

# HEALTH PERSONNEL DATABASE



HEALTH PERSONNEL

IN CANADA

1988 TO 1997



Canadian Institute  
for Health Information

# **Health Personnel in Canada, 1988 to 1997**

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# Health Personnel in Canada 1988 to 1997

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## Introduction

*Health Personnel in Canada, 1988 to 1997* is a reference document produced by the Canadian Institute for Health Information (CIHI) to assist health services planning and research. By providing time-specific personnel information for a number of health occupations, this publication may be used by governments, academics, professional health organizations, and researchers to better understand Canadian health system employment trends.

This edition is the first to be published since 1995. Prior to that date, the *Health Personnel in Canada* publication was the responsibility of the Health Information Division at Health Canada. This last edition provided statistics on 31 occupational groups of health care professionals for the period of 1982 to 1992. In this new release of *Health Personnel in Canada, 1988 to 1997*, CIHI has attempted to maintain continuity with previous editions, while providing additional information to enhance the value and utility of the publication. For example, a brief description of the types of activities undertaken by each of the health occupations is now included.

This publication contains information on 18 health occupations in Canada. Each section contains, at a minimum, the number of members of the professional organization and the population per member, by province or territory. More detailed information is provided where possible. Data were obtained from a variety of sources, including professional associations, regulatory bodies, Statistics Canada and individual educational institutions.

Figure 1 outlines the 31 groups included in previous editions, and identifies the 18 groups included in this publication (X).

Audiologists/Speech Pathologist	Opticians
Biomedical Engineers	Optometrists X
Chiropractors X	Orderlies
Dental Assistants	Osteopaths
Dental Hygienists X	Pharmacists X
Dental Therapists	Physicians X
Dentists X	Physicists in Medicine
Dietitians X	Physiotherapists X
Electroneurophysiology Technologists	Podiatrists
Health Record Professionals X	Psychologists X
Health Service Executives X	Public Health Inspectors
Licensed Practical Nurses X	Registered Nurses X
Medical Laboratory Scientists	Respiratory Therapists X
Medical Laboratory Technologists X	Social Workers X
Medical Radiation Technologists X	Veterinarians
Occupational Therapists X	

**Figure 1. Health Occupations Included in *Health Personnel in Canada, 1988 to 1997***

## Methodology

### Data Collection Process

In 1998, CIHI began preparations for developing an updated version of the *Health Personnel in Canada* publication.

Health professional data for 1988 to 1992 were carried forward from the last edition of the *Health Personnel in Canada* publication; CIHI requested data for 1993 to 1997 from national and provincial/territorial professional organizations, governments, and educational institutions. Information on the number of graduates for some professional groups (e.g. physiotherapists and occupational therapists) was purchased from Statistics Canada, which collects information from these groups on an annual basis. Information for registered nurses and physicians was available through other data holdings at CIHI.

To begin the data collection process, CIHI acquired the names and addresses of potential data providers through a variety of sources. A primary list of national health organizations was located, which served as the starting point for most of the subsequent provincial contacts. Data collection was organized so that data were requested from national and provincial organizations first. Subsequent to this step, information requests were sent to universities and colleges providing professional health programs.

Information was requested from the various organizations and schools for the years 1993 to 1997, as of December 31<sup>st</sup> of each year. Follow-up contact was made where possible. In some cases, no response was received from the organization or school; in other cases, the information was not available.

### Data Provided

Due to a lack of data, not all of the occupational groups included in previous publications are part of this edition. Not all professional organizations keep historical records, thus some organizations were only able to provide current year information. For others, there is no central regulatory body that collects yearly membership data. Where feasible, estimates have been obtained from individual organizations. As a result of missing data, 13 of the 31 health professions included in the 1992 edition have been removed from this publication. CIHI will be working with national and provincial organizations and educational institutions to ensure that information is captured and stored annually, with the intent of improving the comprehensiveness of data in future editions.

### Data Limitations

Given the variety of data sources and the differences in the level of detail available from these sources, and the fact that much of this information was collected initially for specific administrative rather than statistical purposes, caution must be used in applying the data to particular analyses. For example, in an analysis of employment levels, use of data based on registration levels may overstate current active employment numbers when membership with a regulatory body is required for employment. Those professionals temporarily out of the work force, or out of the province or country, may maintain their registration to



maintain continuity. Some of the regulatory bodies collect 'active' employment information, but not all do.

Similarly, when membership in a professional organization is voluntary, the number of health professionals may be underrepresented. If there is no obligation for a member of the health profession to register with the professional organization, a certain percentage will not join. As a result, the memberships vary between years, between groups, and between jurisdictions.

In general, regulated health professional bodies are able to provide more complete and accurate data. In addition, health professional groups that have been regulated for a longer period of time tend to have more established data collection processes than groups that have become regulated recently. For these reasons, the groups included in this publication reflect the larger and more established occupations.

The number of graduates from various health training programs may also be underestimated in the tables. For some professions, not all post-secondary institutions provided information regarding programs and graduates. These instances are clearly identified in the footnotes of the corresponding tables. In addition, the reference periods of the available data are not always uniform. In some cases, only estimates were available when this edition was prepared and these may be subject to future revisions.

## Data Sources and Collection

### Descriptions of Health Occupations

Occupational descriptions have been provided for each type of health personnel. These descriptions have been adapted from Human Resources Development Canada's *National Occupational Classification* (see web site <http://www.eoa-hrhc.com/3519/menu/occnoc.stm>), adapted with the permission of the Minister of Public Works and Government Services Canada, 2000. The descriptions are intended to provide general information regarding the health profession and may not include all specific activities undertaken by that profession. In addition, information regarding education requirements, licensure, and registration of health professionals is not provided.

Individuals interested in educational requirements should visit the Human Resources Development Canada *Canlearn* web site (<http://canlearn.ca>). This site provides a more complete picture of the universe of available Canadian educational programs and institutions for health professions.

Those interested in licensure or registration information should contact the relevant provincial or national organization.

### Population Data

Population per health professional data is based on population estimates from Statistics Canada. The population estimates reflect revisions based on the results of the 1996

Census, and as a result the population per health professional shown in the current publication differs from the figures provided in previous publications. Population figures for Canada and each province/territory are provided in Appendix A.

The population per health professional figure provides one means of measuring the relative growth of the health professional group. It does not provide an indication of whether or not there are sufficient or insufficient numbers of health professionals.

## **Total Number of Health Personnel in Canada**

A comparative estimate of the total number of Health Personnel in Canada was derived from Statistics Canada's Labour Force Survey.

The Labour Force Survey (LFS) is a household survey carried out monthly by Statistics Canada, which is representative of the Canadian non-institutional population 15 years of age and older. Survey coverage excludes residents of institutions (including long-term care health facilities), members of the Canadian armed forces, persons living on Indian Reserves and those in the Northwest Territories and the Yukon. The survey uses a reference week concept to measure labour market activity, and the reference week is typically the week containing the fifteenth day of the month. More information on the LFS can be found at <http://www.statcan.ca/english/IPS/Data/71-543-GIE.htm>.

The LFS data included in this publication is an annual average of 12 months of data.

## **Estimation**

Where feasible, estimates were obtained from individual organizations. In circumstances where such estimates could not be obtained, and where appropriate, CIHI produced estimates. In all cases CIHI estimates were prepared by applying the average Canadian growth-rate over the previous four years. In the tables, CIHI estimates are *italicized* and footnoted.

## **General Notes**

### **Data Definitions and Comparability**

Before making comparisons between health occupations, it is important to review the title of the table or chart, and to carefully read the footnotes. These provide information regarding the group or sub-group of health personnel that is captured in the table. For instance, a table including data for all members of a health personnel group (e.g. active, inactive, retired and honorary) will not be directly comparable to a table that includes only data on active members.

### **Data Suppression**

Protective privacy and confidentiality guidelines at CIHI prohibit the release of person or institute identifiable data; as a result, table cells with a population of less than 5 have been suppressed in this publication. In addition, in each table with a suppressed cell, a second

cell has been suppressed in the same column. While this often results in a cell greater than 5 being suppressed, it ensures both individual anonymity and an accurate Canadian total. Consequently, the column sum will often not equal the Canadian total presented. In all cases, the Canadian total is accurate.

For more information regarding CIHI's privacy and confidentiality guidelines, please visit the CIHI web site at <http://www.cihi.ca/weare/pcsmain.htm>.

## Footnotes and Symbols

Standard symbols and numerical presentations are used whenever possible in this report. The symbols include:

- .. *Information not available*
- \* *Amount too small to be expressed*
- *Nil or zero*

Blank cells indicate that information does not exist for that particular cell. In Table 19.1, for example, Newfoundland, Prince Edward Island, New Brunswick, and Nova Scotia data is aggregated from 1988 to 1992.

The footnotes were added chronologically and therefore follow the sequence of the years, from left to right. Where the footnote is beside the province or institutional name, the information applies to all years in that row.

## Health Personnel in Canada

### Legislative/Regulatory Changes in the Health System

Table 1 illustrates those health occupations regulated by provincial legislation in Canada.

**Table 1. Inter-Provincial Survey of Health Occupations with Provincial/Territorial Legislation**

Health Profession	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Total
Dental Hygienists	*	*	*	*	*	*	*	*	*	*	*	*	12
Dentists	*	*	*	*	*	*	*	*	*	*	*	*	12
Licensed Practical Nurses/ Nursing Assistants	*	*	*	*	*	*	*	*	*	*	*	*	12
Physicians <sup>1</sup>	*	*	*	*	*	*	*	*	*	*	*	*	12
Optometrists	*	*	*	*	*	*	*	*	*	*	*	*	12
Pharmacists	*	*	*	*	*	*	*	*	*	*	*	*	12
Registered Nurses	*	*	*	*	*	*	*	*	*	*	*	*	12
Chiropractors	*	*	*	*	*	*	*	*	*	*	*		11
Denturists	*		*	*	*	*	*	*	*	*	*	*	11
Psychologists	*	*	*	*	*	*	*	*	*	*		*	11
Ophthalmic Dispensers/Opticians	*	*	*	*	*	*	*	*	*	*			10
Physical Therapists/ Physiotherapists	*	*	*	*	*	*	*	*	*	*			10
Dental Technicians/Technologists	*	*	*	*	*	*		*	*	*			9
Dietitians and Nutritionists	*	*	*	*	*	*	*	*	*				9
Occupational Therapists	*	*	*	*	*	*	*	*	*	2			9
Certified Dental Assistants	*	*	*	*	*		*	*	*	*			8
Social Workers	*	*	*	*	*			*	*	*			8
Chiropodists/Podiatrists				*	*	*	*	*	*	*			7
Medical Radiation Technologists		*	*	*	*	*		*	*				7
Hearing Aid Practitioners/ Acousticians	*				*		*	*	*	*			6
Medical Laboratory Technologists				*	*	*		*	*				5
Naturopathic Physicians						*	*	*	*	*			5
Respiratory Therapists					*	*	*		*	*			5
Speech Language Pathologists and Audiologists				*	*	*	*	*	2				5
Dental Therapists							*	*			*	*	4
Midwives	*					*	2		*	*			4
Psychiatric Nurses							*	*	*	*			4
Osteopathic Physicians							*	*	*	*			4
Acupuncturists					*				*	*			3
Emergency Medical Technicians		*				*			*				3
Certified Combined Laboratory Technologists									*				1
Public Health Inspectors													0
<b>TOTAL</b>	<b>19</b>	<b>18</b>	<b>18</b>	<b>21</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>26</b>	<b>29</b>	<b>23</b>	<b>10</b>	<b>10</b>	

#### Notes

1. includes both Family Physicians and Specialist Physicians
2. legislation forthcoming

#### Source

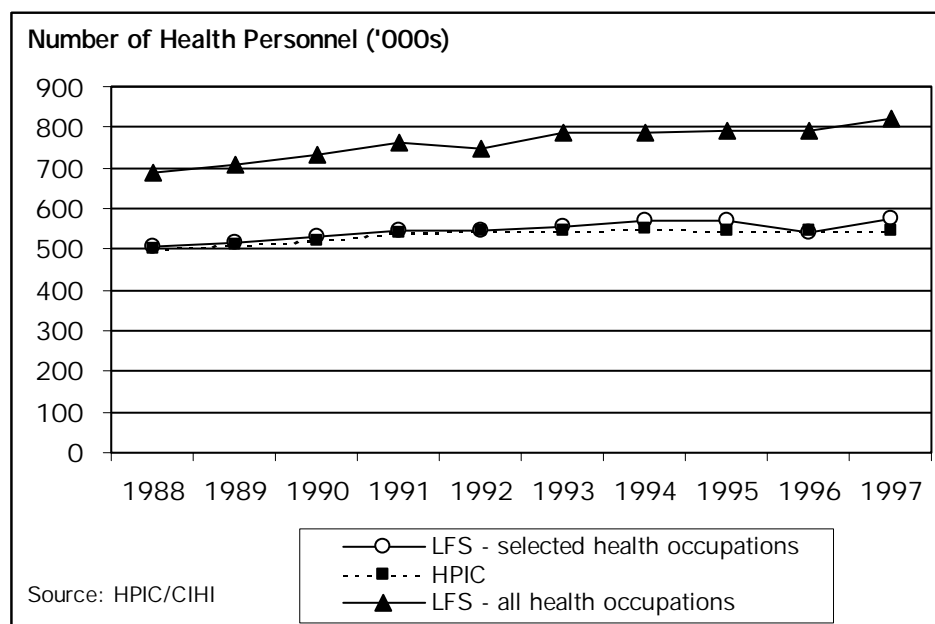
Health Canada, Health Promotion and Programs Branch  
September 1998

For health professional groups across Canada, many legislative and regulatory changes occurred, or began to occur, during this ten-year period. Prior to 1990, for instance, the Alberta Dental Association maintained a register of dental hygienists in Alberta; however, there was no requirement for dental hygienists to be registered. In November 1990, the *Dental Disciplines Act* was established with the requirement that all dental hygienists practicing in Alberta be registered with the Alberta Dental Hygienists Association.

Some of the legislative changes have resulted in part due to the restructuring of the health system. To some degree restructuring has meant changes in the scope of practice of many health professions. Another major influence on the legislation relating to health professionals has been the 1994 Agreement on Internal Trade. Many health professional groups are moving towards greater consistency in education, registration and other professional requirements in order to facilitate inter-provincial movement and to provide them with a stronger presence at the national table and in international activities.

## Total Number of Personnel

The total number of health personnel in Canada is a difficult number to determine precisely. The 18 health occupations included in *Health Personnel in Canada, 1988 to 1997* represent some, but by no means all, of the health professions regulated to practice in Canada. In addition, estimating the number of health personnel in Canada based on only regulated health professions excludes unregulated health professions.



**Figure 2. Total Number of Health Personnel in Canada, Labour Force Survey and Health Personnel in Canada data, 1988–1997**

Figure 2 illustrates estimates of the total number of health personnel in Canada from two data sources: Health Personnel in Canada (HPIC) and the Labor Force Survey (LFS). In Figure 2, 'LFS – selected health occupations' represents Labour Force Survey estimates of

health personnel employed in the 18 occupational groups included in this publication. 'LFS – all health occupations' represents Labour Force Survey estimates of health personnel employed in all health and health-related occupations. Appendix B lists the 1991 Standard Occupational Classification (SOC) codes included in the LFS data presented in Figure 2; Appendix C provides a detailed breakdown of all occupations included under 'Health Occupations' in the 1991 SOC Codes. A complete listing and description of SOC codes can be found on the Statistics Canada web site at <http://www.statcan.ca/english/Subjects/Standard/soc/soc.htm>.

The difference between 'LFS – selected health occupations' and 'LFS – all health occupations' represents those health professionals for whom information is not collected for the *Health Personnel in Canada* publication. As presented in Appendix C, this group includes occupations from all health categories; professional occupations such as veterinarians and audiologists, technical occupations such as medical sonographers, cardiology technologists, denturists, and midwives, and assisting health occupations such as dental assistants and orderlies are not included in this publication. In addition, this publication does not include data on unregulated professions such as health care aides or kinesiologists.

HPIC counts of health personnel in Canada (HPIC in Figure 2) are very similar to the LFS estimates for the same time period (LFS – selected health occupations in Figure 2). For the HPIC data, the total number of health personnel in Canada has increased 9.6% over this ten-year period, from 502,128 in 1988 to 550,255 in 1997. For the same 18 groups, the Labour Force Survey data presents an increase of 13.3%, from 508,900 in 1988 to 576,700 in 1997.

The second set of Labour Force data (LFS – all health occupations in Figure 2), represents estimates of those employed in an expanded range of health occupations. From these data, the number of persons employed in health occupations increased 19.1% over this ten-year period, from 688,600 in 1988 to 820,400 in 1997.

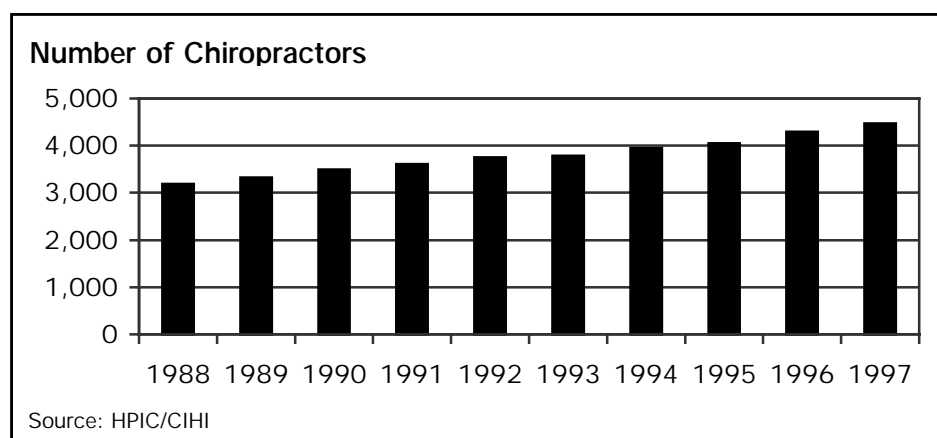
## Health Occupations

### Chiropractors

#### *Description*

Chiropractors diagnose health disorders involving the body's structure, particularly the spine, and the functioning of the nervous system. General duties of a chiropractor include: taking a patient's case history; conducting a physical examination; observing the patient; taking or ordering x-rays and other tests to diagnose patient's condition; diagnosing disorders of the spine and other body joints; treating patients whose symptoms result from abnormal musculoskeletal conditions or joint mechanics through the corrective manipulation of the spinal column or other joints and through additional treatments such as heat, light and massage; and advising patients on corrective exercises, lifestyle and nutrition. Most chiropractors work in private practice.

#### **Analysis**



**Figure 3. Number of Licensed Chiropractors, Canada, 1988–1997**

As shown in Figure 3, the number of licensed chiropractors increased steadily from 1988 to 1997. There was a 40.3% increase in the number of licensed chiropractors in Canada over this ten-year period.

Table 2.1 shows the distribution of licensed chiropractors by province from 1988 to 1997. The distribution of chiropractors varies significantly across provinces, although this distribution has remained fairly constant within each province since 1988. In 1997, 45.6% of licensed chiropractors practiced in Ontario, a province with 37.6% of the Canadian population. Comparatively, only 2.1% of chiropractors practiced in Atlantic Canada, comprising 7.9% of the Canadian population.

The population per licensed chiropractor is shown in Figure 4 and Table 2.2. The increase in the number of licensed chiropractors across Canada has been greater than the population growth, as the population per licensed chiropractor has continued to decrease each year.

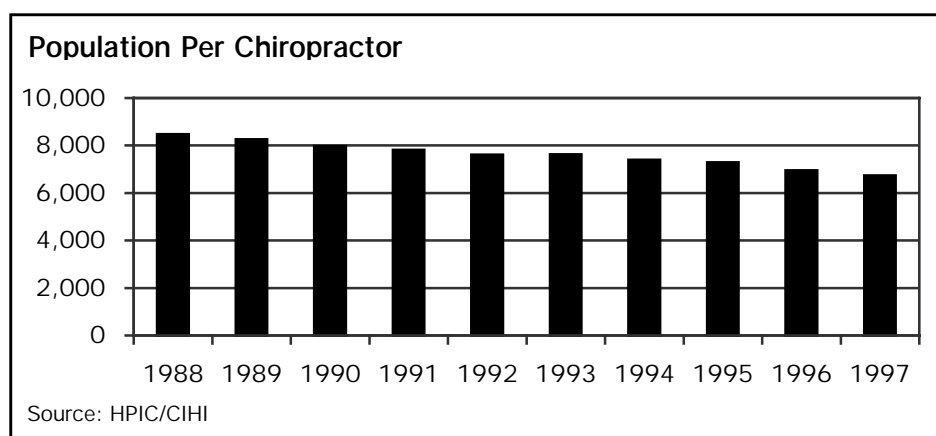


Figure 4. Population Per Licensed Chiropractor, Canada, 1988–1997

The number of graduates from the Canadian Memorial Chiropractic College in Ontario is shown in Table 2.3. From 1988 to 1997, there has been an increase of 12.7% in the number of graduates from this school. A second Canadian chiropractic school has opened at the Université du Québec à Trois Rivières, with its first graduates completing in 1998.

Table 2.1 Number of Licensed Chiropractors by Province/Territory, Canada, 1988–1997

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld. <sup>1</sup>	9	11	11	11	12	12	16	20	20	20
P.E.I.	*	*	*	*	*	*	*	*	*	*
N.S.	24	22	22	22	23	23	24	31	30	34
N.B.	30	32	31	32	31	31	34	34	34	37
Que.	683	695	750	770	790	790	800	820	851	880
Ont.	1,512	1,563	1,610	1,650	1,716	1,752	1,830	1,846	1,999	2,038
Man.	110	110	121	132	140	140	149	159	162	166
Sask.	97	100	112	124	122	122	132	133	136	140
Alta.	327	347	366	375	400	400	436	447	472	499
B.C.	390	435	466	485	510	510	522	553	585	650
Y.T. & N.W.T.	*	*	*	*	*	*	*	*	*	*
Canada	3,188	3,325	3,494	3,605	3,748	3,784	3,947	4,048	4,294	4,472

Source: HPIC/CIHI

Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

1. Until July 1, 1992 chiropractors in Newfoundland were not licensed. The figures from 1988-1992 are the number of practicing chiropractors.



**Table 2.2 Population Per Licensed Chiropractor by Province/Territory and Year, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	63,962	52,412	52,564	52,674	48,414	48,118	35,689	28,215	27,873	27,472
P.E.I.	*	*	*	*	*	*	*	*	*	*
N.S.	37,517	41,226	41,470	41,697	40,088	40,240	38,627	29,989	31,113	27,494
N.B.	24,418	23,042	23,975	23,337	24,144	24,202	22,107	22,127	22,156	20,374
Que.	10,083	10,017	9,378	9,199	9,043	9,102	9,031	8,852	8,571	8,322
Ont.	6,598	6,522	6,434	6,355	6,195	6,136	5,951	5,975	5,589	5,561
Man.	10,014	10,026	9,143	8,411	7,963	8,001	7,556	7,112	7,008	6,845
Sask.	10,530	10,108	8,950	8,074	8,226	8,260	7,666	7,641	7,506	7,308
Alta.	7,570	7,262	7,027	6,968	6,635	6,719	6,241	6,173	5,946	5,754
B.C.	8,100	7,469	7,164	7,060	6,913	7,115	7,160	6,934	6,710	6,144
Y.T. & N.W.T.	*	*	*	*	*	*	*	*	*	*
Canada	8,482	8,263	7,975	7,818	7,617	7,628	7,396	7,290	6,948	6,743

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 2.3 Number of Graduates of Chiropractic Schools, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
CMCC <sup>1</sup> , Toronto	134	136	146	146	138	136	140	146	151	151

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Canadian Memorial Chiropractic College.

