.6	47.8	43.7	17.0	40.5	38.9	100.0	45.7
SD	16.4	16.1	16.4	13.2	0.0	13.4	22.8	0.0	28.9
Total	(n = 12 852)	(n = 2862)	(n = 15 714)	(n = 542)	(n = 99)	(n = 641)	(n = 311)	(n = 58)	(n = 369)
Mean	53.4	43.2	51.6	44.3	31.1	42.2	67.9	58.4	66.4
SD	17.2	17.9	17.8	16.1	16.3	16.8	29.6	29.6	29.8

*Total includes full-time, part-time and semi-retired physicians. Responses are not reported for 170 physicians
†Primary refers to physicians who indicated they spent 60% or more of their time in that activity
‡Mixed = greater than 40% of time and less than 60%
SD = standard deviation

workload that is nearly evenly divided between patient care and other activities.

Physicians who are engaged in an almost equal mix of activities reported working longer hours than those primarily engaged in either one of the other activities. Specialists and general/family practitioners who are involved primarily in patient care reported longer working weeks than did their counterparts engaged in teaching, research and administration. This is true for both men and women.

Across age categories women report working about 10 fewer hours per week than men engaged in patient care. Examining the difference for full-time activity status, women average 5 hours per week fewer than men.

The proportion of physicians located in rural areas varied among the provinces (Table XIV), with 10% of women and 11% of men

practising in rural areas. Of the total, 84.1% are full-time and 4.9% part-time, 2.9% semi-retired, 5.2% retired, and 1.5% engaged in other activities. The level of activity of 1.3% (56) of the rural physicians could not be determined. Women in rural areas are more likely to be working part-time or be semi-retired than full-time, accounting for 32.4% of the part-time/semi-retired physicians and 10.4% of the full-time group.

Of the physicians in population centres larger than 10 000, 84.6% are full-time, 4.9% part-time, 2.7% semi-retired, 5.2% retired, 1.7% in the "other" category and 1.4% undetermined.

Physicians were asked to indicate whether or not the terms "general" or "family" best described their practice. Of the 18 327 respondents who indicated that they were not certified in a specialty recognized by the Royal College of Physicians and

Surgeons of Canada and/or la Corporation professionnelle des médecins du Québec, 12 276 (67%) agreed that their practice was best described as general practice or family practice, 2411 (13%) did not agree

Table XIV—Proportion of family practitioners and specialists practising in urban and rural locations by province, November 1982

Province of residence	General practitioners		Specialists	
	Urban	Rural	Urban	Rural
NF	54.4	45.6	89.4	10.6
PEI	62.7	37.3	94.1	5.9
NS	68.7	31.3	90.6	9.4
NB	64.4	35.6	92.2	7.8
PQ	79.0	21.0	96.6	3.0
ON	87.8	12.2	97.5	2.5
MB	79.1	20.9	95.8	4.2
SK	67.4	32.6	95.0	5.0
AB	77.0	23.0	94.1	5.9
BC	86.7	13.3	96.5	3.5
NWT/YT	51.2	48.8	66.7	33.3

Table XIII—Total* mean hours worked per week by specialists by their primary† activity, by gender, by age, November 1982