**Sources**

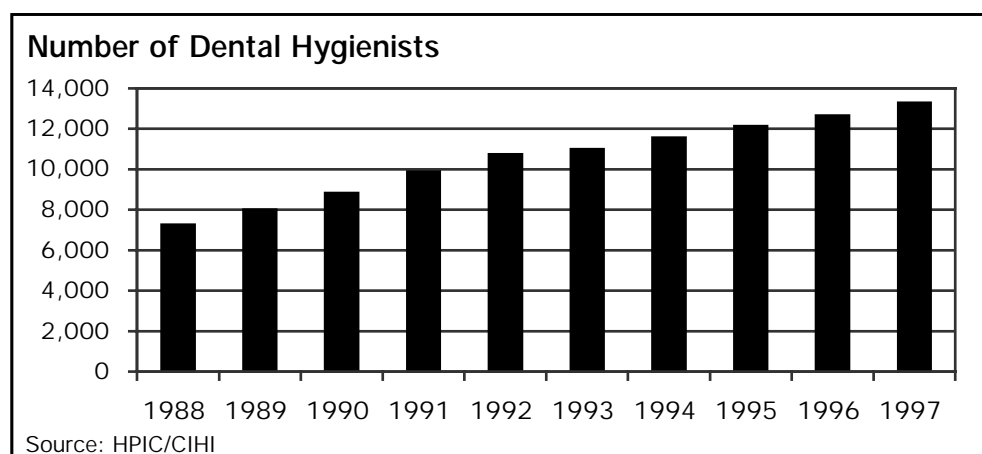
- Figure 3 Calculated from Table 2.1.
- Figure 4 Calculated from Table 2.2.
- Table 2.1 Canadian Chiropractic Association.
- Table 2.2 Data calculated based on Table 2.1 and population estimates from Statistics Canada shown in Appendix A.
- Table 2.3 Canadian Chiropractic Association.

## Dental Hygienists

### *Description*

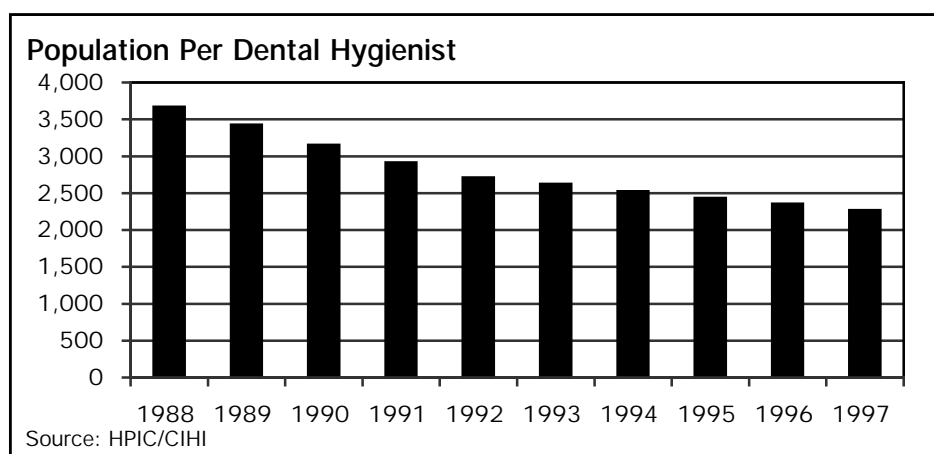
Dental hygienists provide preventive dental services and instruct patients on how to care for their teeth and mouth. Dental hygienists work under the direction of a dentist to clean teeth, polish fillings, take x-rays and do other restorative and orthodontic procedures. General duties of a dental hygienist include: conducting an initial dental assessment and consulting with dentists on patient care; providing dental hygiene treatment and information related to the prevention of diseases and disorders of the teeth and mouth; taking dental impressions and x-rays; and removing stains and deposits from teeth to prevent tooth and root decay. Dental hygienists are primarily employed in dentists' offices, hospitals, clinics, educational institutions, government agencies and private industry.

### *Analysis*



**Figure 5. Number of Licensed Dental Hygienists, Canada, 1988–1997**

As shown in Figure 5, the number of licensed dental hygienists has increased steadily from 1988 to 1997. This represents an 83% increase in the number of licensed dental hygienists over this ten-year period. Table 3.1 shows the distribution of licensed dental hygienists by province from 1997 to 1988. The largest percentage increases over this ten-year period have occurred in British Columbia (131.8%), and Saskatchewan (114.0%).



**Figure 6. Population Per Licensed Dental Hygienist, Canada, 1988–1997**

The population per licensed dental hygienist is shown in Figure 6 and in Table 3.2. As a result of significant increases in the number of licensed dental hygienists, all provinces indicate a steady decrease in the population per dental hygienist rate.

**Table 3.1 Number of Licensed Dental Hygienists by Province/Territory of Licensure, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	28	30	37	38 <sup>1</sup>	44	47 <sup>2</sup>	51 <sup>2</sup>	54 <sup>2</sup>	56 <sup>2</sup>	58 <sup>2</sup>
P.E.I.	20	22	23	24 <sup>1</sup>	30	28	28	30	30	28
N.S.	278	287	317	329	355	318	334	374	396	404
N.B.	94	113	133	146	159	172 <sup>2</sup>	183 <sup>2</sup>	194 <sup>2</sup>	202 <sup>2</sup>	210 <sup>2</sup>
Que.	1,669	1,855	2,100	2,575	2,800 <sup>1</sup>	2,595	2,736	2,951	3,105	3,292
Ont.	3,264	3,547	3,857	4,186	4,506	4,890	5,069	5,170	5,392	5,637
Man.	372	397	413	428	455	458	469	498	513	517
Sask.	121	137	148	168	190	205 <sup>2</sup>	219 <sup>2</sup>	232 <sup>2</sup>	242 <sup>2</sup>	259 <sup>2</sup>
Alta. <sup>3</sup>	682	730	830	930	1,000 <sup>1</sup>	903 <sup>4</sup>	974 <sup>4</sup>	1,046 <sup>4</sup>	1,101 <sup>4</sup>	1,168 <sup>4</sup>
B.C.	726	878	960	1,048	1,196	1,363	1,479	1,562	1,593	1,683
Y.T. & N.W.T.	7	8	14	9	11	14	15	22	25	27
Canada	7,261	8,004	8,832	9,881	10,746	10,993	11,557	12,133	12,655	13,284

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Estimate.
- 2. CIHI estimate.
- 3. The Alberta Dental Hygienists Association began registering dental hygienists as of November 1, 1990. Prior to this, dental hygienists did not have to be registered.
- 4. The figure includes only those members who were actively practicing dental hygiene; it does not include registrants who were out of practice due to maternity or disability leaves during the year.

**Table 3.2 Population Per Licensed Dental Hygienist by Province/Territory of Licensure, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	20,559	19,218	15,627	15,248	13,204	12,161	11,252	10,511	9,956	9,440
P.E.I.	6,500	5,923	5,673	5,442	4,389	4,749	4,800	4,518	4,551	4,879
N.S.	3,239	3,160	2,878	2,788	2,597	2,910	2,776	2,486	2,357	2,314
N.B.	7,793	6,525	5,588	5,115	4,707	4,373	4,099	3,878	3,723	3,584
Que.	4,126	3,753	3,349	2,751	2,551	2,948	2,784	2,653	2,472	2,358
Ont.	2,959	2,863	2,686	2,641	2,479	2,199	2,222	2,010	1,939	1,887
Man.	2,961	2,778	2,679	2,594	2,450	2,446	2,400	2,271	2,213	2,198
Sask.	8,441	7,378	6,773	5,959	5,282	4,915	4,618	4,384	4,222	3,950
Alta.	3,630	3,452	3,099	2,810	2,654	2,976	2,794	2,638	2,549	2,458
B.C.	4,351	3,700	3,478	3,267	2,948	2,662	2,742	2,593	2,513	2,507
Y.T. & N.W.T.	11,888	10,659	6,276	10,109	8,458	6,745	6,419	4,475	3,985	3,690
Canada	3,670	3,427	3,155	2,916	2,711	2,626	2,526	2,432	2,358	2,270

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 3.3 Number of Graduates of Dental Hygiene Schools, by Year and School of Graduation, Canada, 1988–1997<sup>1</sup>**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
Dalhousie University	39	40	37	40	41	42	39	39	39	40
<b>Que.</b>										
Collège Édouard-Monpetit	19	28	21	26	28	23	27	30	25	47
John Abbott College	21	23	29	24	26	24	28	28	36	26
Collège de l'Outaouais	19	30	21 <sup>2</sup>	19	20 <sup>2</sup>	22	21	17	14	20
Cégep de Chicoutimi	..	..	..	..	..	19	26	30	27	29
Cégep de Trois-Rivières	29	28	29	29	31	34	33	25	25	26
<b>Ont.</b>										
Cambrian - Sudbury	14	16	15	16 <sup>2</sup>	23	41	34	45 <sup>3</sup>	24	23
Canadore - North Bay	14	15	15	17	16	15	22	16	15	15
Confederation - Thunder Bay	13	13	16	15 <sup>2</sup>	14	16	16	16	19	16
Durham - Oshawa	25	24	22	23 <sup>2</sup>	24	23	21	23	24	22
Algonquin CAAT - Ottawa	36	36	36	38	38	46	46	48	47	43
Cité collégiale - Ottawa	..	..	..	..	..	11	16	*	18	*
Fanshawe - London	15	16	16	16	16	18	18	17	18	25
Georgian - Barrie	12	9	11	11	11	10	*	14	*	17
Collège Boréal <sup>4</sup>									22	21
Niagara College	12	-	-	-	42	20	31	33	32	- <sup>5</sup>
<b>Man.</b>										
University of Manitoba	23	27	25	26	23	22	23	28	25	26
<b>Alta.</b>										
University of Alberta	38	36	38	42	39	47	63	62	60	48
<b>B.C.</b>										
Camosun College	..	..	..	20 <sup>2</sup>	22 <sup>2</sup>	..	23	21	24	24
Vancouver Community College	20	19	19	20	18	21	18	19	20	17
College of New Caledonia	..	20	16	18 <sup>2</sup>	20	20	20	18	14	23
University of British Columbia	-	-	-	-	-	..	*	*	*	*
<b>Canada</b>	<b>349</b>	<b>380</b>	<b>366</b>	<b>400</b>	<b>452</b>	<b>474</b>	<b>540</b>	<b>544</b>	<b>541</b>	<b>521</b>

Source: HPIC/CIH

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Not all schools in Canada are represented.
- 2. Estimate.
- 3. Figures up to 1995 include students registered in a bilingual program. 1995 was the last year for this program.
- 4. The program for Dental Hygienists began in September 1995, with the first graduates in 1996.
- 5. No graduating class of 1997 due to a change in program length.

## **Sources**

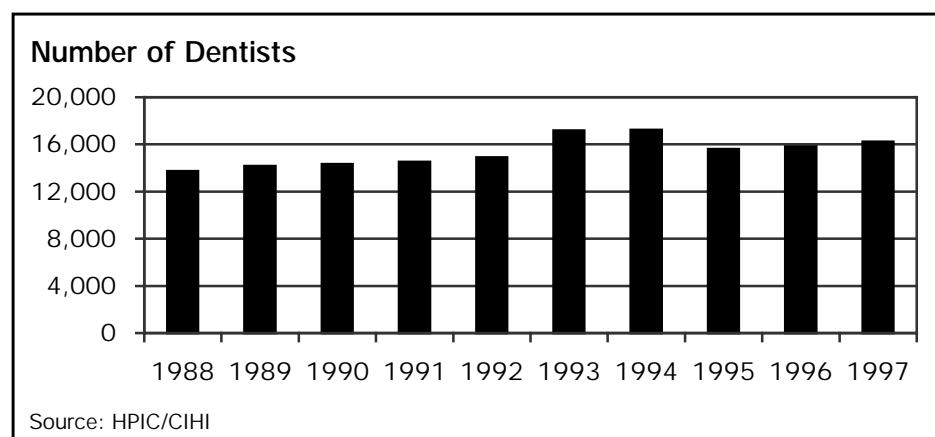
Figure 5	Calculated from data in Table 3.1.
Figure 6	Calculated from data in Table 3.2.
Table 3.1	Provincial Dental Hygienists' Associations (Newfoundland Dental Hygienists, Dental Council of PEI, Provincial Dental Board of Nova Scotia, New Brunswick Dental Society, Ordre des Hygiénistes Dentaires du Québec, College of Dental Hygienists of Ontario, Manitoba Dental Association, Saskatchewan Dental Hygienists' Association, Alberta Dental Hygienists' Association, The College of Dental Hygienists of British Columbia), and the Governments of the Yukon and Northwest Territories.
Table 3.2	Data calculated based on Table 3.1 and population estimates from Statistics Canada shown in Appendix A.
Table 3.3	Individual schools, colleges and universities.

## Dentists

### Description

Dentists diagnose and treat disorders of the teeth and mouth. The main duties of dentists include: examining patients' teeth, gums, and surrounding tissue to diagnose disease, injury and decay and plan appropriate treatment; restoring and extracting diseased and decayed teeth; performing oral surgery, periodontal surgery and other treatments; cleaning teeth and instructing patients on oral hygiene; designing bridgework, fitting dentures and providing appliances to correct abnormal positioning of the teeth and jaws, or writing fabrication instructions or prescriptions for use by denturists and dental technicians; and supervising dental hygienists, dental assistants and other staff. Most dentists work in private practice clinics, hospitals, universities or public health facilities. Some dentists specialize in areas such as oral and maxillofacial surgery, orthodontics, paediatric dentistry, periodontics, endodontics, prosthodontics, oral pathology, oral radiology or public health dentistry.

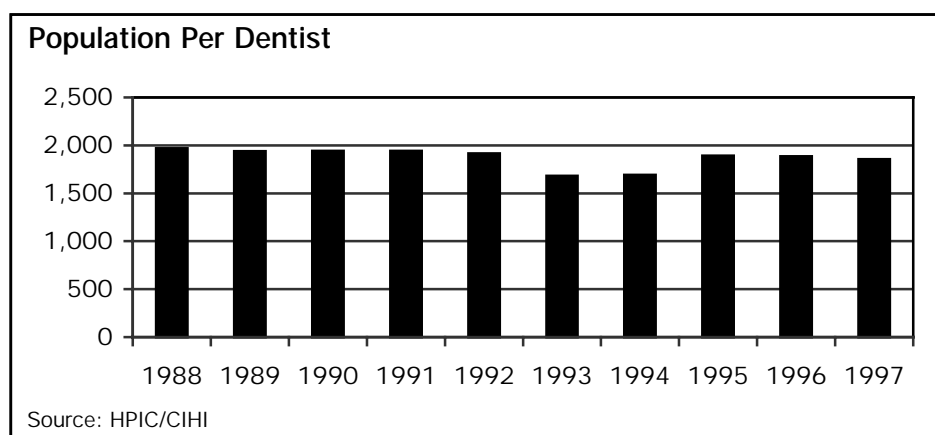
### Analysis



**Figure 7. Number of Licensed Dentists, Canada, 1988–1997**

Figure 7 shows the number of licensed dentists in Canada from 1988 to 1997. The number of licensed dentists in Canada has increased 18.2% in this ten-year period, although an increase has not been experienced in all provinces and territories.

The provincial/territorial distribution of licensed dentists is shown in Table 4.1. Prince Edward Island experienced no change between 1988 and 1997 data, while Manitoba experienced a moderate 1.3% increase. Saskatchewan experienced an 11.3% decrease, while the number of licensed dentists practicing in the Yukon decreased by 18.8%. Significant growth in Québec, Ontario, Alberta, and British Columbia contributed to the overall number of licensed dentists in Canada.



**Figure 8. Population Per Licensed Dentist, Canada, 1988–1997**

Figure 8 and Table 4.2 illustrate the population per licensed dentist in Canada. The 18.2% growth rate of licensed dentists experienced nationally in this reporting period exceeds the growth rate of the general population; as a result, the population per licensed dentist has decreased for Canada. At the provincial/territorial level, the population per licensed dentist has increased where the number of licensed dentists has decreased.

The total number of certified dentist specialists is shown in Table 4.3, with individual specialties highlighted in Tables 4.4 through 4.10. Overall, there has been a 19.2% increase in the number of dental specialists in Canada since 1988. Ontario and Québec (representing 61.9% of the Canadian population), have 65.6% of dental specialists, while Alberta and British Columbia (representing 22.7% of the population) have 22.7% of dental specialists.

The number of dental graduates, by year and by province, is shown in Table 4.11. There has been an overall decrease of 5.4% in the number of dental graduates. The number of graduates peaked in 1995 (554), and decreased to 477 by 1997.



**Table 4.1 Number of Licensed Dentists by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	138	137	146	135	144	189	187	144	143	150
P.E.I.	51	52	49	46	49	59	59	48	48	51
N.S.	403	418	420	428	438	539	540	431	428	430
N.B.	220	220	228	240	237	284	280	247	257	252
Que.	3,083	3,155	3,134	3,187	3,294	3,966	3,973	3,707	3,779	3,816
Ont.	5,605	5,679	5,781	5,988	6,149	6,911	6,957	6,323	6,361	6,552
Man.	537	524	528	541	548	616	613	543	526	544
Sask.	389	389	370	365	355	411	412	343	351	345
Alta.	1,330	1,347	1,363	1,389	1,423	1,612	1,611	1,476	1,506	1,549
B.C.	1,934	2,204	2,270	2,138	2,187	2,519	2,539	2,276	2,354	2,479
Y.T. <sup>1</sup>	16	16 <sup>2</sup>	16 <sup>2</sup>	18	17	17	15	9	8	13
N.W.T. <sup>1</sup>	36	36 <sup>2</sup>	36 <sup>2</sup>	39	56	46	52	51	58	59
Canada	13,742	14,177	14,341	14,514	14,897	17,169	17,238	15,598	15,819	16,240

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Some dentists included in the Yukon and N.W.T. counts may actually reside elsewhere in Canada.
- 2. Estimate.

**Table 4.2 Population Per Licensed Dentist by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	4,171	4,208	3,960	4,292	4,035	3,055	3,056	3,919	3,898	3,663
P.E.I.	2,549	2,506	2,663	2,839	2,687	2,256	2,278	2,826	2,844	2,679
N.S.	2,234	2,170	2,172	2,145	2,105	1,717	1,717	2,157	2,181	2,176
N.B.	3,330	3,352	3,260	3,112	3,158	2,642	2,684	3,046	2,931	2,991
Que.	2,236	2,207	2,244	2,223	2,169	1,813	1,819	1,958	1,931	1,919
Ont.	1,780	1,795	1,792	1,751	1,729	1,556	1,565	1,744	1,756	1,730
Man.	2,051	2,105	2,095	2,052	2,034	1,818	1,837	2,082	2,158	2,089
Sask.	2,626	2,598	2,709	2,743	2,827	2,452	2,456	2,963	2,908	2,966
Alta.	1,861	1,871	1,887	1,881	1,865	1,667	1,689	1,870	1,865	1,855
B.C.	1,635	1,474	1,471	1,602	1,612	1,441	1,472	1,685	1,667	1,611
Y.T.	1,678	1,719	1,760	1,630	1,776	1,764	2,020	3,499	4,017	2,468
N.W.T.	1,566	1,605	1,659	1,580	1,122	1,401	1,269	1,313	1,166	1,145
Canada	1,968	1,938	1,943	1,942	1,916	1,681	1,695	1,892	1,886	1,857

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.3 Total Number of Certified Dental Specialists by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	9	10	10	11	11	10	10	13	12	11
P.E.I.	7	7	7	6	6	5	5	5	5	5
N.S.	61	63	65	69	68	69	65	63	64	65
N.B.	18	19	18	18	20	23	22	23	23	24
Que.	303	313	320	339	339	359	355	364	379	377
Ont.	729	733	744	760	778	792	799	824	835	859
Man.	66	64	66	69	69	68	65	67	69	74
Sask.	42	40	40	41	43	39	36	33	41	41
Alta.	156	151	154 <sup>1</sup>	164 <sup>1</sup>	159	156	155	165	164	164
B.C.	189	197	195	203	201	204	203	218	233	263
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	*
Canada	1,580	1,597	1,619	1,680	1,694	1,725	1,715	1,775	1,825	1,884

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. One dentist with two specialties is counted as only one individual.

**Table 4.4 Number of Specialists Certified in Endontics by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	-	-	-	-	-	-	-	*	*	*
P.E.I.	-	-	-	-	-	-	-	-	-	-
N.S.	*	*	*	*	*	6	5	5	5	6
N.B.	-	-	-	-	-	*	*	*	*	*
Que.	22	23	22	26	25	21	21	22	23	19
Ont.	56	59	62	65	67	70	70	72	74	82
Man.	6	6	6	6	6	6	6	6	6	7
Sask.	*	*	*	*	*	*	*	*	*	*
Alta.	15	15	16	16	18	18	17	20	18	19
B.C.	18	20	19	19	18	19	19	20	23	29
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	-
Canada	124	129	131	139	140	142	140	149	155	168

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.5 Number of Specialists Certified in Oral and Maxillofacial Surgery by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	*	*	*	*	*	*	*	*	*	*
P.E.I.	*	*	*	*	*	*	*	*	*	*
N.S.	11	12	13	13	12	12	13	12	12	14
N.B.	*	*	*	*	*	*	*	*	5	5
Que.	54	56	58	63	62	66	65	67	73	73
Ont.	144	141	144	145	148	146	147	151	152	156
Man.	11	11	13	12	11	12	10	11	11	15
Sask.	6	7	7	8	9	7	7	7	8	8
Alta.	22	21	21	20	21	21	21	21	22	21
B.C.	28	28	30	31	30	27	27	28	32	37
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	-
Canada	282	282	292	298	299	297	296	303	319	332

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.6 Number of Specialists Certified in Orthodontics by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	*	*	*	*	*	*	*	*	*	*
P.E.I.	*	*	*	*	*	*	*	*	*	*
N.S.	16	16	17	19	18	18	18	15	16	15
N.B.	11	12	10	10	10	12	12	12	11	12
Que.	96	99	99	102	105	109	107	114	122	121
Ont.	227	233	233	238	243	240	241	245	251	272
Man.	22	21	21	22	25	21	20	20	20	20
Sask.	16	16	15	14	13	12	11	9	11	11
Alta.	52	49	50	51	53	51	51	58	58	56
B.C.	73	76	76	78	79	79	78	84	89	98
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	-
Canada	520	531	529	543	555	548	544	563	584	611

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.7 Number of Specialists Certified in Paediatric Dentistry by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	*	*	*	*	*	*	*	*	*	*
P.E.I.	*	*	*	*	*	*	*	*	*	*
N.S.	7	7	7	7	7	6	5	6	8	6
N.B.	*	*	*	*	*	*	*	*	*	*
Que.	41	42	44	43	41	43	44	43	43	45
Ont.	76	77	79	80	82	85	83	83	85	91
Man.	8	8	7	9	8	9	9	7	6	7
Sask.	*	*	*	*	*	*	*	*	*	*
Alta.	17	15	15	15	15	15	14	14	14	15
B.C.	17	18	18	18	19	18	18	19	19	20
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	-
Canada	172	173	176	178	179	181	178	179	180	189

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.8 Number of Specialists Certified in Periodontics by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	*	*	*	*	*	*	*	*	*	*
P.E.I.	*	*	*	-	-	-	-	-	-	-
N.S.	12	13	12	13	15	15	13	13	10	12
N.B.	*	*	*	*	*	*	*	*	*	*
Que.	33	34	35	39	39	44	43	44	45	46
Ont.	124	123	127	128	132	126	128	140	144	143
Man.	9	9	11	11	11	8	8	9	12	12
Sask.	6	6	6	6	6	6	6	5	7	7
Alta.	20	20	21	22	22	21	22	23	23	26
B.C.	24	26	25	27	26	26	26	33	34	37
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	-
Canada	233	235	242	250	258	251	251	273	280	288

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.9 Number of Specialists Certified in Prosthodontics by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	-	-	-	-	-	-	-	-	-	-
P.E.I.	-	-	-	-	-	-	-	-	-	-
N.S.	10	10	10	9	10	10	9	10	11	11
N.B.	-	-	-	-	-	-	-	-	-	-
Que.	39	42	43	46	46	50	50	48	49	47
Ont.	49	48	47	51	53	55	58	58	55	56
Man.	*	*	*	*	6	6	*	*	*	6
Sask.	*	*	*	*	5	5	*	*	*	*
Alta.	21	23	23	22	22	21	20	20	20	19
B.C.	27	27	25	28	29	29	30	28	30	34
Y.T. & N.W.T.	-	-	-	-	-	-	-	-	-	*
Canada	156	159	157	166	171	176	177	174	176	179

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.10 Number of Certified Dental Specialists in Dental Public Health, Oral Pathology, and Oral Radiology, Canada, 1988-1997**

Specialty	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Dental Public Health	55	50	53	53	53	64	66	69	68	66
Oral Pathology	28	28	29	31	31	44	42	44	41	33
Oral Radiology	10	10	11	13	13	22	21	21	22	17
Total	93	88	93	97	97	130	129	134	131	116

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 4.11 Total Number of Dental Graduates by Year and School of Graduation, Canada, 1988–1997**

Schools	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
Dalhousie University	44	37	39	27	34	37	37	40	39	38
<b>Que.</b>										
McGill University	39	35	40	37	30	37	35	34	28	31
Université de Montréal	75	73	69	83	82	91	110	108	103	92
Université Laval	30	40	40	54	40	62	44	67	53	51
<b>Ont.</b>										
University of Toronto	104	87	96	93	105	83	99	95	94	77
University of Western Ontario	39	39	40	40	40	55	56	64	59	61
<b>Man.</b>										
University of Manitoba	34	32	28	24	28	23	29	30	30	25
<b>Sask.</b>										
University of Saskatchewan	16	18	19	17	19	19	22	26	21	20
<b>Alta.</b>										
University of Alberta	85	69	81	82	94	53	50	38	34	35
<b>B.C.</b>										
University of British Columbia	38	40	39	37	38	41	44	52	53	47
<b>Total</b>	504	470	491	494	510	501	526	554	514	477

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

#### Sources

Figure 7 Calculated from data in Table 4.1.

Figure 8 Calculated from data in Table 4.2.

Table 4.1 The Canadian Dental Association.

Table 4.2 Data calculated based on Table 4.1 and population estimates from Statistics Canada shown in Appendix A.

Tables 4.3–  
4.10 The Canadian Dental Association.

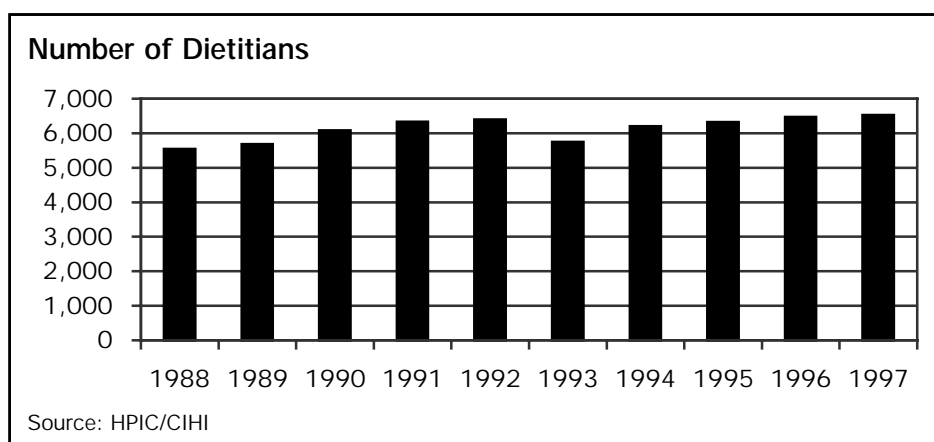
Table 4.11 The Canadian Dental Association, from the individual universities.

## Dietitians

### Description

Dietitians plan, organize, conduct and supervise programs in nutrition, diet and food service in a variety of settings. Their duties typically include: developing, administering and supervising nutrition and food preparation and service programs in hospitals, nursing homes, schools, company cafeterias or similar settings; providing nutrition counselling and consulting to health professionals, dietetic interns, community groups, government, media and individuals; planning, evaluating and conducting nutrition education programs; and developing educational materials related to nutrition. They are employed in a wide range of settings including educational institutions, hospitals, nursing homes, government and industry.

### Analysis



**Figure 9. Numbered of Registered Dietitians, Canada, 1988–1997**

Figure 9 and Table 5.1 show the number of registered dietitians in Canada. Except for Québec, registration prior to 1993 is with the Canadian Dietetic Association, not necessarily provincial associations. There have been some changes in registration across Canada that may account for fluctuations between years. For instance, P.E.I. Dietitians Board began registering dietitians in 1995, and the College of Dietitians of Ontario in 1994. In fact, most of the decline seen nationally from 1992 to 1993 is due to this different data provider for Ontario.

From 1988 to 1997, however, the number of registered dietitians increased by 17.6% in Canada.

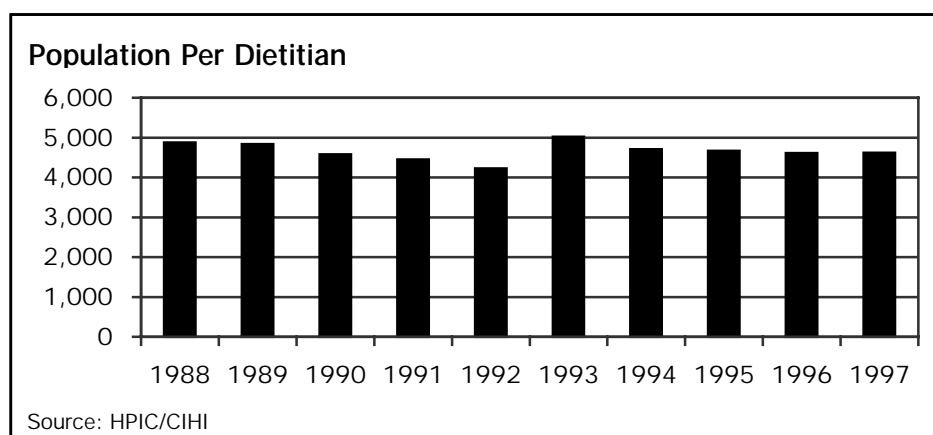


Figure 10. Population Per Registered Dietitian, Canada, 1988–1997

The populations per registered dietitian figures are illustrated in Figure 10 and Table 5.2. Figure 10 demonstrates that despite growth in the number of registered dietitians between 1992 and 1997 (an increase of 2.0%), this increase does not match the growth rate of the Canadian population (an increase of 5.6% over the same period). Therefore, although the number of dietitians increased over this period, the population per registered dietitian increased as well.

Table 5.1 Number of Registered Dietitians<sup>1</sup> by Province/Territory of Residence, Canada, 1988–1997

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	99	100	99	97	105	105	101	99	101	102
P.E.I. <sup>2</sup>	39	45	43	48	45	45 <sup>3</sup>	45 <sup>3</sup>	47	47	46
N.S.	301	311	355	351	355	305	310	322	318	316
N.B.	201	197	201	209	224	210 <sup>3</sup>	210 <sup>3</sup>	210 <sup>3</sup>	211	217
Que.	1,545	1,620	1,707	1,800 <sup>3</sup>	1,803	1,858	1,896	1,924	1,892	1,893
Ont.	1,958	1,999	2,122	2,225	2,269	1,477 <sup>4</sup>	1,858	1,929	2,047	2,145
Man.	227	226	241	244	245	258	261	263	269	275
Sask.	179	179	183	189	187	165	176	182	179	191
Alta.	470	485	524	531	540	566	571	527	570	527
B.C.	522	514	600	625	617	757	774	817	835	812
Y.T. & N.W.T.	7	6	8	9	7	..	..	..	..	..
Canada	5,548	5,682	6,083	6,328	6,397	5,746	6,202	6,320	6,469	6,524

Source: HPIC/CIHI

Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Prior to 1993 registration is with the Canadian Dietetic Association, not necessarily provincial associations, except for Québec.
- 2. P.E.I. began registering dietitians April 1, 1995.
- 3. Estimate.
- 4. The College of Dietitians of Ontario began registering dietitians on January 1, 1994.



**Table 5.2 Population Per Registered Dietitian by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	5,815	5,765	5,840	5,973	5,533	5,499	5,654	5,700	5,519	5,387
P.E.I.	3,333	2,896	3,035	2,721	2,889	2,955	2,986	2,884	2,905	2,970
N.S.	2,991	2,916	2,570	2,613	2,536	3,034	2,991	2,887	2,935	2,958
N.B.	3,644	3,743	3,698	3,573	3,270	3,573	3,579	3,583	3,570	3,474
Que.	4,457	4,297	4,120	3,935	3,819	3,870	3,811	3,773	3,855	3,868
Ont.	5,095	5,100	4,882	4,713	4,397	7,279	5,861	5,717	5,458	5,284
Man.	4,852	4,880	4,590	4,550	4,496	4,341	4,313	4,300	4,220	4,132
Sask.	5,706	5,647	5,477	5,297	5,462	6,107	5,750	5,584	5,703	5,357
Alta.	5,267	5,196	4,908	4,921	4,584	4,748	4,765	5,236	4,923	5,448
B.C.	6,051	6,321	5,564	5,479	5,120	4,794	4,829	4,694	4,701	4,918
Y.T. & N.W.T.	3,829	4,583	3,525	3,256	3,829	..	..	..	..	..
Canada	4,874	4,835	4,581	4,454	4,227	5,024	4,707	4,669	4,612	4,622

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Sources**

Figure 9 Calculated from data in Table 5.1.

Figure 10 Calculated from data in Table 5.2.

Table 5.1 1988–1992: The Canadian Dietetic Association & La Corporation professionnel des diététistes du Québec;

1993–1997: Provincial Dietitians Associations (Prince Edward Island Dietitians Registration Board, Newfoundland Dietetic Association, Nova Scotia Dietetic Association, New Brunswick Association of Dietitians, Ordre professionnel des diététistes du Québec, College of Dietitians of Ontario, Manitoba Association of Registered Dietitians, Saskatchewan Dietetic Association, Alberta Registered Dietitians Association, British Columbia Dietitians' & Nutritionists' Association).

Table 5.2 Data calculated based on Table 5.1 and population estimates from Statistics Canada shown in Appendix A.

## Health Record Professionals (Administrators/Technicians)

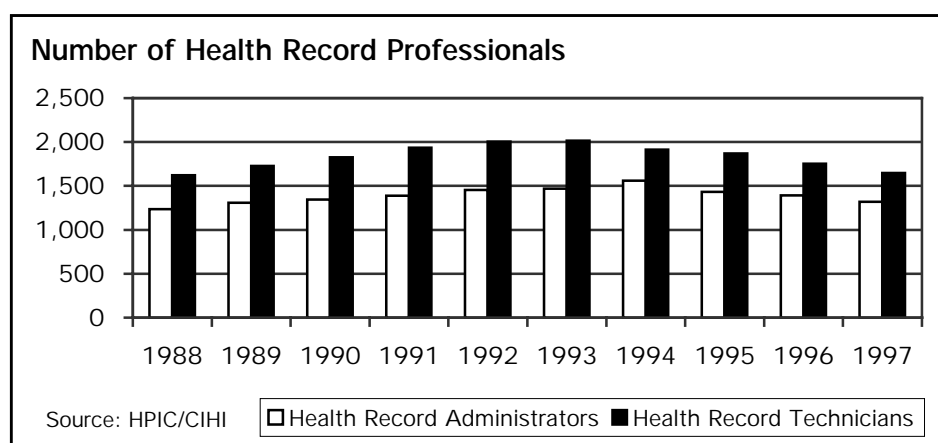
### Description

Health record professionals are trained and certified in health information management and include both health record administrators and health record technicians.

Health record administrators are responsible for planning, directing and controlling the departments responsible for records management. Their duties can include: directing and advising staff engaged in providing records management; planning, administering and controlling budgets for contracts, equipment and supplies; preparing reports; and interviewing, hiring and training staff.

Health records technicians generally work for health record administrators and their duties include: classifying, coding, cross-referencing and storing health records and related information; maintaining indexes for classification systems; operating information retrieval systems and responding to requests for health record information; preparing medical, social and administrative statistics; and applying knowledge of medical terminology, physiology and treatments.

### Analysis



**Figure 11. Number of Members of the Canadian College of Health Record Administrators/Canadian Health Record Association, Canada, 1988–1997**

As shown in Figure 11, membership of health record administrators and health record technicians in the Canadian College of Health Record Administrators/Canadian Health Record Association increased steadily from 1988 to 1992, leveling-off and decreasing in the following years.

Membership in the Canadian College of Health Record Administrators/Canadian Health Record Association is voluntary in all provinces, and is therefore not necessarily an accurate representation of the total number of professionals. For health record administrators (HRAs), membership in the College results in a 'Certificant' designation,

while for health record technicians (HRTs), membership results in an 'Associate' designation.

Across Canada health record professional membership peaked in 1993 and has declined slightly since then. However, between 1988 and 1997 there was an 3.8% overall increase in the number of health record professionals belonging to the Association. This growth consists of a 6.8% increase in the number of health record administrators, and a 1.5% increase in the number of health record technicians.

Table 6.1 shows the distribution of health record professionals by province for the years 1988 to 1997. Most provinces experienced growth in membership until 1992 or 1993 when numbers peaked, and have slightly declined since. Five provinces (Newfoundland, Nova Scotia, Québec, Manitoba, and Alberta) experienced overall decreases in the recorded number of health record professionals in 1997, compared with 1988 figures.

The population per health record professional (including both administrators and technicians) is shown in Table 6.2. For Canada as a whole, and in most provinces, the numbers of health record technicians has not kept up with the population growth, resulting in a greater population per health record professional rate in 1997 than in 1988.

The number of health record administrator graduates is shown in Table 6.3. Since 1988 there has been a decrease of 36.3% in the number of HRA graduates who become Certificants in the Canadian Health Record Association during their year of graduation. Comparable information for health record technicians is shown in Table 6.4. In the same time period, there has been a 53.1% reduction in the number of HRT graduates becoming Associates in the Canadian Health Record Association during their year of graduation.

**Table 6.1 Total Number of Certificants and Associates who were Members of the Canadian College of Health Record Administrators/Canadian Health Record Association<sup>1</sup> by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Nfld.</b>	<b>54</b>	<b>60</b>	<b>57</b>	<b>55</b>	<b>56</b>	<b>50</b>	<b>50</b>	<b>52</b>	<b>56</b>	<b>51</b>
Health Record Administrators	9	10	11	15	15	15	15	17	16	16
Health Record Technicians	45	50	46	40	41	35	35	35	40	35
<b>P.E.I.</b>	<b>14</b>	<b>14</b>	<b>16</b>	<b>19</b>	<b>18</b>	<b>19</b>	<b>19</b>	<b>21</b>	<b>20</b>	<b>15</b>
Health Record Administrators	5	*	*	6	6	7	9	9	9	7
Health Record Technicians	9	*	*	13	12	12	10	12	11	8
<b>N.S.</b>	<b>189</b>	<b>199</b>	<b>208</b>	<b>210</b>	<b>208</b>	<b>216</b>	<b>212</b>	<b>202</b>	<b>198</b>	<b>184</b>
Health Record Administrators	93	95	98	92	93	93	96	95	93	90
Health Record Technicians	96	104	110	118	115	123	116	107	105	94
<b>N.B.</b>	<b>90</b>	<b>94</b>	<b>103</b>	<b>109</b>	<b>118</b>	<b>119</b>	<b>109</b>	<b>111</b>	<b>111</b>	<b>99</b>
Health Record Administrators	35	34	36	36	40	45	38	42	40	35
Health Record Technicians	55	60	67	73	78	74	71	69	71	64
<b>Que.</b>	<b>90</b>	<b>113</b>	<b>100</b>	<b>94</b>	<b>108</b>	<b>100</b>	<b>104</b>	<b>99</b>	<b>105</b>	<b>57</b>
Health Record Administrators	74	98	85	80	96	88	93	91	98	49
Health Record Technicians	16	15	15	14	12	12	11	8	7	8
<b>Ont.</b>	<b>1,116</b>	<b>1,190</b>	<b>1,230</b>	<b>1,333</b>	<b>1,408</b>	<b>1,445</b>	<b>1,415</b>	<b>1,404</b>	<b>1,324</b>	<b>1,267</b>
Health Record Administrators	424	454	473	496	517	512	509	507	485	472
Health Record Technicians	692	736	757	837	891	933	906	897	839	795
<b>Man.</b>	<b>143</b>	<b>144</b>	<b>153</b>	<b>157</b>	<b>161</b>	<b>170</b>	<b>160</b>	<b>165</b>	<b>154</b>	<b>129</b>
Health Record Administrators	28	24	28	31	33	36	37	33	31	28
Health Record Technicians	115	120	125	126	128	134	123	132	123	101
<b>Sask.</b>	<b>242</b>	<b>249</b>	<b>263</b>	<b>268</b>	<b>265</b>	<b>269</b>	<b>270</b>	<b>267</b>	<b>262</b>	<b>262</b>
Health Record Administrators	113	113	116	119	119	124	128	131	131	133
Health Record Technicians	129	136	147	149	146	145	142	136	131	129
<b>Alta.</b>	<b>517</b>	<b>551</b>	<b>578</b>	<b>599</b>	<b>622</b>	<b>595</b>	<b>642</b>	<b>503</b>	<b>461</b>	<b>442</b>
Health Record Administrators	228	238	238	248	258	255	341	220	208	198
Health Record Technicians	289	313	340	351	364	340	301	283	253	244
<b>B.C.</b>	<b>385</b>	<b>406</b>	<b>443</b>	<b>456</b>	<b>468</b>	<b>480</b>	<b>472</b>	<b>455</b>	<b>431</b>	<b>434</b>
Health Record Administrators	221	234	248	258	266	285	285	276	270	281
Health Record Technicians	164	172	195	198	202	195	187	179	161	153
<b>Y.T. &amp; N.W.T.</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>26</b>	<b>25</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>21</b>	<b>25</b>
Health Record Administrators	5	*	*	9	10	8	9	11	10	10
Health Record Technicians	12	*	*	17	15	12	13	13	11	15
<b>Canada</b>	<b>2,857</b>	<b>3,038</b>	<b>3,170</b>	<b>3,326</b>	<b>3,457</b>	<b>3,483</b>	<b>3,475</b>	<b>3,303</b>	<b>3,143</b>	<b>2,965</b>
Health Record Administrators	1,235	1,310	1,343	1,390	1,453	1,468	1,560	1,432	1,391	1,319
Health Record Technicians	1,622	1,728	1,827	1,936	2,004	2,015	1,915	1,871	1,752	1,646

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Membership to the CCHRA/CHRA is voluntary across the provinces.