Age categories	Engaged in patient care			Engaged in teaching, research, administration			Mixed patient care and teaching, research, administration‡		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<35	(n = 1670)	(n = 453)	(n = 2123)	(n = 114)	(n = 41)	(n = 155)	(n = 94)	(n = 27)	(n = 121)
Mean	57.0	47.4	55.0	52.1	44.8	50.2	69.1	59.6	67.0
SD	15.3	15.5	15.8	15.2	16.8	15.9	27.6	24.2	27.2
35-44	(n = 4199)	(n = 568)	(n = 4767)	(n = 262)	(n = 56)	(n = 318)	(n = 309)	(n = 28)	(n = 337)
Mean	56.6	46.6	55.4	52.2	48.7	51.6	62.6	52.0	61.7
SD	14.7	16.5	15.2	19.4	19.9	19.6	23.1	18.7	22.9
45-54	(n = 4102)	(n = 360)	(n = 4462)	(n = 330)	(n = 30)	(n = 360)	(n = 305)	(n = 23)	(n = 328)
Mean	55.7	46.7	55.0	49.7	40.0	48.9	64.6	52.7	63.8
SD	16.5	16.3	16.7	24.3	22.2	24.3	23.4	20.5	23.4
55-59	(n = 1766)	(n = 142)	(n = 1908)	(n = 171)	(n = 15)	(n = 186)	(n = 139)	(n = 12)	(n = 151)
Mean	54.0	44.8	53.4	44.3	34.3	43.5	64.1	59.8	63.7
SD	25.1	16.9	24.7	17.1	11.4	16.9	20.8	23.4	21.1
60-64	(n = 1264)	(n = 72)	(n = 1336)	(n = 141)	(n = 12)	(n = 153)	(n = 87)	(n = 6)	(n = 93)
Mean	49.3	45.2	49.0	43.2	31.5	42.3	61.8	52.5	61.2
SD	16.7	17.1	16.7	17.7	13.0	17.7	26.2	26.3	26.3
65-69	(n = 740)	(n = 25)	(n = 765)	(n = 65)	(n = 2)	(n = 67)	(n = 29)	(n = 2)	(n = 31)
Mean	39.4	39.8	39.4	32.8	18.0	32.4	48.1	85.0	50.5
SD	18.9	22.1	19.0	20.6	17.0	20.7	27.9	5.0	28.5
70-74	(n = 311)	(n = 11)	(n = 322)	(n = 22)	(n = 2)	(n = 24)	(n = 16)	(n = 0)	(n = 16)
Mean	34.3	27.2	34.0	26.6	10.0	25.2	32.2	—	32.2
SD	47.6	17.0	46.9	15.8	6.0	15.9	19.8	—	19.8
75≥	(n = 174)	(n = 8)	(n = 182)	(n = 15)	(n = 1)	(n = 16)	(n = 9)	(n = 1)	(n = 10)
Mean	25.6	17.8	25.3	16.1	13.0	15.9	31.8	33.0	31.9
SD	17.2	12.3	17.1	10.5	0.0	10.2	32.3	0.0	30.6
No birthdate given	(n = 136)	(n = 22)	(n = 158)	(n = 15)	(n = 1)	(n = 16)	(n = 8)	(n = 3)	(n = 11)
Mean	54.6	47.8	53.7	46.7	32.0	45.8	65.0	53.3	61.8
SD	32.1	15.7	30.5	15.4	0.0	15.3	15.1	28.6	20.4
Total	(n = 14 362)	(n = 1661)	(n = 16 023)	(n = 1135)	(n = 160)	(n = 1295)	(n = 996)	(n = 102)	(n = 1098)
Mean	53.7	46.3	52.9	47.0	42.2	46.4	62.8	55.6	62.1
SD	19.6	16.5	19.5	21.1	19.8	21.0	24.5	22.6	24.4

*Total includes full-time, part-time and semi-retired physicians. Responses are not reported for 195 physicians

†Primary refers to physicians who indicated they spent 60% or more of their time in that activity

‡Mixed = greater than 40% of time and less than 60%

SD = standard deviation

and the remaining 3640 (20%) did not answer the question or gave inconsistent replies. Of those who said "yes", 7231 (59%) reported engaging in anesthesia, surgery, or occupational or industrial medicine (Table XV). These physicians mostly reported assisting in surgery (46.3%), although nearly 19% spent some time doing occupational or industrial medicine anesthesia (an average of 9.5 hours per week). More than half (56.5%) of the total reported doing obstetrical deliveries as part of their practice: an average of nearly 32 deliveries per year although there was considerable variation in the number of deliveries reported.

The 2411 physicians who responded that a discipline other than family medicine or general practice best described their practice provided patient care in 67 disciplines. The six major disciplines represented about 50% of the responses (Table XVI), with nearly 19% of physicians providing emergency medicine.

Discussion

To date, Canadian reports on physician supply have dealt almost exclusively with numbers of physicians as specifics about practice patterns — the types of practice and hours of work — have been missing. The data suggest that 84.1% of licensed physicians in Canada are currently working full-time, while an additional 7.8% work part-time or are semi-retired; therefore, about 92% of licensed physicians are supplying medical services. We acknowledge some arbitrariness in the definition of full-time work (40 hours per week during 40 weeks of the year), however, the categories reflected a natural division in the data reported by physicians and are consistent with their declared activity status.