**Table 6.2 Population Per Certificant or Associate Member of the Canadian College of Health Record Administrators/Canadian Health Record Association by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Nfld.</b>	<b>10,660</b>	<b>9,609</b>	<b>10,144</b>	<b>10,535</b>	<b>10,375</b>	<b>11,548</b>	<b>11,420</b>	<b>10,852</b>	<b>9,955</b>	<b>10,773</b>
Health Record Administrators	63,962	57,654	52,564	38,627	38,732	38,494	38,068	33,195	34,841	34,340
Health Record Technicians	12,792	11,531	12,570	14,487	14,170	16,497	16,315	16,123	13,937	15,698
<b>P.E.I.</b>	<b>9,287</b>	<b>9,308</b>	<b>8,157</b>	<b>6,874</b>	<b>7,317</b>	<b>6,998</b>	<b>7,073</b>	<b>6,454</b>	<b>6,826</b>	<b>9,108</b>
Health Record Administrators	25,999	*	*	21,767	21,948	18,997	14,932	15,059	15,170	19,518
Health Record Technicians	14,444	*	*	10,046	10,973	11,081	13,439	11,294	12,412	17,078
<b>N.S.</b>	<b>4,764</b>	<b>4,558</b>	<b>4,386</b>	<b>4,368</b>	<b>4,433</b>	<b>4,285</b>	<b>4,373</b>	<b>4,602</b>	<b>4,714</b>	<b>5,080</b>
Health Record Administrators	9,682	9,547	9,310	9,971	9,914	9,952	9,657	9,788	10,036	10,387
Health Record Technicians	9,379	8,721	8,294	7,774	8,018	7,525	7,992	8,688	8,889	9,945
<b>N.B.</b>	<b>8,139</b>	<b>7,844</b>	<b>7,218</b>	<b>6,851</b>	<b>6,343</b>	<b>6,305</b>	<b>6,898</b>	<b>6,778</b>	<b>6,786</b>	<b>7,615</b>
Health Record Administrators	20,929	21,687	20,645	20,744	18,712	16,672	19,780	17,913	18,832	21,539
Health Record Technicians	13,319	12,289	11,093	10,230	9,598	10,139	10,586	10,903	10,610	11,779
<b>Que.</b>	<b>76,517</b>	<b>61,608</b>	<b>70,334</b>	<b>75,354</b>	<b>66,148</b>	<b>71,903</b>	<b>69,471</b>	<b>73,323</b>	<b>69,463</b>	<b>128,473</b>
Health Record Administrators	93,059	71,037	82,747	88,541	74,414	81,708	77,688	79,769	74,427	149,449
Health Record Technicians	430,398	464,111	468,891	505,948	595,312	599,194	656,813	907,377	1,041,952	915,372
<b>Ont.</b>	<b>8,939</b>	<b>8,567</b>	<b>8,422</b>	<b>7,867</b>	<b>7,550</b>	<b>7,440</b>	<b>7,698</b>	<b>7,857</b>	<b>8,439</b>	<b>8,948</b>
Health Record Administrators	23,529	22,455	21,901	21,142	20,562	20,998	21,394	21,753	23,037	24,013
Health Record Technicians	14,417	13,851	13,685	12,528	11,931	11,523	12,019	12,297	13,317	14,257
<b>Man.</b>	<b>7,703</b>	<b>7,659</b>	<b>7,231</b>	<b>7,072</b>	<b>6,925</b>	<b>6,589</b>	<b>7,036</b>	<b>6,853</b>	<b>7,372</b>	<b>8,808</b>
Health Record Administrators	39,340	45,952	39,510	35,817	33,784	31,114	30,427	34,266	36,622	40,578
Health Record Technicians	9,578	9,190	8,850	8,812	8,710	8,359	9,153	8,567	9,230	11,249
<b>Sask.</b>	<b>4,221</b>	<b>4,059</b>	<b>3,811</b>	<b>3,738</b>	<b>3,787</b>	<b>3,746</b>	<b>3,748</b>	<b>3,806</b>	<b>3,896</b>	<b>3,907</b>
Health Record Administrators	9,039	8,947	8,641	8,413	8,433	8,127	7,908	7,758	7,792	7,693
Health Record Technicians	7,918	7,432	6,819	6,719	6,873	6,950	7,126	7,473	7,792	7,932
<b>Alta.</b>	<b>4,788</b>	<b>4,574</b>	<b>4,449</b>	<b>4,362</b>	<b>4,267</b>	<b>4,517</b>	<b>4,238</b>	<b>5,486</b>	<b>6,088</b>	<b>6,498</b>
Health Record Administrators	10,857	10,588	10,808	10,537	10,286	10,539	7,979	12,543	13,492	14,500
Health Record Technicians	8,568	8,051	7,564	7,445	7,291	7,904	9,040	9,751	11,092	11,766
<b>B.C.</b>	<b>8,205</b>	<b>8,002</b>	<b>7,536</b>	<b>7,509</b>	<b>7,533</b>	<b>7,560</b>	<b>7,919</b>	<b>8,428</b>	<b>9,107</b>	<b>9,202</b>
Health Record Administrators	14,293	13,884	13,462	13,272	13,254	12,733	13,114	13,894	14,538	14,212
Health Record Technicians	19,261	18,889	17,120	17,293	17,453	18,610	19,987	21,423	24,380	26,101
<b>Y.T. &amp; N.W.T.</b>	<b>4,897</b>	<b>4,738</b>	<b>4,625</b>	<b>3,499</b>	<b>3,722</b>	<b>4,722</b>	<b>4,376</b>	<b>4,102</b>	<b>4,744</b>	<b>3,985</b>
Health Record Administrators	16,644	*	*	10,109	9,304	11,804	10,698	8,950	9,962	9,962
Health Record Technicians	6,935	*	*	5,352	6,203	7,869	7,406	7,573	9,056	6,641
<b>Canada</b>	<b>9,467</b>	<b>9,044</b>	<b>8,790</b>	<b>8,474</b>	<b>8,258</b>	<b>8,288</b>	<b>8,400</b>	<b>8,934</b>	<b>9,493</b>	<b>10,170</b>
Health Record Administrators	21,896	20,973	20,747	20,278	19,648	19,663	18,712	20,607	21,448	22,862
Health Record Technicians	16,672	15,900	15,251	14,557	14,248	14,327	15,243	15,772	17,029	18,320

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 6.3 Number of Health Record Administrator Graduates who became Certificants<sup>1</sup>, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
School of Health Record Science <sup>2</sup>	6	5	5	*	5	*	5	8	5	9
<b>Que.</b>										
Collège Ahuntsic	20	45	33	31	19	21	21	16	19	*
Collège LaFleche	..	..	..	..	34	22	28	27	23	5
Collège de l'Assomption						-	-	-	*	*
<b>Ont.</b>										
Algonquin CAAT	21	20	17	15	11	8	13	22	13	13
George Brown CAAT <sup>3</sup>	..	16	17	13	8	8	15	10	10	12
<b>Sask.</b>										
SIAST	9	6	8	*	9	8	8	11	8	8
<b>Alta.</b>										
N.A.I.T.	15	13	16	15	10	16	17	13	*	-
<b>B.C.</b>										
Douglas College <sup>4</sup>	16	16	16	17	14	14	6	8	12	13
<b>Progression Associate to Certificant<sup>5</sup></b>	15	9	7	17	29	*	..	..	..	..
<b>Canada</b>	<b>102</b>	<b>130</b>	<b>119</b>	<b>118</b>	<b>139</b>	<b>104</b>	<b>113</b>	<b>115</b>	<b>97</b>	<b>65</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes only those graduates who applied to the CCHRA/CHRA during the year of graduation and who were accepted as Certificants. It is not necessarily equivalent to the annual number of graduates of each institute.
- 2. Name later changed to Queen Elizabeth II Health Sciences Centre.
- 3. Prior to 1989 the course was given at St. Michael's Hospital.
- 4. Prior to 1991 the course was given at B.C.I.T., Burnaby.
- 5. Program of self-study, followed by a Certificant-level examination.

**Table 6.4 Number of Health Record Technician Graduates who became Associates<sup>1</sup>, by Year and School of Graduation, Canada, 1988–1997**

Schools	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
School of Health Record Science <sup>2</sup>	*	5	*	*	*	*	*	*	*	-
<b>Ont.</b>										
Algonquin CAAT, Ottawa	..	..	..	8	*	5	*	*	*	*
Niagara CAAT, Welland	19	13	19	19	17	15	9	14	7	-
Fanshawe CAAT, London	18	15	14	17	8	9	8	6	5	8
George Brown CAAT <sup>3</sup> , Toronto	..	7	12	13	9	12	14	10	10	*
Confederation College	..	..	..	..	9	8	7	7	6	12
<b>Man.</b>										
Red River Community College	13	13	15	13	17	17	12	10	10	-
<b>Sask.</b>										
SIAST	*	5	*	*	5	*	*	*	*	-
<b>Alta.</b>										
S.A.I.T.	12	19	22	20	19	18	19	14	18	12
N.A.I.T.	..	..	..	..	..	-	-	-	*	-
<b>B.C.</b>										
B.C.I.T.	10	15	9	8	8	..				
Douglas College	..	..	..	..	..	8	9	*	*	-
<b>Canadian Hospital Association</b>	92	118	127	137	152	107	12	53	39	46
<b>Canada</b>	175	210	227	238	250	204	101	126	106	82

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes only those graduates who applied to the CCHRA/CHRA during the year of graduation and who were accepted as Associates. It is not necessarily equivalent to the annual number of graduates of each institute.
- 2. Name later changed to Queen Elizabeth II Health Sciences Centre.
- 3. Prior to 1989 the course was given at St. Michael's Hospital.
- 4. In 1993 the program transferred from B.C.I.T. to Douglas College.

#### Sources

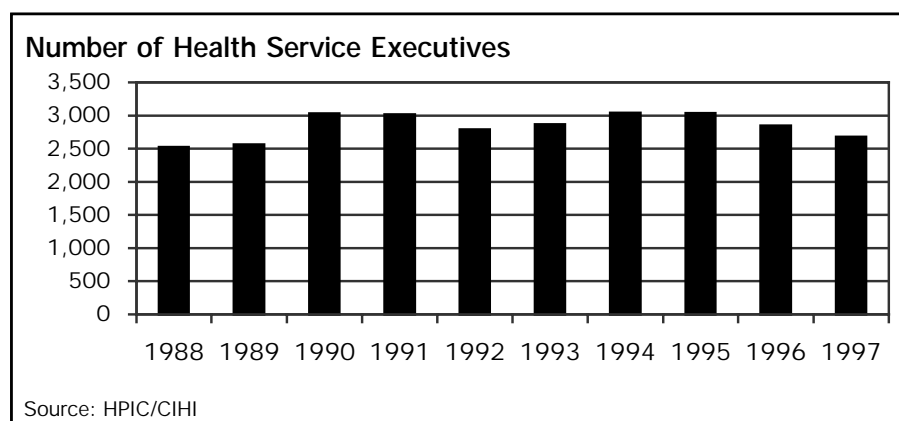
- Figure 11 Calculated from data in Table 6.1.
- Table 6.1 Canadian College of Health Record Administrators/Canadian Health Record Association.
- Table 6.2 Data calculated based on Table 6.1 and population estimates from Statistics Canada shown in Appendix A.
- Table 6.3 Canadian College of Health Record Administrators/Canadian Health Record Association.
- Table 6.4 Canadian College of Health Record Administrators/Canadian Health Record Association.

## Health Service Executives

### *Description*

Health service executives administer, manage and operate health care delivery organizations. Their duties include: developing objectives for the organization; developing or approving policies and programs; selecting or approving the selection of middle management and other executive staff; coordinating the work of departments, divisions or regions; and representing the organization in negotiations or other official functions.

### **Analysis**



**Figure 12. Number of Members of the Canadian College of Health Service Executives, Canada, 1988–1997**

Membership to the College is voluntary and therefore does not necessarily include all health executives in Canada. As shown in Figure 12, the number of health executive members in 1997 increased 6.0% from 1988. However, this increase was not consistent over the years. Membership peaked in 1994, and by 1997 had decreased to a level equivalent to 1990.

Table 7.1 highlights the members of the Canadian College of Health Services Executives by province for the years 1988 to 1997. In 1997 only three provinces showed an increase from 1988: Ontario (46.7%), British Columbia (18.4%), and Nova Scotia (15.9%).

The population per health executive with membership to the Canadian College of Health Service Executives is presented in Table 7.2.



**Table 7.1 Number of Members<sup>1</sup> of the Canadian College of Health Service Executives, by Province/Territory of Membership, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993 <sup>2</sup>	1994	1995	1996	1997
Nfld.	107	105	118	100	97	100	100	96	81	70
P.E.I.	18	19	23	22	22	23	17	17	15	12
N.S.	111	107	127	138	121	125	136	135	119	109
N.B.	110	117	117	112	108	111	104	96	87	72
Que.	145	139	137	138	135	139	183	160	136	124
Ont.	1,066	1,077	1,345	1,390	1,270	1,307	1,438	1,525	1,485	1,385
Man.	162	156	171	127	125	129	131	128	115	115
Sask.	143	154	175	181	145	149	135	127	127	117
Alta.	346	357	433	433	408	420	377	346	297	299
B.C.	317	331	383	377	356	366	388	377	356	349
Y.T. & N.W.T.	..	..	..	..	..	..	32	26	25	23
Canada	2,525	2,562	3,029	3,018	2,787	2,868	3,041	3,033	2,843	2,675

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. Excludes Student Affiliates, Foreign Affiliates, Inactive Members, Honorary Fellows, Honorary Members, and Members of Indefinite Status.

2. CIHI estimate.

**Table 7.2 Population Per Member<sup>1</sup> of the Canadian College of Health Service Executives, by Province/Territory of Membership, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	5,380	5,491	4,900	5,794	5,989	5,784	5,491	5,643	6,126	7,044
P.E.I.	7,222	6,859	5,673	5,937	5,985	5,872	7,073	7,530	8,533	11,385
N.S.	8,112	8,476	7,184	6,647	7,620	7,432	6,099	6,281	7,071	7,539
N.B.	6,659	6,302	6,352	6,668	6,930	6,750	7,025	7,677	8,278	9,790
Que.	47,492	50,084	51,338	51,328	52,917	51,751	36,675	42,450	50,650	54,244
Ont.	9,359	9,466	7,702	7,544	8,371	8,225	6,776	6,644	6,842	7,174
Man.	6,799	7,069	6,469	8,742	8,919	8,707	8,339	8,567	9,156	9,017
Sask.	7,143	6,564	5,728	5,531	6,921	6,752	6,571	7,107	6,851	7,205
Alta.	7,155	7,059	5,939	6,035	6,505	6,400	6,494	7,130	8,303	8,444
B.C.	9,965	9,815	8,717	9,083	9,903	9,904	8,672	9,023	9,740	10,187
Y.T. & N.W.T.	..	..	..	..	..	..	3,009	3,787	3,985	4,331
Canada	10,710	10,724	9,199	9,338	10,243	10,064	8,698	8,915	9,480	9,952

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. Excludes Student Affiliates, Foreign Affiliates, Inactive Members, Honorary Fellows, Honorary Members, and Members of Indefinite Status.

## **Sources**

- Figure 12      Calculated from data in Table 7.1.
- Table 7.1      Canadian College of Health Service Executives.
- Table 7.2      Data calculated based on Table 7.1 and population estimates from Statistics Canada shown in Appendix A.

## Licensed Practical Nurses

### Description

Licensed practical nurses (or *nursing assistants*) provide nursing care for patients and assist registered nurses, physicians and other health care professionals. Their duties include: taking patients' blood pressure, temperature and pulse; distributing medication to patients; changing patients' dressings; bathing and dressing patients; assisting registered nurses with procedures such as respiratory therapy, intravenous (I.V.) therapy, applying sterile compresses and removing sutures; and monitoring patients' progress and reporting changes to registered nurses, doctors and other health team members. Licensed practical nurses work in a variety of settings including hospitals, clinics, doctors' offices, industry, private homes, and community health centres.

### Analysis

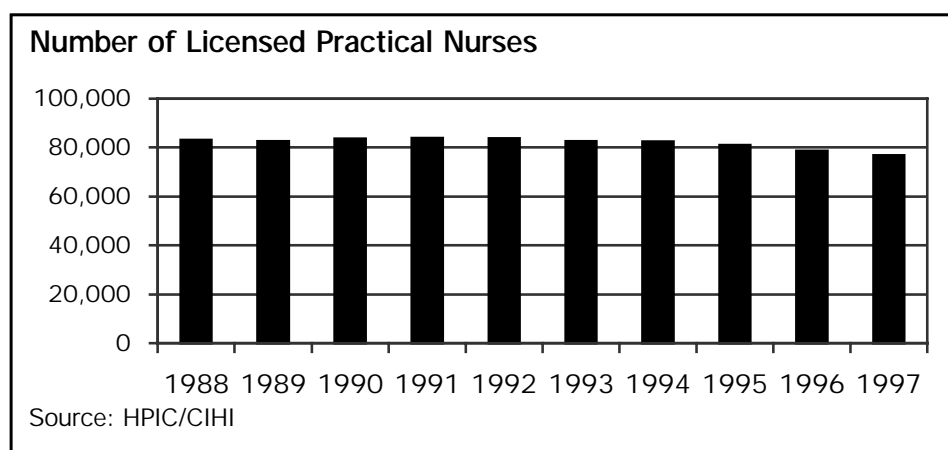
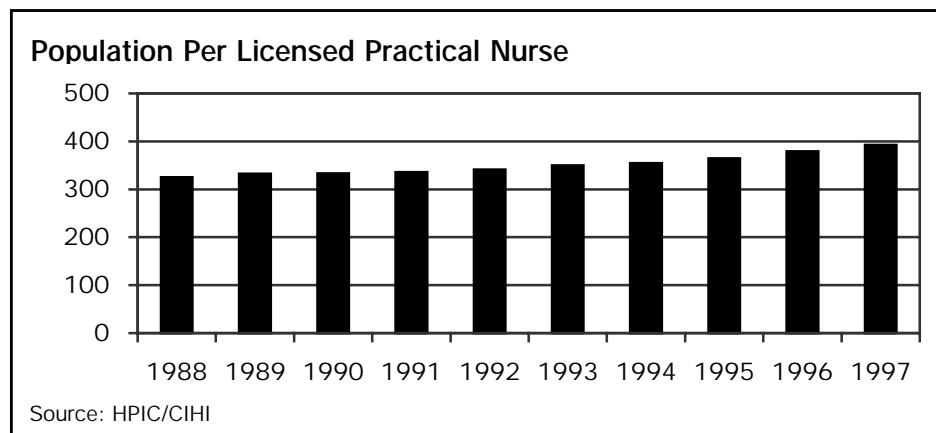


Figure 13. Number of Licensed Practical Nurses, Canada, 1988–1997

Figure 13 illustrates the number of licensed practical nurses (LPNs) in Canada from 1988 to 1997. During this period the number of LPNs increased until 1991, and steadily declined afterward. Table 8.1 shows that in 1997 there were more than 6,000 fewer LPNs in Canada than in 1988, a reduction of 7.6%.

Despite an overall decrease in the number of LPNs in Canada, four provinces/territories experienced a slight increase during this ten-year period. New Brunswick experienced 15.5% growth, while Newfoundland (13.7%), Prince Edward Island (6.0%), and the Yukon (7.2%), also witnessed an increase in LPN counts.



**Figure 14. Population Per Licensed Practical Nurse, Canada, 1988–1997**

The population per LPN is shown in Figure 14 and Table 8.2. Due to the overall decline in the number of LPNs nationally, the population per licensed practical nurse has grown significantly, increasing 20.6% over this period.

The number of graduates of provincially approved programs for LPNs, by province and year, is shown in Table 8.3. There appears to be considerable variability in the number of graduates produced on a year-to-year basis throughout Canada.

**Table 8.1 Number of Licensed Practical Nurses by Province/Territory of Licensure, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	2,496	2,552	2,598	2,810	2,817	2,751	2,853	2,833	2,838	2,797
P.E.I.	582	599	614	616	630	631	634	597	586	617
N.S.	3,307	3,269	3,316	3,308	3,320	3,283	3,248	3,244	3,160	3,220
N.B. <sup>1</sup>	2,180	2,206	2,251	2,223	2,334	1,968	2,003	2,243	2,427	2,517
Que. <sup>2</sup>	19,860	19,735	19,661	19,693	19,667	19,688	19,519	19,283	18,572	18,082
Ont.	34,815	35,136	34,815	35,612	35,516	35,877	36,593	36,066	35,392	34,623
Man. <sup>1</sup>	4,114	4,051	3,884	3,806	3,657	3,086	2,864	2,737	2,580	2,488
Sask. <sup>1</sup>	2,412	2,540	2,538	2,713	2,682	2,616	2,535	2,405	2,277	2,187
Alta.	7,225	6,956	7,636	6,530 <sup>3</sup>	6,545	6,378	6,196	5,562	4,963	4,723
B.C.	5,949	5,327 <sup>4</sup>	6,063	6,379	6,390	6,254	5,841	5,871	5,667	5,385
Y.T. <sup>5</sup>	69	78	65	54	56	66	78	80	76	74
N.W.T.	124	123	124	111	135	..	89	96	101	97
Canada	83,133	82,572	83,565	83,855	83,749	82,598	82,453	81,017	78,639	76,810

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. The figures combine the number of licensed, active practical nurses with the number of licensed, inactive practical nurses.
- 2. The profession of nursing assistant is a restricted profession but has no exclusive field of activity. It may be then that there are in Québec some persons occupied with similar functions, without always using the title of nursing assistant and without being members of the corporation.
- 3. Beginning in 1991, practical nurses in Alberta had to log a minimum of 1,000 hours of work over the prior 4 years to qualify as "Licensed", therefore the numbers decrease in subsequent years.
- 4. Estimate.
- 5. A Yukon license is not required if a Canadian nursing assistant is eligible for licensure, or is licensed elsewhere in Canada.

**Table 8.2 Population Per Licensed Practical Nurse by Province/Territory of Licensure, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	231	226	223	206	206	210	208	198	197	194
P.E.I.	223	218	213	212	209	211	212	227	233	221
N.S.	272	277	275	277	278	282	285	287	295	290
N.B.	336	334	330	336	321	381	375	335	310	300
Que.	347	353	358	360	363	365	370	376	393	405
Ont.	287	290	298	294	299	300	298	306	316	327
Man.	268	272	285	292	305	363	393	413	440	457
Sask.	423	398	395	369	374	385	399	423	448	468
Alta.	343	362	337	400	405	421	439	496	565	608
B.C.	531	610	551	537	552	580	640	653	693	742
Y.T.	389	353	433	543	539	454	388	394	423	434
N.W.T.	455	470	482	555	466	..	741	698	668	696
Canada	325	333	333	336	341	349	354	364	379	392

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 8.3 Number of Graduates of Provincially Approved Licensed Practical Nursing Programs, by Province/Territory of Graduation, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	107	119	126 <sup>1</sup>	149	70	76	99	114	155	102
P.E.I.	23	30	34	26	32	29	28	- <sup>2</sup>	- <sup>2</sup>	30
N.S.	198	197	210	208	200	209	190	212	178	136
N.B.	49	52	53	57	66	69	58	179	251	183
Que.	311	290 <sup>1</sup>	386	368	425	..	..	..	..	..
Ont.	1,304	1,286	1,280 <sup>1</sup>	1,704 <sup>3</sup>	1,868	1,674	1,179	1,218	1,171	1,139
Man.	173	170 <sup>1</sup>	137	151	122	84	48	27	29	9 <sup>4</sup>
Sask.	103	55 <sup>4</sup>	52	57	49	42	31	27	28	31
Alta.	140	200	292	343	350	262	197	71	47	82
B.C.	169	150	143	148	156	106	98	105	115	119
Y.T. & N.W.T.	12	12	16	7	6	..	..	..	..	..
Canada	2,589	2,561	2,729	3,218	3,344	2,551	1,928	1,953	1,974	1,831

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Estimate.
- 2. No training program was available in P.E.I. for the years 94/95 and 95/96.
- 3. The increase reflects higher enrolment in pre-existing programs, as well as new institutions offering programs.
- 4. The decrease is a result of partial cancellation of programs.

## **Sources**

Figure 13      Calculated from data in Table 8.1.

Figure 14      Calculated from data in Table 8.2.

Table 8.1      1988–1992: Council for Nursing Assistants, Nursing Assistants Registration Board, the Department of Health, Newfoundland; Department of Health, Prince Edward Island; Board of Registration of Nursing Assistants, Nova Scotia; Association of New Brunswick Registered Nursing Assistants;  
  
1993–1997: Data supplied by provincial organizations (Council for Licensed Practical Nurses - Newfoundland & Labrador, PEI Nursing Assistants Registration Board, Practical Nurses Licensing Board-Nova Scotia, Association of New Brunswick Registered Nursing Assistants, Ordre des infirmières et infirmiers auxiliaires du Québec, College of Nurses of Ontario, Manitoba Licensed Practical Nurses Association, Saskatchewan Association of Licensed Practical Nurses, College of Licensed Practical Nurses of Alberta, College of Licensed Practical Nurses of British Columbia), Government of Yukon Health & Social Services, and Government of Northwest Territories Health & Social Services.

Table 8.2      Data calculated based on Table 8.1 and population estimates from Statistics Canada shown in Appendix A.

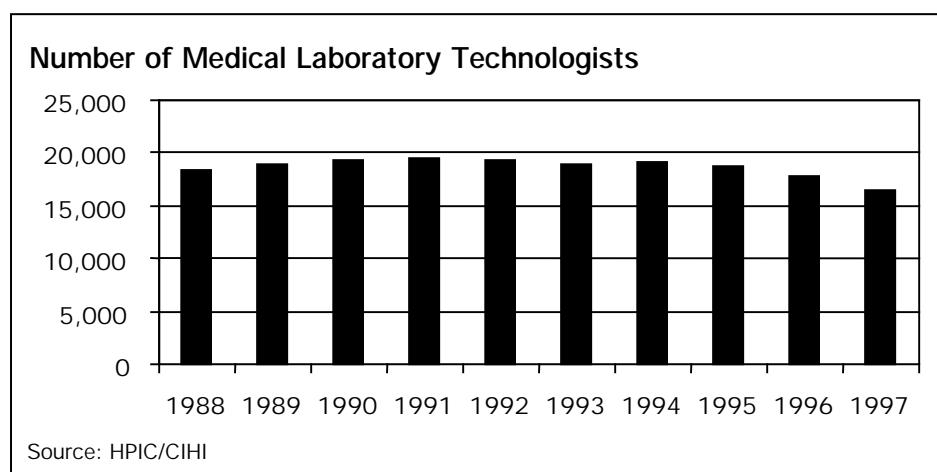
Table 8.3      1988–1992: Council for Nursing Assistants, Nursing Assistants Registration Board, the Department of Health, Newfoundland; Department of Health, Prince Edward Island; Board of Registration of Nursing Assistants, Nova Scotia; Association of New Brunswick Registered Nursing Assistants;  
  
1993–1997: Data supplied by provincial organizations (Council for Licensed Practical Nurses - Newfoundland & Labrador, PEI Nursing Assistants Registration Board, Practical Nurses Licensing Board-Nova Scotia, Association of New Brunswick Registered Nursing Assistants, College of Nurses of Ontario, Manitoba Licensed Practical Nurses Association, Saskatchewan Association of Licensed Practical Nurses, College of Licensed Practical Nurses of Alberta, College of Licensed Practical Nurses of British Columbia).

## Medical Laboratory Technologists

### *Description*

Medical Laboratory Technologists perform laboratory tests that assist physicians in the diagnosis and treatment of patients. The duties of a Medical Laboratory Technologist include: performing and interpreting diagnostic tests on blood, tissue, and body fluids; cultivating, isolating and identifying bacteria, fungi, viruses, and parasites which invade the body; counting blood cells, recognizing abnormalities and reporting changes which have taken place in blood cells; determining blood type and cross-matching for transfusions; and arranging tissue in sections, staining and preparing specimens for examination under the microscope. Most medical laboratory technologists work in hospitals or government laboratories, private medical clinics, public health clinics or blood transfusion service labs.

### **Analysis**



**Figure 15. Number of Active Certified Members of Medical Laboratory Technology Associations, Canada, 1988–1997**

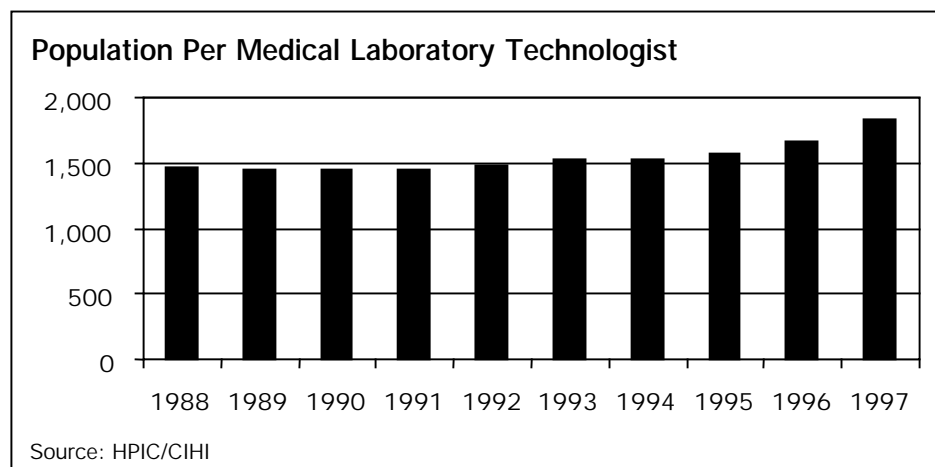
Figure 15 and Table 9.1 illustrate the number of active certified medical laboratory technologists (MLTs) in Canada for 1988 to 1997.

Membership statistics for all provinces/territories except Ontario and Alberta refer to the Canadian Society for Medical Laboratory Science (CSMLS), a professional organization for which membership is voluntary. Consequently, membership statistics may under-represent the actual number of practicing MLTs. For Ontario, membership data from 1994 to 1997 refers to the College of Medical Laboratory Technologists of Ontario, a regulatory authority in which membership is mandatory for practice. For Alberta, active certified membership data from 1994 to 1997 refers to the Alberta Society of Medical Laboratory Technologists, a voluntary professional organization with which membership will be mandatory to practice in Alberta by 2001.



As shown in Table 9.1, the number of members of medical laboratory technology associations decreased 10.8% from 1988 to 1997, with the sharpest decline occurring after 1994.

Provincially, Québec (-40.9%), Alberta (-39.5%), and Saskatchewan (-28.6%) experienced the most significant decline, while several provinces/territories experienced a moderate increase in the number of MLT memberships.



**Figure 16. Population Per Active Certified Member of Medical Laboratory Technology Associations, Canada, 1988–1997**

The population per active certified member of MLT associations is shown in Figure 16 and Table 9.2. As expected, the population per MLT rose steadily after 1994. While in 1988 there was one MLT for every 1,466 Canadians, by 1997 the ratio was 1:1,834, an increase of 25.1%. With its large population and significant decline in memberships, Québec's population per MLT figure for 1997 is the largest in Canada.

The total number of medical laboratory technologists is presented in Table 9.3, although the voluntary nature of the CSMLS under-represents the actual number of practicing MLTs.

Table 9.4 presents the number of graduates eligible to write the Canadian Society for Medical Laboratory Science MLT Certification exam. Though membership in the CSMLS is voluntary, graduates must pass the Certification exam to practice in Canada. Considering the declining number of MLT memberships during this time period, the observed decrease in the number of graduates is expected; from 1988 to 1997, the number declined by 45.8%.

**Table 9.1 Number of Active Certified Members of Medical Laboratory Technology Associations, by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	263	274	276	273	277	267	299	304	325	318
P.E.I.	98	104	111	115	114	116	108	104	107	102
N.S.	862	909	914	925	917	897	869	847	799	773
N.B.	527	541	559	588	604	650	647	649	648	606
Que.	2,057	2,043	1,944	1,931	1,847	1,759	1,687	1,618	1,508	1,216
Ont. <sup>1</sup>	7,516	7,628	7,833	7,932	7,727	7,510	8,242	8,247	8,139	7,684
Man.	1,045	1,057	1,075	1,085	1,084	1,083	1,069	1,039	1,010	974
Sask.	1,013	1,067	1,115	1,142	1,145	1,103	1,026	998	988	724
Alta. <sup>2</sup>	2,416	2,499	2,584	2,593	2,620	2,615	2,357	2,053	1,690	1,462
B.C.	2,606	2,685	2,778	2,884	2,941	2,915	2,848	2,771	2,630	2,538
Y.T. & N.W.T.	40	39	42	39	39	47	45	48	46	47
Canada	18,443	18,846	19,231	19,507	19,315	18,962	19,197	18,678	17,890	16,444

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Ontario data from 1994 to 1997 is provided by the College of Medical Laboratory Technologists of Ontario, a regulatory authority in which licensure is mandatory for practice in Ontario.
- 2. Although the Alberta Society of Medical Laboratory Technologists is a professional organization in which licensure is voluntary, imminent legislation for mandatory licensure has led to the ASMLT providing more representative statistics regarding the number of MLTs in Alberta. Consequently, Alberta data from 1994 to 1997 is provided by the ASMLT.

**Table 9.2 Population Per Active Certified Member of Medical Laboratory Technology Associations, by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	2,189	2,104	2,095	2,122	2,097	2,163	1,910	1,856	1,715	1,728
P.E.I.	1,326	1,253	1,176	1,136	1,155	1,146	1,244	1,303	1,276	1,339
N.S.	1,045	998	998	992	1,005	1,032	1,067	1,098	1,168	1,209
N.B.	1,390	1,363	1,330	1,270	1,239	1,154	1,162	1,159	1,162	1,244
Que.	3,348	3,408	3,618	3,668	3,868	4,088	4,283	4,486	4,837	6,022
Ont.	1,327	1,336	1,323	1,322	1,376	1,432	1,321	1,337	1,373	1,475
Man.	1,054	1,043	1,029	1,023	1,028	1,034	1,053	1,088	1,124	1,167
Sask.	1,008	947	899	877	876	914	986	1,018	1,033	1,413
Alta.	1,025	1,008	995	1,008	1,013	1,028	1,154	1,344	1,661	1,964
B.C.	1,212	1,210	1,202	1,187	1,199	1,245	1,312	1,384	1,492	1,573
Y.T. & N.W.T.	2,080	2,187	2,092	2,333	2,386	2,009	2,140	2,051	2,166	2,120
Canada	1,466	1,458	1,449	1,445	1,478	1,522	1,521	1,580	1,668	1,834

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 9.3 Total Number of Members of Medical Laboratory Technology Associations<sup>1</sup> by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	298	304	314	304	310	340	393	397	415	395
P.E.I.	111	114	122	126	126	126	121	118	119	117
N.S.	1,014	1,041	1,050	1,050	1,058	1,100	1,102	1,050	980	956
N.B.	590	604	618	651	680	756	764	765	762	728
Que.	2,329	2,351	2,210	2,179	2,095	2,275	2,194	2,296	2,074	1,891
Ont. <sup>2</sup>	8,477	8,640	8,840	8,988	8,838	9,212	8,449	8,645	8,628	8,291
Man.	1,173	1,189	1,197	1,199	1,209	1,258	1,241	1,259	1,183	1,135
Sask.	1,228	1,273	1,295	1,314	1,310	1,356	1,353	1,270	1,206	892
Alta.	2,812	2,876	2,964	2,967	3,014	3,197	2,839	2,430	2,012	1,886
B.C.	2,909	3,012	3,106	3,204	3,268	3,423	3,416	3,299	3,131	3,015
Y.T. & N.W.T.	51	52	50	51	49	59	57	60	57	57
<b>Canada</b>	<b>20,992</b>	<b>21,456</b>	<b>21,766</b>	<b>22,033</b>	<b>21,957</b>	<b>23,102</b>	<b>21,929</b>	<b>21,589</b>	<b>20,567</b>	<b>19,363</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Due to the voluntary nature of the CSMLS, the totals presented here are not representative of the total Medical Laboratory Technologist workforce in any given province.
- 2. Ontario data from 1994 to 1997 provided by the College of Medical Laboratory Technologists of Ontario.

**Table 9.4 Number of Graduates of Medical Laboratory Technology Programs by Province/Territory of Graduation, Canada, 1988–1997**

Province	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	18	20	19	33	35	*	*	16	21	18
N.S.	36	51	37	38	42	29	30	25	27	-
N.B.	12	9	8	16	18	20	17	9	14	14
Que.	231	215	227	248	220	182	217	204	204	210
Ont.	291	295	287	273	249	224	185	154	155	151
Man.	35	33	28	28	26	36	28	22	23	20
Sask.	77	60	63	40 <sup>2</sup>	45	44	49	31	20	*
Alta.	132	119	123	123	121	72	69	43	34	27
B.C.	68	68	62	62	70	58	72	51	16	34
No formal program <sup>1</sup>	..	..	..	..	..	*	*	5	11	*
<b>Total</b>	<b>900</b>	<b>870</b>	<b>854</b>	<b>861</b>	<b>826</b>	<b>682</b>	<b>691</b>	<b>560</b>	<b>525</b>	<b>488</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes foreign-trained students deemed eligible to write the Canadian Society for Medical Laboratory Science Certification exam.
- 2. Diploma program at the University of Regina discontinued after 1990.

## **Sources**

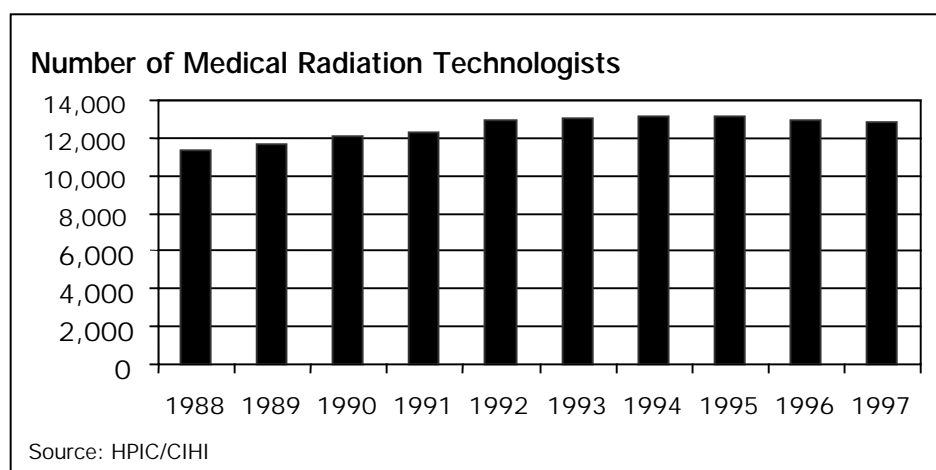
Figure 15	Calculated from data in Table 9.1.
Figure 16	Calculated from data in Table 9.2.
Table 9.1	1988–1993: The Canadian Society of Laboratory Technologists; 1994–1997: The Canadian Society of Laboratory Technologists/Canadian Society for Medical Laboratory Science, College of Medical Laboratory Technologists of Ontario, Alberta Society of Medical Laboratory Technologists.
Table 9.2	Data calculated based on Table 9.1 and population estimates from Statistics Canada shown in Appendix A.
Table 9.3	1988–1993: The Canadian Society of Laboratory Technologists; 1994–1997: The Canadian Society of Laboratory Technologists/Canadian Society for Medical Laboratory Science, College of Medical Laboratory Technologists of Ontario.
Table 9.4	Individual universities, colleges and institutes.

## Medical Radiation Technologists

### Description

Medical radiation technologists (MRTs) operate radiographic and radiation therapy equipment to administer radiation treatment and produce images of body structures for the diagnosis and treatment of injury and disease. Their duties include: operating X-ray, radiographic and fluoroscopic equipment, specialized C.T. scanners and mammography units to produce radiographs or images of body structures for the diagnosis by radiologists of disease or injury; recording and processing patient data; and performing scheduled maintenance and minor emergency repairs on radiographic equipment. Medical radiation technologists are usually employed in hospitals, cancer treatment centres, clinics and radiological laboratories. They may specialize in radiography, nuclear medicine or radiation therapy.

### Analysis



**Figure 17. Number of Members of Associations for Medical Radiation Technologists, Canada, 1988–1997**

As shown in Figure 17, membership in the Canadian Association of Medical Radiation Technologists increased steadily from 1988 to 1992, levelling-off in the following years. Membership in the Canadian Association of Medical Radiation Technologists is not mandatory for practice in all provinces; therefore the numbers presented in Table 10.1 are not fully representative of the number of MRTs in Canada. Excluding Québec data, the number of MRTs in Canada steadily increased from 1988 to a peak in 1994, when a slow downward trend began to emerge. Nonetheless, there was a 13.7% increase in MRTs in Canada over this ten-year period.

Table 10.1 shows the breakdown of MRTs by province/territory for the years 1988 to 1997. Four provinces had significant increases in the number of MRTs registered with the Canadian Association of Medical Radiation Technologists during that time period. In three of these provinces, Newfoundland (72.1%), British Columbia (52.6%), and New Brunswick

(42.8%), the increase has been continuous, while the fourth province, Prince Edward Island (25.0%), followed the national trend of membership peaking in the early 1990s.

Table 10.2 shows the population for each MRT, by province, for the years 1988 to 1997.

**Table 10.1 Number of Members of Associations for Medical Radiation Technologists<sup>1</sup>  
by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	154	185	170	198	250	263	265	271	262	265
P.E.I.	52	58	61	66	64	70	65	66	66	65
N.S.	493	518	514	532	537	540	532	530	506	524
N.B.	313	343	359	368	378	410	429	446	454	447
Que.	3,231	3,291	3,356 <sup>2</sup>	3,420 <sup>3</sup>	3,470	3,606	3,678	3,730	3,685	3,577
Ont.	3,775	3,806	3,957	3,954	4,312	4,201	4,179	4,060	3,984	3,896
Man.	596	597	598	607	619	620	640	658	652	617
Sask.	390	389	422	415	404	405	427	419	419	414
Alta.	1,240	1,258	1,306	1,369	1,374	1,416	1,363	1,353	1,315	1,324
B.C.	1,093	1,185	1,311	1,403	1,482	1,502	1,557	1,582	1,613	1,668
Y.T. & N.W.T.	..	..	..	..	..	..	..	..	..	..
Canada	11,337	11,630	12,054	12,332	12,890	13,033	13,135	13,115	12,956	12,797

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. Membership in Québec refers to l'Ordre des techniciens en radiologie du Québec; membership for the rest of Canada refers to the Canadian Association of Medical Radiation Technologists.

2. From March 31, 1992. Non-active members were excluded.

3. Estimate.

**Table 10.2 Population Per Member of Associations for Medical Radiation Technologists, by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	3,738	3,116	3,401	2,926	2,324	2,195	2,155	2,082	2,128	2,073
P.E.I.	2,500	2,247	2,139	1,979	2,057	1,900	2,067	2,054	2,069	2,102
N.S.	1,826	1,751	1,775	1,724	1,717	1,714	1,743	1,754	1,845	1,784
N.B.	2,340	2,150	2,070	2,029	1,980	1,830	1,752	1,687	1,659	1,686
Que.	2,131	2,115	2,096	2,071	2,059	1,994	1,964	1,946	1,979	2,047
Ont.	2,643	2,679	2,618	2,652	2,465	2,559	2,606	2,716	2,804	2,909
Man.	1,848	1,847	1,850	1,829	1,801	1,807	1,759	1,719	1,741	1,841
Sask.	2,619	2,598	2,375	2,412	2,484	2,488	2,370	2,426	2,436	2,471
Alta.	1,996	2,003	1,969	1,909	1,931	1,898	1,996	2,040	2,134	2,168
B.C.	2,890	2,742	2,546	2,441	2,379	2,416	2,400	2,424	2,433	2,394
Y.T. & N.W.T.	..	..	..	..	..	..	..	..	..	..
Canada	2,385	2,362	2,312	2,285	2,215	2,215	2,222	2,250	2,303	2,356

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

#### Sources

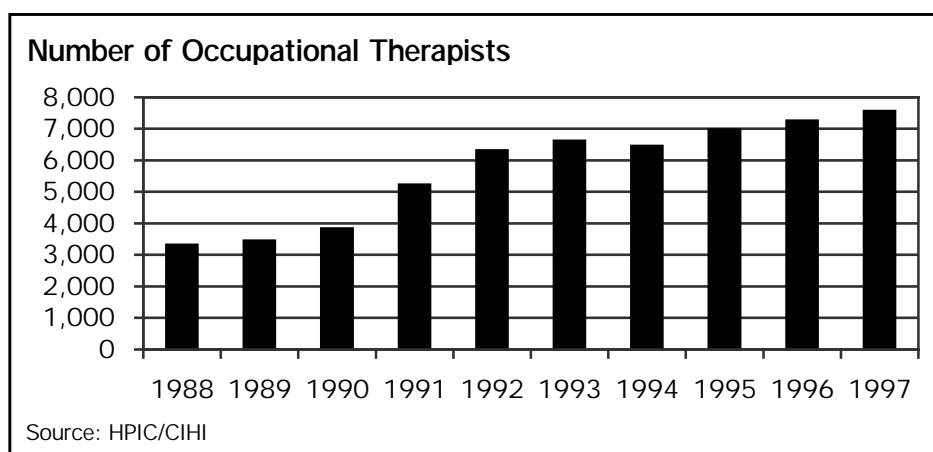
- Figure 17 Calculated from data in Table 10.1.
- Table 10.1 1988–1992: Canadian Association of Medical Radiation Technologists and Ordre des techniciens en radiologie du Québec;  
1993–1997: Canadian Association of Medical Radiation Technologists and Ordre des Technologues en Radiologie du Québec.
- Table 10.2 Data calculated based on Table 10.1 and population estimates from Statistics Canada shown in Appendix A.

## Occupational Therapists

### *Description*

Occupational therapists (OTs) help rehabilitate developmentally and physically disabled people by planning and carrying out individually designed programs involving them in activities such as personal care, work, education or recreation. Occupational therapists duties include: observing patients and consulting physicians' prognoses to assess patients' emotional and physical capacities; developing treatment programs which may include manual and creative arts, industrial and vocational skills and recreational activities; implementing the treatment programs with the patient; evaluating patients progress; maintaining clinical and statistical records; advising on health risks in the workplace; participating in programs, such as pre-retirement programs, to prevent physical or mental health problems; and conducting research in occupational therapy. Occupational therapists are generally employed in health care institutions, clinics, schools, social agencies, or in private practice. Some occupational therapists specialize in working with a specific age group, or with clients who have a specific disability such as arthritis, burns or schizophrenia.

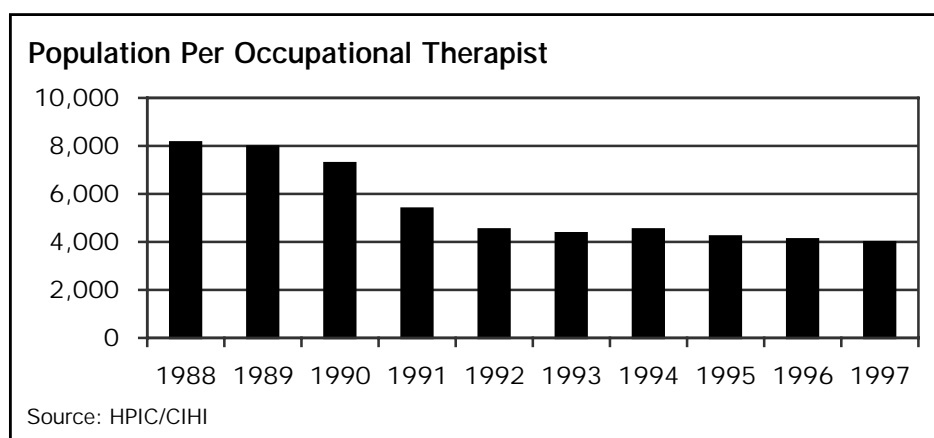
### **Analysis**



**Figure 18. Number of Active Occupational Therapists, Canada, 1988–1997**

Figure 18 shows the number of active occupational therapists by province for 1988 to 1997. Significant increases are attributed in part to changes in regulatory requirements in a number of provinces, resulting in an overall growth of 127.5% in Canada over this ten-year period. As shown in Table 11.1, the province of Ontario has experienced an increase of 215.8%, with the number of active occupational therapists increasing from 872 in 1988 to 2,754 in 1997.





**Figure 19. Population Per Active Occupational Therapist, Canada, 1988–1997**

The population per active occupational therapist is shown in Figure 19 and in Table 11.2. As expected, the population per therapist has decreased significantly over this period.

The number of graduates of occupational therapy programs in Canada is presented in Table 11.3. Between 1988 and 1997, the number of graduates increased 72.6%, resulting from, and contributing to, the increase in Canada in the number of active occupational therapists.