Differences in the level of activity of male and female physicians are seen across age categories. Women working full-time tend to work fewer hours per week than men. A larger percentage of women than men work part-time and are temporarily not practising medicine. Women retire earlier and fewer continue to work beyond normal retirement age. If the trends observed in

these cross-sectional data also describe longitudinal trends, the number of hours of work done per year by the average physician in the pool will decrease over time as more women enter into the total physician supply. There is already some evidence that hours of work are generally decreasing.^{5,6}

During the 1970s family medicine was promoted as a career and residency training programs became available. Since then, general practice and family medicine have attracted a high proportion of medical graduates. The data suggest that these fields were the career choice of nearly three out of four new physicians. This figure may be inflated as young physicians preparing for careers as specialists might still be in postgraduate training and would be excluded from the analysis. There is also some evidence that recently-trained specialists are more likely to leave Canada than are their class-

mates who become general or family practitioners.⁷ However, the preference for primary care practice among young physicians has reduced the proportion of young physicians in specialty fields. A number of physicians who eventually enter general practice or family medicine may choose to specialize later. Again, only longitudinal data following this cohort will indicate whether they will continue to be over-represented in these primary care fields.

Several specialties face potential shortages in the next decade with 20% or more of specialists reaching retirement age during this period. As the numbers of physicians entering these fields has dwindled, efforts must be made to attract new physicians. Perhaps recognizing the need in these areas will stimulate new medical graduates to move into the specialties, but past experience suggests that opening new postgraduate

Table XV—Time (h/week) in anesthesia, surgery and occupational/industrial medicine and mean obstetrical deliveries per year by general practitioners who agreed "general practice" or "family practice" best described their practice, November 1982

Category	GPs reporting general practice with some work in specialty		Time in specialty (h/week or deliveries/yr)	SD
	Number	% of total GPs in "general practice"*		
Anesthesia	909	7.4	9.5	10.7
Surgery (in operating room)	5679	46.3	4.0	5.6
Occupational/industrial medicine	2308	18.8	9.2	13.4
Total†	7231	58.9	7.3	10.3
Obstetrical deliveries	6932	56.5	31.6	29.8

*Total = 12 276 who agreed family or general practice best described their practice

†This total is discrete individuals who reported having worked in any of the 3 specialty categories. An additional 1974 individuals reported obstetrical deliveries

SD = standard deviation

Table XVI—Time spent in six specialties by general practitioners who did not agree "general practice" or "family practice" best described their practice, November 1982

Discipline	GPs reporting specialty practices		Time (h/week)	SD
	Number	% of total*		
Emergency medicine	452	18.7	47.9	14.5
Psychiatry	237	9.8	45.9	15.4
Internal medicine	186	7.7	58.7	18.4
Anesthesia	141	5.8	52.2	15.1
Pediatrics	110	4.6	51.5	19.0
General surgery	74	3.1	63.4	24.0

*Total = 2411 general practitioners who did not agree "general" or "family practice" best described their practice

SD = standard deviation

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Prescribing Information

ACTION

Vibramycin is a broad spectrum antibiotic and is active against a wide range of gram-negative and gram-positive organisms. Vibramycin exerts its antimicrobial effect by inhibition of protein synthesis. There is evidence to suggest that oral Vibramycin, because of its rapid and almost complete absorption, may have less effect on the gut flora than other tetracyclines. Hinton (1968) has reported that the normal dosage regimen of tetracycline HCl administered to 17 volunteers was associated with important effects on the intestinal flora in terms of both changes in total population and the emergence of resistant strains. Large doses of oral Vibramycin (double the maximum recommended dosage) had to be administered to produce an equivalent effect. In a similar number of volunteers, however, administration of the normal dosage regimen of oral Vibramycin was associated with substantially less effect on gut flora. Barteaux (1968) noted that the gut flora of patients on various dosages of oral Vibramycin for 10-80 days showed no significant deviation from the normal flora or from the flora of a control group of patients. These data suggest that microbiological intestinal complications (e.g., diarrhea) associated with tetracycline therapy may be less frequent when ordinary therapeutic doses of doxycycline are used.

INDICATIONS AND CLINICAL USE

Oral Vibramycin is indicated for the treatment of respiratory infections such as single and multiple pneumonia, broncho-pneumonia, bronchitis, sinusitis, pharyngitis, tonsillitis, and otitis media caused by susceptible strains of *β*-hemolytic *Streptococcus*, *Staphylococcus*, *Pneumococcus*, *H. influenzae*, *Klebsiella pneumoniae* and *Mycoplasma pneumoniae*.

CONTRAINDICATIONS

Vibramycin is contraindicated in individuals who have shown hypersensitivity to tetracyclines.

WARNINGS

As with other tetracyclines, Vibramycin may form a stable calcium complex in any bone-forming tissue, though *in vitro* it binds calcium less strongly than other tetracyclines. Though not observed in clinical studies to date, it should be anticipated that like other tetracyclines the use of Vibramycin during tooth development (last trimester of pregnancy, during lactation, neonatal period and early childhood) may cause discoloration of the teeth. Though more commonly associated with long-term use of tetracyclines, this effect has also been known to occur after short courses.