**Table 11.1 Number of Active Occupational Therapists by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	46	45	57	51	54	80	81	92	103	108
P.E.I.	21	19	20	22	26	29 <sup>2</sup>	33 <sup>2</sup>	36 <sup>2</sup>	39 <sup>2</sup>	41 <sup>2</sup>
N.S.	108 <sup>1</sup>	125	123	133	154	173 <sup>2</sup>	194 <sup>2</sup>	215 <sup>2</sup>	232 <sup>2</sup>	242 <sup>2</sup>
N.B.	88	94	120	110	128	147	162	158	153	172
Que.	1,003	1,147	1,243	1,340 <sup>1</sup>	1,558	1,666	1,821	1,968	2,087	2,192
Ont.	872	983	1,094	1,999	2,495	2,802 <sup>2</sup>	2,400 <sup>1</sup>	2,641	2,668	2,754
Man.	236	223	257	224	265	245	250	253	281	283
Sask.	83	92	114	108	113	127 <sup>2</sup>	124	136	146	172
Alta.	398	435	452 <sup>1</sup>	566	662	659	660	674	707	722
B.C.	467	284 <sup>3</sup>	350 <sup>1</sup>	677	857	685	737	794	836	865
Y.T. & N.W.T.	..	..	..	..	..	..	..	6	7	7
Canada	3,322	3,447	3,830	5,230	6,312	6,613	6,462	6,973	7,259	7,558

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Estimate.
- 2. CIHI estimate.
- 3. Decrease was a result of late membership renewals caused by a labour dispute in June 1989.

**Table 11.2 Population Per Active Occupational Therapist by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	12,514	12,812	10,144	11,361	10,759	7,218	7,050	6,134	5,412	5,087
P.E.I.	6,190	6,859	6,524	5,937	5,064	4,553	4,104	3,730	3,492	3,348
N.S.	8,337	7,256	7,417	6,897	5,987	5,351	4,780	4,320	4,030	3,867
N.B.	8,324	7,844	6,193	6,789	5,847	5,104	4,640	4,762	4,924	4,383
Que.	6,866	6,069	5,658	5,286	4,585	4,316	3,968	3,689	3,495	3,341
Ont.	11,441	10,371	9,469	5,246	4,261	3,836	4,537	4,176	4,188	4,116
Man.	4,667	4,945	4,305	4,957	4,207	4,572	4,503	4,470	4,040	4,015
Sask.	12,306	10,987	8,793	9,270	8,881	7,939	8,161	7,473	6,991	5,949
Alta.	6,220	5,793	5,690	4,617	4,009	4,078	4,123	4,094	3,969	3,976
B.C.	6,764	11,440	9,538	5,058	4,114	5,298	5,071	4,830	4,695	4,617
Y.T. & N.W.T.	..	..	..	..	..	..	..	16,408	14,232	14,231
Canada	8,140	7,971	7,275	5,389	4,523	4,365	4,518	4,232	4,110	3,990

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 11.3 Number of Graduates of B.Sc. Programs for Occupational Therapy, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
Dalhousie University	25	25	23	30	30	32	35	35	36	36
<b>Que.</b>	<b>134</b>	<b>121</b>	<b>129</b>	<b>136</b>	<b>166</b>	<b>173</b>	<b>191</b>	<b>200</b>	<b>198</b>	<b>187</b>
McGill University	44	41	45	44	46	51	64	75	56	69
Université de Montréal	47	42	47	53	73	63	73	73	77	60
Université Laval	43	38	37	39	47	59	54	52	65	58
<b>Ont.</b>	<b>93</b>	<b>95</b>	<b>93</b>	<b>118</b>	<b>109</b>	<b>166</b>	<b>201</b>	<b>215</b>	<b>233</b>	<b>269</b>
University of Ottawa	..	..	..	..	..	18	32	22	28	20
Queen's University	21	20	26	16	23	33	41	32	38	38
University of Toronto	40	41	35	70	52	51	49	63	67	104
McMaster University	..	..	..	..	..	30	31	56	54	64
University of Western Ontario	32	34	32	32	34	34	48	42	46	43
<b>Man.</b>										
University of Manitoba	22	24	23	20	27	30	26	31	30	29
<b>Alta.</b>										
University of Alberta	76	73	78	46	48	64	80	75	75	77
<b>B.C.</b>										
University of British Columbia	18	22	21	29	33	30	34	34	37	31
<b>Total</b>	<b>368</b>	<b>360</b>	<b>367</b>	<b>379</b>	<b>413</b>	<b>495</b>	<b>567</b>	<b>590</b>	<b>609</b>	<b>629</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

## **Sources**

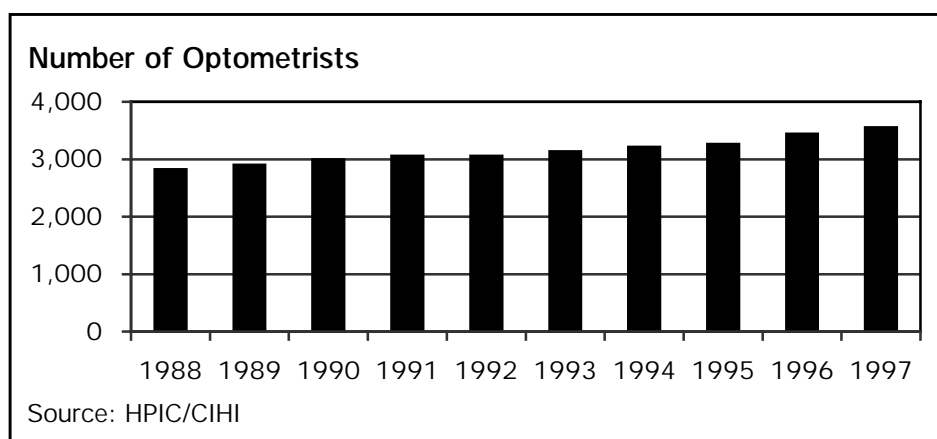
- Figure 18      Calculated from data in Table 11.1.
- Figure 19      Calculated from data in Table 11.2.
- Table 11.1     1988–1990: Provincial occupational therapy organizations;  
1991–1992: The Canadian Association of Occupational Therapists, Ordre des ergothérapeutes du Québec;  
1993–1997: Provincial occupational therapy organizations (Newfoundland and Labrador Occupational Therapy Board, New Brunswick Association of Occupational Therapists, Ordre des ergothérapeutes du Québec, College of Occupational Therapists of Ontario, Association of Occupational Therapists of Manitoba, Saskatchewan Society of Occupational Therapists, Alberta Association of Registered Occupational Therapists, British Columbia Society of Occupational Therapists, Association of Yukon Occupational Therapists, and NWT Occupational Therapists Association).
- Table 11.2     Data calculated based on Table 11.1 and population estimates from Statistics Canada shown in Appendix A.
- Table 11.3     Data provided by individual universities (McGill University, University of Ottawa, Queen's University, University of Toronto, McMaster University, University of Western Ontario, University of Manitoba), and Statistics Canada.

## Optometrists

### *Description*

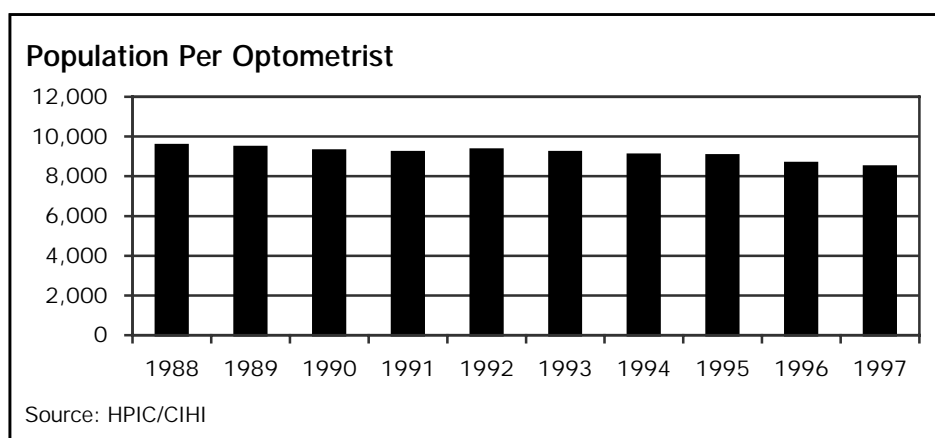
Optometrists examine patient's eyes and prescribe treatment when there is a problem. The duties of an optometrist include: determining the presence of vision problems, eye disease or other abnormal conditions by using special tests and instruments; prescribing treatment (excluding surgery) to conserve, improve and correct vision and other ocular disorders; prescribing and fitting eyeglasses and contact lenses; counselling patients on contact lens use and care, visual hygiene, lighting arrangements, working distances and safety factors; and referring patients to ophthalmologists or other physicians and surgeons when ocular or other diseases are found. Optometrists work in private practice and in clinics and community health centres. Many optometrists dispense the lenses they prescribe to patients. Some optometrists specialize in areas such as in fitting visual aids for people who are partially blind, fitting contact lenses or correcting special vision problems.

### Analysis



**Figure 20. Number of Registered Optometrists, Canada, 1988–1997**

Figure 20 illustrates the number of registered optometrists in Canada from 1988 to 1997. During this ten-year period the number increased 25.8%, from 2,826 in 1988 to 3,554 in 1997. Data in Table 12.1 indicate the most significant provincial/territorial increases were experienced in British Columbia and Alberta, where the number of registered optometrists increased by 61.6% and 36.1%, respectively. Prince Edward Island was the only province to have a decrease.



**Figure 21. Population Per Registered Optometrist, Canada, 1988–1997**

The population per registered optometrist is shown in Figure 21 and in Table 12.2. There is a slight reduction in the population per optometrist across Canada, but the ratio varies between provinces and territories.

Table 12.3 shows the number of active optometrists by province/territory and by year. From 1988 to 1997, the number of active optometrists increased 17.6% in Canada. When compared to Table 12.1, the percentage of active optometrists to total optometrists is decreasing. In 1988, 92.0% of registered optometrists were active, while in 1997 the percentage had decreased to 86.0%.

Table 12.4 shows the number of graduates from the two optometry programs in Canada for the years 1988 to 1997. The number of graduates has fluctuated slightly each year, although 1993 produced the largest number of graduates (113).

**Table 12.1 Number of Registered Optometrists by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	36	37	38	35	37	36	36	39	40	37
P.E.I.	14	13	14	10	10	11	11	11	11	12
N.S.	65	74	69	77	80	67	66	66	68	70
N.B.	85	89	94	91	95	97 <sup>1</sup>	99 <sup>1</sup>	100 <sup>1</sup>	102 <sup>1</sup>	105 <sup>1</sup>
Que.	1,007	1,038	1,069	1,111	1,065	1,124	1,159	1,170	1,194	1,206
Ont.	934	947	980	980	1,006	1,026	1,043	1,046	1,103	1,165
Man.	81	81	82	86	90	89	89	91	89	87
Sask.	97	95	98	101	98	98	101	106	110	112
Alta.	227	234	243	249	228	263	273	288	305	309
B.C.	276	291	310	311	343	319	333	341	416	446
Y.T. & N.W.T.	*	*	*	6	*	*	*	*	*	*
Canada	2,826	2,903	3,000	3,057	3,056	3,134	3,214	3,263	3,442	3,554

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. CIHI estimate.

**Table 12.2 Population Per Registered Optometrist by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	15,991	15,582	15,216	16,555	15,702	16,039	15,862	14,469	13,937	14,850
P.E.I.	9,285	10,024	9,320	13,060	13,168	12,088	12,217	12,321	12,414	11,385
N.S.	13,853	12,256	13,222	11,914	11,525	13,814	14,046	14,086	13,726	13,354
N.B.	8,618	8,285	7,907	8,206	7,879	7,746	7,615	7,493	7,386	7,173
Que.	6,838	6,707	6,579	6,376	6,708	6,397	6,234	6,204	6,109	6,072
Ont.	10,681	10,765	10,571	10,700	10,567	10,478	10,441	10,544	10,130	9,729
Man.	13,599	13,615	13,491	12,910	12,387	12,585	12,650	12,426	12,756	13,060
Sask.	10,530	10,640	10,228	9,912	10,240	10,283	10,019	9,588	9,280	9,135
Alta.	10,905	10,769	10,584	10,494	11,640	10,218	9,967	9,581	9,201	9,291
B.C.	11,445	11,165	10,769	11,010	10,279	11,376	11,224	11,245	9,435	8,954
Y.T. & N.W.T.	*	*	*	15,163	*	*	*	*	*	*
Canada	9,569	9,464	9,288	9,219	9,342	9,211	9,083	9,045	8,667	8,486

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 12.3 Number of Active Optometrists by Province/Territory of Practice, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	34	31	32	30	33	32	32	34	34	32
P.E.I.	10	11	11	10	10	11	11	11	11	12
N.S.	58	63	64	65	68	67	66	66	68	70
N.B.	77	77	78	77	79	80 <sup>1</sup>	81 <sup>1</sup>	83 <sup>1</sup>	85 <sup>1</sup>	88 <sup>1</sup>
Que.	978	1,009	1,043	1,082	1,036	1,048 <sup>1</sup>	1,067 <sup>1</sup>	1,086 <sup>1</sup>	1,119	1,057
Ont.	821	817	836	836	857	885	914	941	1,001	1,050
Man.	77	77	79	79	82	80	79	80	81	78
Sask.	95	95	98	101	98	98	101	106	110	112
Alta.	219	218	220	219	216	219 <sup>1</sup>	222 <sup>1</sup>	226 <sup>1</sup>	232 <sup>1</sup>	240 <sup>1</sup>
B.C.	228	233	238	239	250	253 <sup>1</sup>	257 <sup>1</sup>	262 <sup>1</sup>	298	315
Y.T. & N.W.T.	*	*	*	6	5	..	..	..	..	..
Canada	2,597	2,631	2,699	2,744	2,734	2,773	2,831	2,896	3,039	3,053

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. CIHI estimate.

**Table 12.4 Number of Graduates of Optometry Programs, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Université de Montréal										
B.Sc.	43	43	43	35	44	47	41	40	40	36
M.Sc.	..	..	..	..	..	-	-	*	*	*
University of Waterloo										
B.Sc.	57	57	57	60	60	61	60	60	60	58
M.Sc.	..	..	..	..	..	*	*	*	*	*
Doctorate	..	..	..	..	..	*	*	-	*	*
Total	100	100	100	95	104	113	108	110	105	97

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

## **Sources**

Figure 20	Calculated from data in Table 12.1.
Figure 21	Calculated from data in Table 12.2.
Table 12.1	1988–1992: Canadian Association of Optometrists, Governments of the Yukon and Northwest Territories;  1993–1997: data supplied by provincial organizations (Newfoundland Association of Optometrists, PEI Optometrists Association, Nova Scotia Association of Optometrists, Québec Order of Optometrists, Ontario Association of Optometrists, Manitoba Association of Optometrists, the Saskatchewan Association of Optometrists, Alberta College of Optometrists, and Board of Examiners in Optometry-British Columbia).
Table 12.2	Data calculated based on Table 12.1 and population estimates from Statistics Canada shown in Appendix A.
Table 12.3	1988–1992: Canadian Association of Optometrists, Governments of the Yukon and Northwest Territories;  1993–1997: data supplied by provincial organizations (Newfoundland Association of Optometrists, PEI Optometrists Association, Nova Scotia Association of Optometrists, Association des optométristes du Québec, Ontario Association of Optometrists, Manitoba Association of Optometrists, the Saskatchewan Association of Optometrists, Alberta College of Optometrists, and Board of Examiners in Optometry – British Columbia).
Table 12.4	Data provided by Statistics Canada.



## Pharmacists

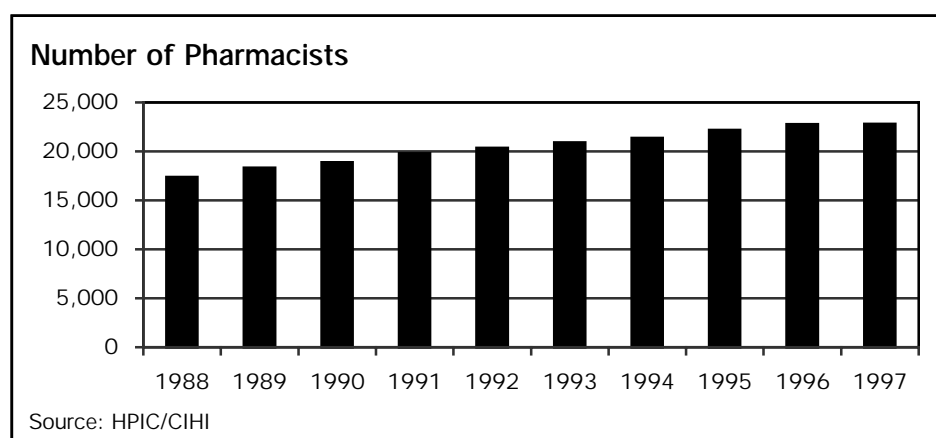
### *Description*

Pharmacists prepare and dispense prescription drugs, ensure proper storage and handling of drugs, provide advice to customers and medical personnel on the administration, uses and effects of prescription and non-prescription drugs, check prescriptions for overdoses and drug interactions and keep records of dispensed drugs and health care services.

Duties of a pharmacist can include: checking prescriptions for proper dosage; compounding prescribed pharmaceutical products; dispensing prescribed pharmaceuticals to customers or to other health care professionals; advising customers and other health care professionals on the administration, uses and effects of the medication, drug incompatibilities and contra-indications; maintaining medication profiles of customers including registry of poisons and narcotic and controlled drugs; ensuring proper storage of vaccines, serums, biologicals and other pharmaceutical products to prevent deterioration; ordering and maintaining a stock of pharmaceutical supplies; advising customers on selection and use of non-prescription medication; participating in basic research work for the development of new drugs; formulating new drug products developed by medical researchers; testing new drug products; co-ordinating clinical investigations of new drugs; controlling the quality of drug products during production; developing informational materials concerning the uses and properties of particular drugs; and evaluating labelling, packaging and advertising of drug products.

Pharmacists generally specialize as community, hospital or industrial pharmacists. Community pharmacists own or work in community pharmacies, while hospital pharmacists work as staff pharmacists or as part of a team of health care professionals serving individual patients. Industrial pharmacists participate in the research, development, manufacturing, and sales of pharmaceutical products.

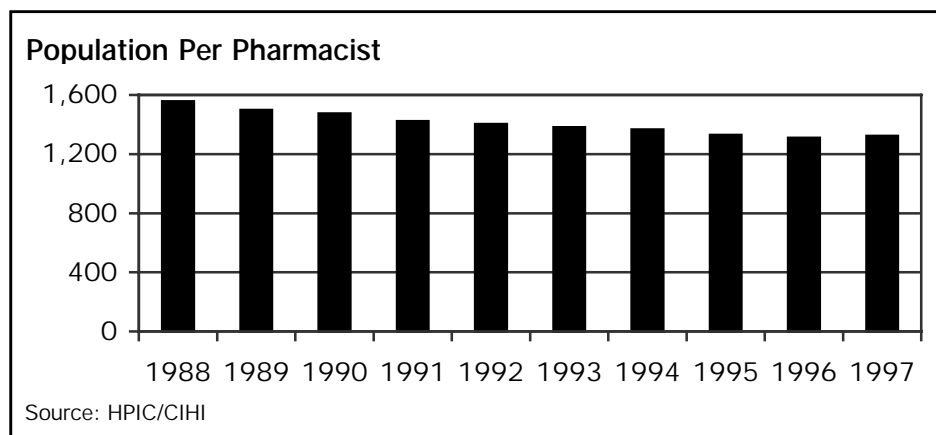
### **Analysis**



**Figure 22. Number of Licensed Pharmacists, Excluding Non-Practicing and Honorary Pharmacists and Certified Clerks, Canada 1988–1997**

The number of licensed pharmacists in Canada, excluding non-practicing and honorary pharmacists and certified clerks, is illustrated in Figure 22.

Over this ten-year period the number of licensed practicing pharmacists grew by 31.2% in Canada. This increase was evenly distributed across the country, as each province and territory experienced individual growth of at least 20 percent. Table 13.1 shows that significant increases occurred in Prince Edward Island (54.8%) and Ontario (37.1%).



**Figure 23. Population Per Licensed Pharmacist, Excluding Non-Practicing and Honorary Pharmacists and Certified Clerks, Canada, 1988–1997**

The population per licensed practicing pharmacist is illustrated in Figure 23 and in Table 13.2. As expected, the population per licensed pharmacist rate has steadily decreased in all provinces and territories since 1988.

Table 13.3 shows the number of licensed pharmacists including those who are non-practicing, honorary members and certified clerks. The percent increase in total licensed pharmacists is similar in pattern to the increase witnessed in Table 13.1; a significant difference is the large increase in British Columbia (83.4%) compared to the small increase in Alberta (15.1%).

The number of graduates of pharmacy programs in Canada is shown in Table 13.4, with a gender breakdown of the graduates in Tables 13.5 and 13.6. The proportion of male to female graduates has stayed relatively stable (approximately a 40 male:60 female ratio) over the ten year period.

**Table 13.1 Number of Licensed Pharmacists, Excluding Non-Practicing and Honorary Pharmacists and Certified Clerks, by Province/Territory of Practice, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	402	396	412	414	444	455	445	484	483	489
P.E.I.	73	79	84	85	97	104	101	112	111	113
N.S.	650	662	691	707	737	740	761	788	828	818
N.B.	377	390	412	430	435	493	477	478	511	533
Que.	3,978	4,122	4,342	4,742	4,586	4,718	4,860	5,342	5,387	5,148
Ont.	5,783	6,259	6,499	6,772	7,136	7,345	7,531	7,666	7,852	7,928
Man.	752	838	799	819	826	858	846	858	914	906
Sask.	883	863	967	975	980	983	1,013	1,043	1,049	1,080
Alta.	2,133	2,313	2,262	2,354	2,516	2,515	2,538	2,545	2,609	2,686
B.C.	2,301	2,374	2,391	2,473	2,548	2,645	2,747	2,812	2,946	3,032
Y.T.	19	13	12	13	12	26	37	27	30	30
N.W.T.	23	28	25	26	28	19	24	42	47	36
Canada	17,374	18,337	18,896	19,810	20,345	20,901	21,380	22,197	22,767	22,799

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 13.2 Population Per Licensed Pharmacist, Excluding Non-Practicing and Honorary Pharmacists and Certified Clerks, by Province/Territory of Practice, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	1,432	1,456	1,403	1,400	1,308	1,269	1,283	1,166	1,154	1,124
P.E.I.	1,781	1,650	1,553	1,537	1,357	1,279	1,331	1,210	1,230	1,209
N.S.	1,385	1,370	1,320	1,298	1,251	1,251	1,218	1,180	1,127	1,143
N.B.	1,943	1,891	1,804	1,737	1,721	1,522	1,576	1,574	1,474	1,414
Que.	1,731	1,689	1,620	1,494	1,558	1,524	1,487	1,359	1,354	1,422
Ont.	1,725	1,629	1,594	1,548	1,490	1,464	1,446	1,439	1,423	1,430
Man.	1,465	1,316	1,385	1,356	1,350	1,305	1,331	1,318	1,242	1,254
Sask.	1,157	1,171	1,037	1,027	1,024	1,025	999	974	973	947
Alta.	1,161	1,090	1,137	1,110	1,055	1,069	1,072	1,084	1,076	1,069
B.C.	1,373	1,369	1,396	1,385	1,384	1,372	1,361	1,364	1,332	1,317
Y.T.	1,413	2,115	2,346	2,257	2,516	1,154	819	1,166	1,071	1,070
N.W.T.	2,451	2,063	2,389	2,371	2,245	3,391	2,749	1,594	1,436	1,876
Canada	1,556	1,498	1,475	1,423	1,403	1,381	1,365	1,329	1,310	1,323

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 13.3 Number of Licensed Pharmacists, Including Non-Practicing and Honorary Pharmacists and Certified Clerks, by Province/Territory of Practice, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	425	414	434	458	476	491	486	529	526	524
P.E.I.	73	79	84	95	97	107	104	114	114	115
N.S.	752	770	803	871	788	849	874	899	902	844
N.B.	446	453	479	545	498	596	555	549	578	570
Que.	4,384	4,323	4,358	4,860	5,265	4,988	5,222	5,716	5,761	5,631
Ont.	7,206	7,426	7,652	7,854	8,083	8,169	8,326	8,479	8,543	8,615
Man.	931	1,015	1,006	1,031	1,032	1,075	1,088	1,022	1,100	1,093
Sask.	1,212	1,282	1,356	1,354	1,369	1,367	1,413	1,421	1,428	1,506
Alta.	2,734	2,944	2,849	2,940	3,049	3,060	3,125	3,134	3,132	3,148
B.C.	2,427	2,584	3,059	3,312	3,392	3,552	3,850	3,987	3,960	4,451
Y.T.	19	13	13	13	12	26	37	27	30	30
N.W.T.	28	36	28	30	32	19	24	49	47	36
Canada	20,637	21,339	22,121	23,363	24,093	24,299	25,104	25,926	26,121	26,563

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 13.4 Number of Degree Graduates of Schools for Pharmacy, by Gender, Year, and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Memorial University</b>	..	..	25	33	31	31	32	33	29	34
Males	..	..	15	11	12	12	12	17	13	17
Females	..	..	10	22	19	19	20	16	16	17
<b>Dalhousie University</b>	56	66	63	63	63	63	60	67	63	69
Males	8	16	19	21	18	18	15	23	19	19
Females	48	50	44	42	45	45	45	44	44	50
<b>Université Laval</b>	83	85	105	97	98	98	94	96	114	120
Males	21	19	34	26	30	30	25	33	37	37
Females	62	66	71	71	68	68	69	63	77	83
<b>Université de Montréal</b>	112	103	119	125	101	101	112	105	136	107
Males	38	29	27	37	29	29	31	31	53	37
Females	74	74	92	88	72	72	81	74	83	70
<b>University of Toronto<sup>1</sup></b>	156	152	159	158	149	149	146	159	161	- <sup>2</sup>
Males	49	42	55	65	57	57	57	65	65	-
Females	107	110	104	93	92	92	89	94	96	-
<b>University of Manitoba</b>	40	38	41	49	46	46	46	44	28	49
Males	26	24	14	26	19	19	22	24	8	27
Females	14	14	27	23	27	27	24	20	20	22
<b>University of Saskatchewan</b>	58	74	71	68	74	74	67	73	76	78
Males	36	29	26	31	31	31	27	37	31	23
Females	22	45	45	37	43	43	40	36	45	55
<b>University of Alberta<sup>1</sup></b>	102	104	113	115	102	102	105	102	101	98
Males	44	38	40	54	46	46	59	47	42	31
Females	58	66	73	61	56	56	46	55	59	67
<b>University of British Columbia<sup>1</sup></b>	115	91	121	118	107	107	102	108	119	119
Males	56	33	63	50	58	58	52	53	48	41
Females	59	58	58	68	49	49	50	55	71	78
<b>Total</b>	<b>722</b>	<b>713</b>	<b>817</b>	<b>826</b>	<b>771</b>	<b>771</b>	<b>764</b>	<b>787</b>	<b>827</b>	<b>674</b>

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes graduates from Master's degree program.
- 2. No graduating class of 1997 due to a change in program length.

#### Sources

Figure 22 Calculated from data in Table 13.1.

Figure 23 Calculated from data in Table 13.2.

Table 13.1 1988–1992: Canadian Pharmaceutical Association, Government of the Yukon, Government of the Northwest Territories;  
1993–1994: Canadian Pharmaceutical Association;  
1995–1997: National Association of Pharmacy Regulatory Authorities.

Table 13.2 Data calculated based on Table 13.1 and population estimates from Statistics Canada shown in Appendix A.

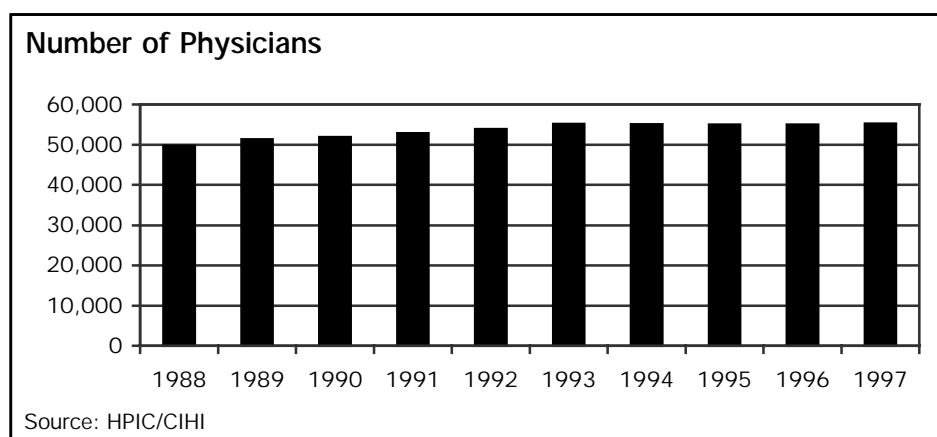
- Table 13.3    1988–1992: Canadian Pharmaceutical Association, Government of the Yukon, Government of the Northwest Territories;  
                  1993–1994: Canadian Pharmaceutical Association;  
                  1995–1997: National Association of Pharmacy Regulatory Authorities.
- Table 13.4    The Pharmacy Examining Board of Canada.
- Table 13.5    The Pharmacy Examining Board of Canada.
- Table 13.6    The Pharmacy Examining Board of Canada.

## Physicians

### Description

Physicians prevent and treat human illness and injury through surgery, diagnosis, prescription and therapy. The general duties of physicians include: examining patients, ordering laboratory tests, X-rays and other diagnostic procedures and consulting with other medical practitioners to evaluate patients' health; prescribing and administering medications and treatments; and advising patients on health care. Physicians train specifically as family physicians or as specialists in laboratory, surgical or medical specialties and activities will vary depending on the type of practice. Many physicians work in private practice, although others are employed in hospitals, community health centres and clinics, laboratories, or government.

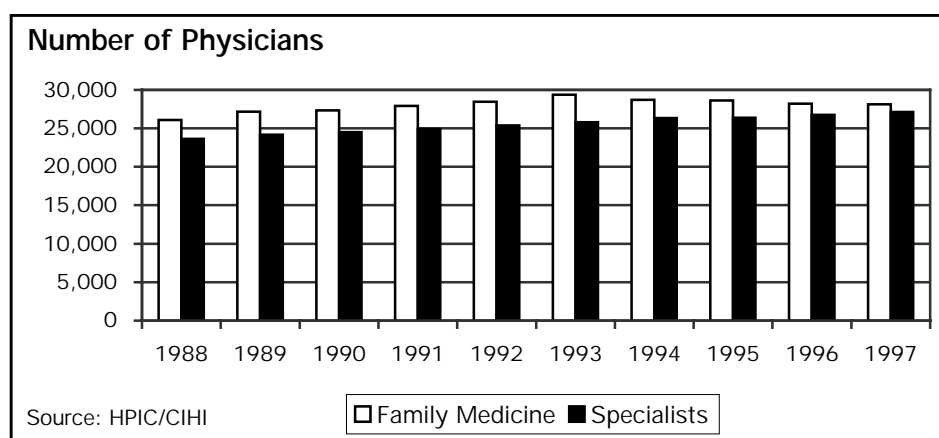
### Analysis



**Figure 24. Total Number of Active Civilian Physicians, Excluding Interns and Residents, Canada, 1988–1997**

The number of active civilian physicians in Canada, excluding interns and residents, is illustrated in Figure 24 and Table 14.1. The total number of active civilian physicians in Canada has increased from 49,706 in 1988 to 55,243 in 1997, an increase of 11.1%.

Despite this national increase two provinces, Prince Edward Island (-11.3%), and Saskatchewan (-2.3%) experienced a decline in the total number of physicians over this ten-year period. In addition, Newfoundland in 1997 showed only a 0.3% increase over 1988, although there was great fluctuation in the intervening years. The Yukon and the Northwest Territories experienced the greatest percentage increase in the number of physicians between 1988 and 1997, although the actual numbers remain comparatively small.



**Figure 25. Number of Active Civilian Physicians, Excluding Interns and Residents, by Physician Type, Canada, 1988–1997**

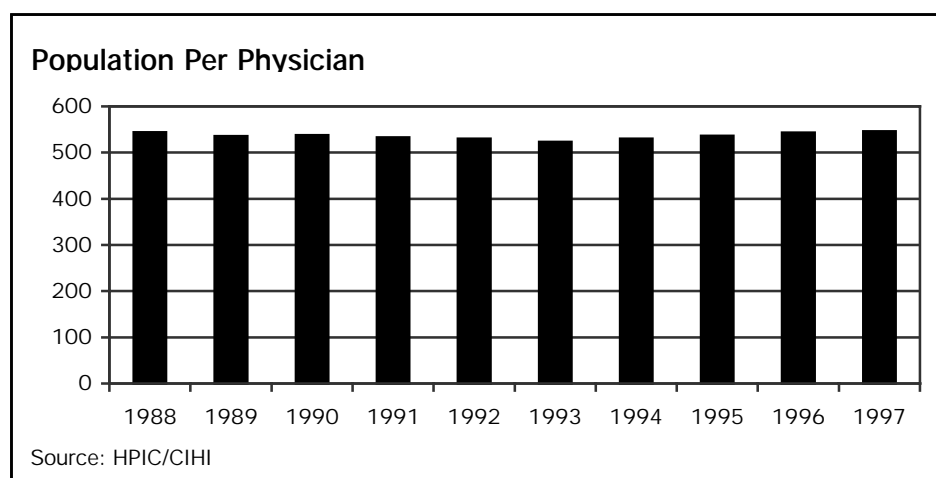
A breakdown of physician type (family medicine or specialist) is illustrated in Figure 25 and in Tables 14.4 and 14.5, respectively.

Although the number of family medicine physicians in Canada was greater in 1997 than in 1988, that total has been in decline since 1993. In the last five years of this reporting period, the number of family medicine physicians *fell* by 4.3%, from 29,361 in 1993 to 28,108 in 1997.

Conversely, the number of specialists in Canada rose steadily over this ten-year period, from 23,627 in 1988 to 27,135 in 1997, an increase of 14.9%. This increase, coupled with the recent decline in the number of family medicine physicians, is leading toward an equitable fifty-fifty ratio between the number of family physicians and the number of specialists practicing in Canada.

The total number of active civilian physicians, *including* interns and residents, is shown in Table 15.3. Due to the reduction of a number of training positions available for interns and residents in the early 1990s in Canada, the 9.9% growth shown in Table 15.3 is less than the growth of Table 15.1, which excludes interns and residents from the totals.





**Figure 26. Population Per Active Civilian Physician, Excluding Interns and Residents, by Physician Type, Canada, 1988–1997**

Figure 26 and Table 14.2 illustrate the population per active civilian physician, excluding interns and residents. From 1993 to 1997, the growth rate of the Canadian population exceeded the growth rate in the total number of Canadian physicians; consequently, the population per active civilian physician has risen each year since 1993.

The number and percent distribution of active civilian physicians are identified by place of M.D. graduation in Table 14.6. The percentage of physicians who are graduates of foreign universities has declined for both family physicians and for specialists. Whereas in 1988 the percentage of foreign-trained physicians was 26.9%, this percentage has decreased to 23.9% in 1997.

The number of graduates from Canadian medical schools is shown in Table 14.7. Decisions made in the early 1990s to reduce the number of positions in medical schools has contributed to a decrease in the number graduates in the late 1990s. In 1997 there were 11.5% fewer medical graduates than in 1988.

**Table 14.1 Total Number of Active Civilian Physicians<sup>1</sup> Excluding Interns and Residents, by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	929	973	931	910	892	971	968	940	928	932
P.E.I.	186	180	177	175	173	179	178	176	170	165
N.S.	1,676	1,752	1,751	1,760	1,759	1,857	1,775	1,733	1,746	1,766
N.B.	935	966	977	1,010	1,024	1,056	1,075	1,108	1,122	1,127
Que.	13,611	13,767	13,992	14,241	14,534	14,842	15,016	15,159	15,243	15,315
Ont.	18,685	19,598	19,782	20,125	20,473	20,799	20,581	20,447	20,216	20,202
Man.	1,833	1,928	1,953	2,011	1,995	2,017	1,978	1,983	1,973	2,013
Sask.	1,508	1,520	1,507	1,510	1,493	1,507	1,545	1,527	1,475	1,474
Alta.	4,065	4,151	4,209	4,351	4,441	4,584	4,552	4,485	4,472	4,511
B.C.	6,200	6,396	6,477	6,682	6,953	7,243	7,266	7,341	7,505	7,622
Y.T.	35	38	39	38	38	39	42	44	47	50
N.W.T.	43	45	46	50	61	61	64	63	61	66
<b>Canada</b>	<b>49,706</b>	<b>51,314</b>	<b>51,841</b>	<b>52,863</b>	<b>53,836</b>	<b>55,155</b>	<b>55,040</b>	<b>55,006</b>	<b>54,958</b>	<b>55,243</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Active civilian physicians are defined as civilian physicians – whether or not registered, whether or not in private practice, whether or not involved in direct patient care- with a known address in Canada at the end of the year. Excluded are retired and semi-retired physicians, those reported as being abroad, those in the Armed Forces, or those with a (temporarily) unknown address in Canada.

**Table 14.2 Population Per Active Civilian Physician Excluding Interns and Residents, by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	620	593	621	637	651	595	590	600	601	590
P.E.I.	699	724	737	746	761	743	755	770	803	828
N.S.	537	518	521	521	524	498	522	536	535	529
N.B.	783	763	761	739	731	710	699	679	671	669
Que.	506	506	503	497	492	484	481	479	478	478
Ont.	534	520	524	521	519	517	529	539	553	561
Man.	601	572	566	552	559	555	569	570	575	564
Sask.	677	665	665	663	672	669	655	666	692	694
Alta.	609	607	611	601	598	586	598	615	628	636
B.C.	509	508	515	512	507	501	514	522	523	524
Y.T.	767	724	722	772	794	769	721	716	684	642
N.W.T.	1,311	1,284	1,298	1,233	1,030	1,056	1,031	1,063	1,106	1,023
<b>Canada</b>	<b>544</b>	<b>535</b>	<b>537</b>	<b>533</b>	<b>530</b>	<b>523</b>	<b>530</b>	<b>536</b>	<b>543</b>	<b>546</b>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 14.3 Total Number of Active Civilian Physicians Including Interns and Residents, by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	1,124	1,168	1,121	1,104	1,096	1,169	1,170	1,150	1,137	1,148
P.E.I.	186	180	177	175	173	179	178	176	170	165
N.S.	2,068	2,147	2,127	2,139 <sup>1</sup>	2,129 <sup>1</sup>	2,232	2,153	2,106	2,118	2,138
N.B.	935	966	977	1,010	1,024	1,056	1,075	1,108	1,122	1,127
Que.	15,640	15,948	16,166	16,377	16,612	16,968	17,164	17,385	17,486	17,498
Ont.	21,438	22,276	22,444	23,172	23,170	23,446	23,236	23,107	22,885	22,832
Man.	2,191	2,279	2,307	2,383	2,360	2,370	2,331	2,346	2,318	2,358
Sask.	1,744	1,746	1,743	1,747	1,728	1,714	1,759	1,739	1,686	1,685
Alta.	4,780	4,825	4,903	5,097	5,139	5,313	5,288	5,235	5,233	5,269
B.C.	6,734	6,927	7,055	7,267	7,499	7,818	7,846	7,937	8,094	8,205
Y.T.	35	38	39	38	38	39	42	44	47	50
N.W.T.	43	45	46	50	61	61	64	63	61	66
Canada	56,918	58,545	59,105	60,559	61,029	62,365	62,306	62,396	62,357	62,541 <sup>2</sup>

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes interns and residents of New Brunswick and Prince Edward Island.
- 2. The published total from Southam Medical Database is incorrect.

**Table 14.4 Total Number of Active Civilian Family Medicine Physicians<sup>1</sup> Excluding Interns and Residents, by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	627	660	621	590	563	642	635	606	569	569
P.E.I.	117	110	102	105	105	107	105	100	99	95
N.S.	945	991	968	981	969	1,043	958	931	924	924
N.B.	538	568	585	600	606	632	639	660	662	657
Que.	6,695	6,808	6,897	7,019	7,217	7,420	7,421	7,528	7,561	7,559
Ont.	9,558	10,172	10,235	10,402	10,581	10,765	10,359	10,230	9,903	9,773
Man.	943	1,018	1,026	1,073	1,049	1,051	1,010	1,012	992	1,004
Sask.	970	961	949	948	933	949	949	932	879	868
Alta.	2,270	2,310	2,309	2,415	2,465	2,561	2,507	2,453	2,399	2,375
B.C.	3,351	3,494	3,571	3,722	3,899	4,106	4,048	4,080	4,144	4,189
Y.T.	30	33	33	40	34	36	37	39	40	43
N.W.T.	35	39	38	34	50	49	51	48	49	52
Canada	26,079	27,164	27,334	27,929	28,471	29,361	28,719	28,619	28,221	28,108

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes general practice, family medicine and emergency family medicine.

**Table 14.5 Total Number of Active Civilian Specialists Excluding Interns and Residents, by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	302	313	310	320	329	329	333	334	359	363
P.E.I.	69	70	75	70	68	72	73	76	71	70
N.S.	731	761	783	779	790	814	817	802	822	842
N.B.	397	398	392	410	418	424	436	448	460	470
Que.	6,916	6,959	7,095	7,222	7,317	7,422	7,595	7,631	7,682	7,756
Ont.	9,127	9,426	9,547	9,723	9,892	10,034	10,222	10,217	10,313	10,429
Man.	890	910	927	938	946	966	968	971	981	1,009
Sask.	538	559	558	562	560	558	596	595	596	606
Alta.	1,795	1,841	1,900	1,936	1,976	2,023	2,045	2,032	2,073	2,136
B.C.	2,849	2,902	2,906	2,960	3,054	3,137	3,218	3,261	3,361	3,433
Y.T. & N.W.T.	13	11	14	14	15	15	18	20	19	21
Canada	23,627	24,150	24,507	24,934	25,365	25,794	26,321	26,387	26,737	27,135

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 14.6 Counts and Percent Distribution of Active Civilian Physicians Excluding Interns and Residents, by Place of M.D. Graduation, Canada, 1988–1997**

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Family Medicine Physicians<sup>1</sup></b>	<b>26,079</b>	<b>27,164</b>	<b>27,334</b>	<b>27,929</b>	<b>28,471</b>	<b>29,361</b>	<b>28,719</b>	<b>28,619</b>	<b>28,221</b>	<b>28,108</b>
Grads of Canadian Universities	19,412	20,408	20,651	21,144	21,733	22,513	22,099	22,157	21,902	21,889
Grads of Foreign Universities	6,665	6,755	6,682	6,784	6,738	6,848	6,620	6,462	6,319	6,219
Unknown Place of Graduation	2	1	1	1	-	-	-	-	-	-
<b>Specialists<sup>2</sup></b>	<b>23,627</b>	<b>24,150</b>	<b>24,507</b>	<b>24,934</b>	<b>25,365</b>	<b>25,794</b>	<b>26,321</b>	<b>26,387</b>	<b>26,737</b>	<b>27,135</b>
Grads of Canadian Universities	16,905	17,343	17,684	18,081	18,442	18,819	19,249	19,397	19,736	20,134
Grads of Foreign Universities	6,720	6,806	6,822	6,853	6,923	6,975	7,072	6,990	7,001	7,001
Unknown Place of Graduation	2	1	1	-	-	-	-	-	-	-
<b>Total Active Physicians</b>	<b>49,706</b>	<b>51,314</b>	<b>51,841</b>	<b>52,863</b>	<b>53,836</b>	<b>55,155</b>	<b>55,040</b>	<b>55,006</b>	<b>54,958</b>	<b>55,243</b>
Grads of Canadian Universities	36,317	37,751	38,335	39,225	40,175	41,332	41,348	41,554	41,638	42,023
Grads of Foreign Universities	13,385	13,561	13,504	13,637	13,661	13,823	13,692	13,452	13,320	13,220
Unknown Place of Graduation	4	2	2	-	-	-	-	-	-	-
<b>Percent Distribution</b>										
<b>Family Medicine Physicians</b>	<b>52.5</b>	<b>52.9</b>	<b>52.7</b>	<b>52.8</b>	<b>52.9</b>	<b>53.2</b>	<b>52.2</b>	<b>52.0</b>	<b>51.4</b>	<b>50.9</b>
Grads of Canadian Universities	39.1	39.8	39.8	40.0	40.4	40.8	40.2	40.3	39.9	39.6
Grads of Foreign Universities	15.4	15.2	12.9	12.8	12.5	12.4	12.0	11.7	11.5	11.3
Unknown Place of Graduation	0.0	0.0	0.0	0.0	-	-	-	-	-	-
<b>Specialists</b>	<b>47.5</b>	<b>47.1</b>	<b>47.3</b>	<b>47.2</b>	<b>47.1</b>	<b>46.8</b>	<b>47.8</b>	<b>48.0</b>	<b>48.6</b>	<b>49.1</b>
Grads of Canadian Universities	34.0	33.8	34.1	34.2	34.3	34.1	35.0	35.3	35.9	36.4
Grads of Foreign Universities	15.5	15.3	15.2	13.0	12.9	12.6	12.8	12.7	12.7	12.7
Unknown Place of Graduation	0.0	0.0	0.0	-	-	-	-	-	-	-
<b>Total Active Physicians</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>
Grads of Canadian Universities	73.1	73.6	73.9	74.2	74.6	74.9	75.1	75.5	75.8	76.1
Grads of Foreign Universities	26.9	26.4	26.0	25.8	25.4	25.1	24.9	24.5	24.2	23.9
Unknown Place of Graduation	0.0	0.0	0.0	-	-	-	-	-	-	-

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Includes general practice, family medicine and emergency family medicine.
- 2. A specialist is classified according to his/her most recently obtained specialty.