PRECAUTIONS

In clinical studies to date, Vibramycin administration did not lead to increased serum levels nor to an increase in the serum half-life of doxycycline in patients with impaired renal function. Vibramycin in normal dosage may be used to treat these patients. Although no evidence of increased toxicity has been observed in such patients, the potential for increased hepatic or other toxicity should be considered until further data on the metabolic fate of doxycycline under these conditions become available. Liver function tests should be carried out at regular intervals on patients receiving high doses for prolonged periods of time. Concurrent administration of Vibramycin and agents known to be hepatotoxic should be avoided if possible. The use of antibiotics may occasionally result in overgrowth of non-susceptible organisms; thus, observation of the patient is essential. There is evidence to suggest that Vibramycin, may have less effect on the gut flora than other tetracyclines. Vibramycin should not be administered

to pregnant and lactating women or neonates until its safety in such cases has been established beyond all reasonable doubt, unless in the judgment of the physician the potential benefit to the patient outweighs the risk to the fetus or child. Certain hypersensitive individuals may develop a photodynamic reaction to sunlight during treatment with Vibramycin. If this or any other allergic reaction should occur, medication should be discontinued. Increased intracranial pressure with bulging fontanelles has been observed in infants receiving therapeutic doses of tetracycline. Although the mechanism of this phenomenon is unknown, the signs and symptoms have disappeared rapidly upon cessation of treatment with no sequelae.

ADVERSE REACTIONS

As with other broad-spectrum antibiotics, gastrointestinal disturbances such as nausea, vomiting and diarrhea, as well as glossitis, stomatitis and proctitis may occur, but have rarely been sufficiently troublesome to warrant discontinuation of therapy. As with other tetracyclines, elevation of SGOT or SGPT values, anemia, neutropenia, eosinophilia, leukopenia or elevated BUN has been reported, the significance of which is not known.

SYMPTOMS and TREATMENT OF OVERDOSAGE

Gastric lavage if necessary.

DOSAGE AND ADMINISTRATION

The recommended dosage of oral Vibramycin in adults for the majority of susceptible infections is a single loading dose of 200 mg on the first day of treatment followed by a maintenance dosage of 100 mg once daily at the same time each day thereafter. The recommended dosage schedule for children over one month weighing up to 50 kg is a single loading dose of 5 mg/kg of body weight on the first day, followed by a maintenance dosage of 2.5 mg/kg once daily at the same time each day thereafter. As absorption is not significantly affected by food or milk, Vibramycin should be given with or after a meal thus minimizing the possibility of gastric upset. Antacids and iron preparations impair absorption and should not be given concomitantly to patients taking oral Vibramycin. In severe infections in adults, such as lung abscesses or osteomyelitis, and in chronic urinary tract infections, a single daily dose of 200 mg may be used throughout. For more severe infections in children, up to 5 mg/kg of body weight may be given. Therapy should be continued after symptoms and fever have subsided. It should be noted, however, that effective antibacterial levels are usually present 24 to 36 hours following discontinuance of Vibramycin therapy. When used in streptococcal infections, therapy should be continued for 10 days to prevent the development of rheumatic fever or glomerulonephritis. No alteration in recommended dosage schedule need be made when treating patients with impaired renal function.

DOSAGE FORMS

Vibramycin capsules are available as 100 mg (blue) hard gelatin capsules containing doxycycline hyclate equivalent to 100 mg of doxycycline, supplied in bottles of 50 and 200. Vibramycin for oral suspension (doxycycline monohydrate) is available as a dry powder for oral suspension containing, when reconstituted, doxycycline monohydrate equivalent to 25 mg of doxycycline/5 mL (each teaspoonful) with a pleasant raspberry flavor in 50 mL bottles.

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training programs may not bring about more entrants.⁸

This paper presents an overview of data available in the CMA physician resource databank. The work status information provided by the databank should refine physician availability estimates and participation rates in the labour force. Such information will be useful to sharpen current manpower estimates and projections of supply for future manpower planning activities. The physician resource databank allows careful examination of physician availability within various medical specialties and subspecialties. Further reports will highlight specific areas of practice.

Continuous updating of demographic data contained in the databank as well as 2-year surveys targeted to examine changing practice patterns and a 4-year census cycle to update the complete databank will produce longitudinal data, in turn, producing a dynamic picture of the medical manpower pool.

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