**Table 14.7 Number of Graduates of Canadian Medical Schools, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Nfld.</b>										
Memorial University	55	54	56	58	59	51	55	63	54	55
<b>N.S.</b>										
Dalhousie University	94	97	90	91	81	83	86	83	85	81
<b>Que.</b>	<b>578</b>	<b>537</b>	<b>526</b>	<b>515</b>	<b>558</b>	<b>508</b>	<b>512</b>	<b>545</b>	<b>524</b>	<b>520</b>
Université Laval	137	125	121	119	145	112	112	129	128	132
Université de Sherbrooke	103	85	95	86	89	94	97	92	101	91
Université de Montréal	186	173	162	158	170	158	158	178	158	161
McGill University	152	154	148	152	154	144	145	146	137	136
<b>Ont.</b>	<b>605</b>	<b>587</b>	<b>593</b>	<b>604</b>	<b>597</b>	<b>611</b>	<b>587</b>	<b>607</b>	<b>586</b>	<b>510</b>
University of Ottawa	74	77	78	83	77	84	75	90	78	80
Queen's University	73	70	71	73	72	72	74	71	71	73
University of Toronto	244	236	245	251	246	248	242	253	242	174
McMaster University	105	102	99	98	98	102	90	100	100	89
University of Western Ontario	109	102	100	99	104	105	106	93	95	94
<b>Man.</b>										
University of Manitoba	89	93	86	76	82	81	79	85	76	69
<b>Sask.</b>										
University of Saskatchewan	57	57	54	54	55	64	64	55	62	55
<b>Alta.</b>	<b>185</b>	<b>174</b>	<b>190</b>	<b>183</b>	<b>196</b>	<b>189</b>	<b>191</b>	<b>181</b>	<b>180</b>	<b>169</b>
University of Alberta	120	104	116	115	123	117	121	111	113	112
University of Calgary	65	70	74	68	73	72	70	70	67	57
<b>B.C.</b>										
University of British Columbia	118	123	113	123	121	115	112	120	118	118
<b>Canada</b>	<b>1,781</b>	<b>1,722</b>	<b>1,708</b>	<b>1,704</b>	<b>1,749</b>	<b>1,702</b>	<b>1,686</b>	<b>1,739</b>	<b>1,685</b>	<b>1,577</b>

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

#### Sources

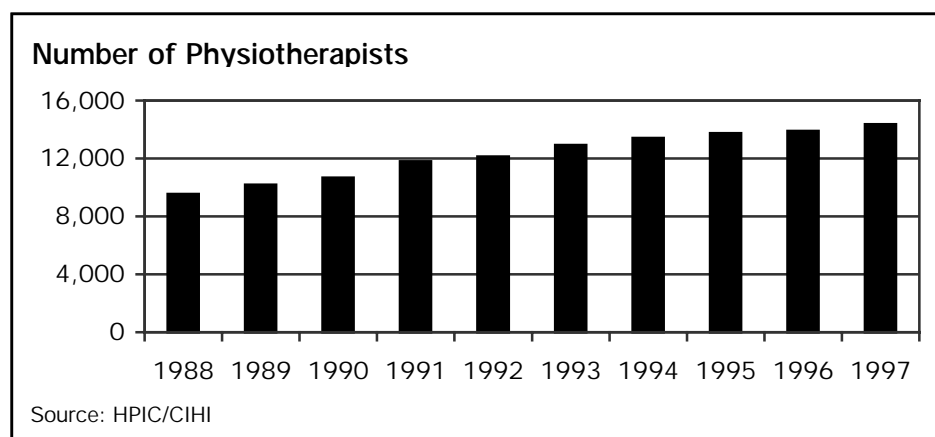
- Figure 24 Calculated from data in Table 14.1
- Figure 25 Calculated from data in Tables 14.4 and 14.5.
- Figure 26 Calculated from data in Table 14.2
- Table 14.1 Southam Medical Database, Canadian Institute for Health Information.
- Table 14.2 Data calculated based on Table 14.1 and populations from Statistics Canada shown in Appendix A.
- Table 14.3 Southam Medical Database, Statistics Canada, Canadian Post-MD Education Registry (CAPER).
- Tables 14.4–14.7 Southam Medical Database, Canadian Institute for Health Information.

## Physiotherapists

### Description

Physiotherapists (sometimes called physical therapists) plan and carry out physical therapy treatment programs for patients to restore function, relieve pain and prevent disability which results from disease, injury, or loss of a body part. Their duties include: testing and assessing a patient's physical abilities and monitoring their recovery; designing programs to improve, maintain or restore a patient's physical abilities and relieve pain; recommending exercise, hydrotherapy, massage, manipulations and the use of mechanical equipment; consulting with other health care professionals in the treatment of individual patients' ailments; developing and implementing health promotion programs; maintaining accurate statistical and clinical records; and conducting research in physiotherapy. Physiotherapists generally work in private practice or in hospitals, clinics, community health centres, rehabilitation centres, and extended care facilities. Physiotherapists may specialize in areas such as sports injuries, orthopaedics, neurology, paediatrics, oncology, burns or cardiovascular ailments.

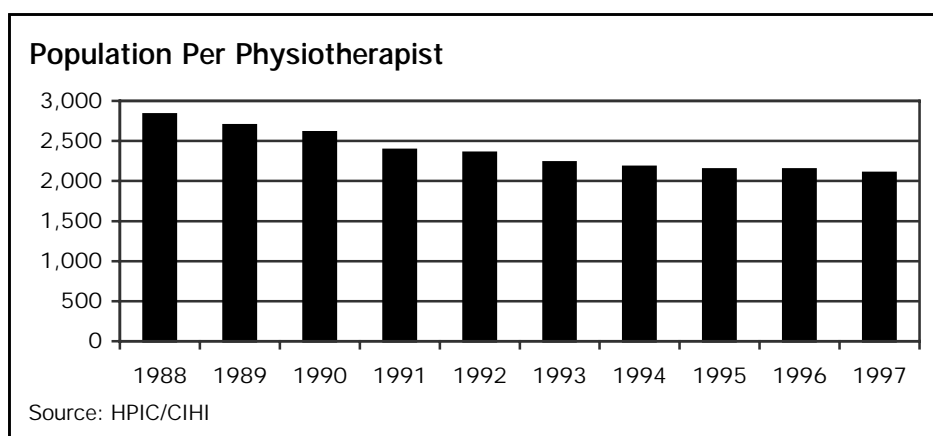
### Analysis



**Figure 27. Number of Physiotherapists Registered with the Canadian Alliance of Physiotherapy Regulators, Canada, 1988–1997**

The number of registered physiotherapists from 1988 to 1997 in Canada is illustrated in Figure 27.

Physiotherapists must be registered with a provincial regulatory body in order to practice in that province. Since 1988 there has been a yearly increase in the number of registered physiotherapists in Canada, resulting in an increase of 50.3% from 1988 to 1997. Individual provinces have also experienced significant growth in the number of registered physiotherapists, as shown in Table 15.1.



**Figure 28. Population Per Physiotherapist Registered with the Canadian Alliance of Physiotherapy Regulators, Canada, 1988–1997**

The population per registered physiotherapist is illustrated in Figure 28 and in Table 15.2. The rate of increase of physiotherapists has been greater than the population growth rate, resulting in lower population per physiotherapist figures across the country.

The number of active registered physiotherapists for the years 1988 to 1997 is shown in Table 15.3. At the national level the number of registered physiotherapists increased 44.7% over this ten-year period, while provincial increases range from 17.0% (Alberta) to 70.4% (Nova Scotia).

Table 15.4 shows the number of members of physiotherapy associations (either the Canadian Physiotherapy Association or the Ordre professionnel des physiothérapeutes du Québec), by province, for the years 1988 to 1997. Although the Canadian Physiotherapy Association is a professional organization for which membership is voluntary, there has been a 24.4% increase in the number of members between 1988 and 1997. All provinces and territories indicate individual increases in physiotherapist memberships.

The number of graduates of physiotherapy programs is shown in Table 15.5. The number of physiotherapy graduates has increased 43.9% between 1988 and 1997.



**Table 15.1 Number of Physiotherapists Registered with the Canadian Alliance of Physiotherapy Regulators by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	100	128	129	121	140	142	164	170	177	154
P.E.I.	30	27	30	32	31	33	35	44	49	42
N.S.	261	318	318	341	365	373	374	382	401	411
N.B.	206	178	201	240	273	330	319	321	344	368
Que.	1,791	2,056	2,234	2,427	2,378	2,679	2,797	2,943	3,003	3,077
Ont.	3,722	3,838	3,970	4,509	4,676	4,918	4,894	4,977	5,051	5,100
Man.	364	397	391	421	456	476	448	457	483	498
Sask.	310	310	330	337	350	350	385	407	414	457
Alta.	1,177	1,272	1,351	1,408	1,481	1,589	1,600	1,595	1,610	1,691
B.C.	1,585	1,658	1,726	1,958	1,969	2,007	2,398	2,451	2,368	2,558
Y.T.	..	..	..	..	..	16	..	..	..	..
N.W.T.	7	7	5	9	13	16	..	..	..	..
Canada	9,553	10,189	10,685	11,803	12,132	12,929	13,414	13,747	13,900	14,356

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 15.2 Population Per Registered Physiotherapist by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993 <sup>1</sup>	1994	1995	1996	1997
Nfld.	5,757	4,504	4,482	4,789	4,150	4,066	3,482	3,319	3,149	3,568
P.E.I.	4,333	4,826	4,349	4,081	4,248	4,029	3,840	3,080	2,786	3,253
N.S.	3,450	2,852	2,869	2,690	2,526	2,481	2,479	2,434	2,328	2,274
N.B.	3,556	4,142	3,698	3,112	2,742	2,274	2,356	2,344	2,190	2,049
Que.	3,845	3,386	3,148	2,919	3,004	2,684	2,583	2,467	2,429	2,380
Ont.	2,680	2,656	2,609	2,326	2,273	2,186	2,225	2,216	2,212	2,222
Man.	3,026	2,778	2,829	2,637	2,445	2,353	2,513	2,474	2,350	2,282
Sask.	3,295	3,261	3,037	2,971	2,867	2,879	2,628	2,497	2,466	2,239
Alta.	2,103	1,981	1,904	1,856	1,792	1,691	1,701	1,730	1,743	1,698
B.C.	1,993	1,960	1,934	1,749	1,791	1,808	1,559	1,565	1,658	1,561
Y.T.	..	..	..	..	..	1,875	..	..	..	..
N.W.T.	8,053	8,253	11,943	6,848	4,835	4,027	..	..	..	..
Canada	2,831	2,697	2,608	2,388	2,353	2,233	2,176	2,147	2,146	2,101

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Table 15.3 Number of Active Physiotherapists Registered with the Canadian Alliance of Physiotherapy Regulators, by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	100	100 <sup>1</sup>	129	118	138	136	159	167	164	151
P.E.I.	30	30 <sup>1</sup>	30	32	31	33	35	44	48	39
N.S.	240	296	296	333	340	333	340	352	373	409
N.B.	205	169	183	238	265	281 <sup>3</sup>	300	312	290	315
Que.	1,791	2,021	2,217	2,363	2,259	2,500	2,642 <sup>3</sup>	2,771 <sup>3</sup>	2,865 <sup>3</sup>	2,920
Ont.	3,288	3,486	3,670	3,908	4,241	4,447	4,571	4,685	4,727	4,743 <sup>1</sup>
Man. <sup>2</sup>	335	366	370	392	413	431	445	452	448	458
Sask.	310	315 <sup>1</sup>	325	337	350	350	385	407	408	457
Alta.	1,177	1,166	1,267	1,339	1,403	1,451	1,422	1,268	1,281	1,377
B.C.	1,585	1,608 <sup>1</sup>	1,394	1,760	1,911	2,026 <sup>3</sup>	2,103	2,093	2,093	2,238
Y.T.	..	..	..	..	..	16	..	..	..	..
N.W.T.	5	5 <sup>1</sup>	5	7	12	14	15 <sup>3</sup>	16 <sup>3</sup>	16 <sup>3</sup>	16 <sup>3</sup>
Canada	9,066	9,562	9,886	10,827	11,363	12,017	12,417	12,566	12,713	13,123

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Estimate.
- 2. Some physiotherapists may be practicing in two or more provinces. All physiotherapists working in Manitoba are residents of the province.
- 3. CIHI estimate.

**Table 15.4 Number of Graduates of B.Sc. Programs for Physiotherapy, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>N.S.</b>										
Dalhousie University	36	42	44	53	46	47	47	49	45	48
<b>Que.</b>	<b>164</b>	<b>167</b>	<b>179</b>	<b>173</b>	<b>179</b>	<b>173</b>	<b>191</b>	<b>195</b>	<b>191</b>	<b>172</b>
McGill University	67	60	68	69	70	76	78	71	77	49
Université de Montréal	54	50	57	43	49	45	54	59	56	56
Université Laval	43	57	54	61	60	52	59	65	58	67
<b>Ont.</b>	<b>122</b>	<b>120</b>	<b>123</b>	<b>125</b>	<b>228</b>	<b>187</b>	<b>216</b>	<b>262</b>	<b>279</b>	<b>259</b>
University of Ottawa	..	..	..	..	34	27	25	43	48	36
Queen's University	24	25	27	27	25	22	32	38	42	44
University of Toronto	65	63	63	67	68	76	69	71	68	65
McMaster University	..	..	..	..	66	30	29	51	61	56
University of Western Ontario	33	32	33	31	35	32	61	59	60	58
<b>Man.</b>										
University of Manitoba	28	25	24	27	31	28	31	29	32	31
<b>Sask.</b>										
University of Saskatchewan	23	21	31	29	30	29	32	29	28	29
<b>Alta.</b>										
University of Alberta	52	48	83 <sup>1</sup>	77	62	67	66	66	66	61
<b>B.C.</b>										
University of British Columbia	19	23	22	30	32	36	34	35	34	36
<b>Canada</b>	<b>444</b>	<b>446</b>	<b>506</b>	<b>514</b>	<b>608</b>	<b>567</b>	<b>617</b>	<b>665</b>	<b>675</b>	<b>636</b>

Source: HPIC/CIH

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. The increase is due to a raise in the enrolment quota.

#### Sources

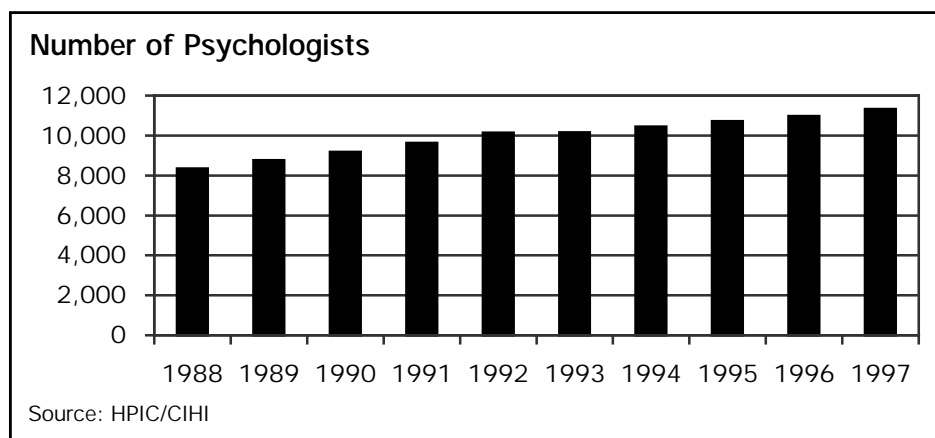
- Figure 27 Calculated from data in Table 15.1.
- Figure 28 Calculated from data in Table 15.2.
- Table 15.1 Canadian Alliance of Regulatory Boards.
- Table 15.2 Data calculated based on Table 15.1 and population estimates from Statistics Canada shown in Appendix A.
- Table 15.3 Canadian Alliance of Regulatory Boards.
- Table 15.4 Individual universities (McGill University, University of Ottawa, Queen's University, McMaster University, University of Western Ontario, University of Manitoba, University of Saskatchewan), and Statistics Canada.

## Psychologists

### *Description*

Psychologists diagnose psychological and emotional disorders and help their patients cope with their disorders. Duties can include: providing counselling and therapy for their clients; administering tests and questionnaires; performing research; consulting with other health care professionals; designing treatment programs; conducting experiments; and interviewing and counselling individuals, groups or families. Psychologists work in private practice or in institutions such as clinics, correctional facilities, hospitals, rehabilitation centres, schools and universities. Psychologists may specialize in areas such as clinical psychology or experimental psychology.

### **Analysis**



**Figure 29. Number of Active Registered Psychologists, Canada, 1988–1997**

Figure 29 illustrates the number of active registered psychologists in Canada from 1988 to 1997. Table 16.1 demonstrates that, with the exceptions of Newfoundland and Prince Edward Island, all provinces/territories experienced an increase in the number of active registered psychologists during this ten-year period.

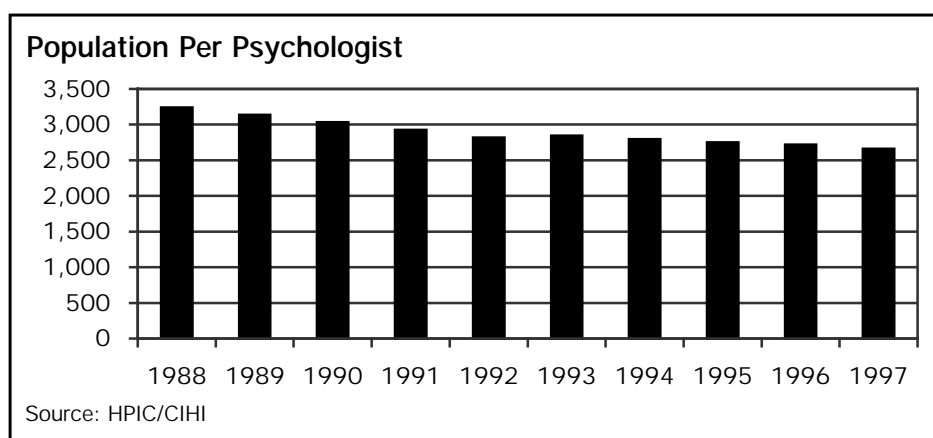


Figure 30. Population Per Active Registered Psychologist, Canada, 1988–1997

The population per active registered psychologist is shown in Figure 30 and in Table 16.2. In 1997, Québec and the Northwest Territories had the lowest figures in Canada.

Table 16.1 Number of Active Registered Psychologists<sup>1</sup> by Province/Territory of Residence, Canada, 1988–1997

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	40	41	34	23	26 <sup>2</sup>	27 <sup>3</sup>	28 <sup>3</sup>	29 <sup>3</sup>	30 <sup>3</sup>	31 <sup>3</sup>
P.E.I.	28	34	32	30	30	13	14	14	15	15
N.S.	176	160	185	172	165	142	216	218	217	229
N.B.	131	143	155	154	186	195 <sup>3</sup>	202 <sup>3</sup>	209 <sup>3</sup>	215 <sup>3</sup>	219 <sup>3</sup>
Que.	4,065	4,372	4,637	4,915	5,210	5,413	5,490 <sup>2</sup>	5,586 <sup>2</sup>	5,714	5,862
Ont.	1,663	1,720	1,779	1,920	2,060 <sup>2</sup>	2,023	2,092	2,176	2,190	2,281
Man.	107	103	107	110 <sup>2</sup>	130	136 <sup>3</sup>	141 <sup>3</sup>	146 <sup>3</sup>	150 <sup>3</sup>	153 <sup>3</sup>
Sask.	60	61	65	67	71	75 <sup>3</sup>	77 <sup>3</sup>	71 <sup>3</sup>	76 <sup>3</sup>	70 <sup>3</sup>
Alta.	1,381	1,403	1,443 <sup>2</sup>	1,489 <sup>4</sup>	1,486	1,224 <sup>2</sup>	1,261 <sup>2</sup>	1,296 <sup>2</sup>	1,345 <sup>2</sup>	1,412
B.C.	685	711	730	731	757	871	886	937	977	1,010
Y.T.	*	5	*	5	7	7 <sup>3</sup>	8 <sup>3</sup>	8 <sup>3</sup>	8 <sup>3</sup>	8 <sup>3</sup>
N.W.T.	*	8	*	11	7	25	30	34	37	38
Canada	8,346	8,761	9,182	9,627	10,135	10,152	10,446	10,724	10,974	11,328

Source: HPIC/CIHI

Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. "Active" refers to self-employed, or employed by agencies, e.g. hospitals or clinics. Excluded are students, foreign affiliates, retired, abroad and honorary members. Some psychologists are employed outside the health field.
- 2. Estimate.
- 3. CIHI estimate.
- 4. Includes 1,251 residents in Alberta.

**Table 16.2 Population Per Active Registered Psychologist by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	14,392	14,062	17,006	25,192	22,345	21,157	20,181	19,329	18,583	17,934
P.E.I.	4,643	3,833	4,078	4,353	4,389	10,228	9,599	9,681	9,102	9,108
N.S.	5,116	5,669	4,932	5,333	5,588	6,518	4,292	4,264	4,301	4,082
N.B.	5,592	5,156	4,795	4,849	4,024	3,843	3,713	3,602	3,510	3,440
Que.	1,694	1,592	1,517	1,441	1,371	1,328	1,316	1,300	1,276	1,249
Ont.	5,999	5,927	5,823	5,462	5,160	5,314	5,205	5,068	5,102	4,969
Man.	10,294	10,707	10,339	10,093	8,576	8,208	7,958	7,747	7,569	7,417
Sask.	17,024	16,570	15,421	14,943	14,134	13,521	13,096	14,314	13,431	14,617
Alta.	1,793	1,796	1,782	1,755	1,786	2,196	2,158	2,129	2,087	2,033
B.C.	4,611	4,569	4,573	4,684	4,657	4,166	4,218	4,092	4,018	3,954
Y.T.	*	5,500	*	5,869	4,313	4,082	3,977	4,006	3,979	3,890
N.W.T.	*	7,222	*	5,603	8,979	2,577	2,200	1,969	1,824	1,777
Canada	3,240	3,136	3,035	2,928	2,817	2,843	2,794	2,752	2,719	2,662

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero

**Sources**

Figure 29 Calculated from data in Table 16.1.

Figure 30 Calculated from data in Table 16.2.

Table 16.1 1988–1992: Government of Newfoundland and Labrador, Psychologists Association of Prince Edward Island, Nova Scotia Board of Examiners in Psychology, Collège des psychologues du Nouveau-Brunswick, Corporation professionnelle des psychologues du Québec, Ontario Board of Examiners in Psychology, Psychological Association of Manitoba, Saskatchewan Psychological Association, Psychologists Association of Alberta, British Columbia Psychological Association, Government of the Yukon Territory, Government of the Northwest Territories and Stanton Yellowknife Hospital;

1993–1998: University of Prince Edward Island, Nova Scotia Board of Examiners in Psychology, Ordre des psychologues du Québec, College of Psychologists of Ontario, Saskatchewan Psychological Association, College of Alberta Psychologists, College of Psychologists of British Columbia, Government of the Northwest Territories Health & Social Services.

Table 16.2 Data calculated based on Table 17.1 and population estimates from Statistics Canada shown in Appendix A.

## Registered Nurses

### Description

Registered nurses (RNs) provide direct nursing care to patients, deliver health education programs and provide consultative services regarding issues relevant to the practice of nursing. Their duties include: consulting with other members of the health care team to assess, plan, implement and evaluate patient care; administering medications and treatments as prescribed by a physician; monitoring, recording and reporting symptoms and changes in patients' conditions; operating or monitoring medical apparatus or equipment; assisting in surgery and other medical procedures; and supervising registered practical nurses, nursing assistants and other nursing staff. Nurses are employed in a variety of settings such as doctors' offices, hospitals, nursing homes, extended-care facilities, rehabilitation centres, clinics, private companies and government. They may also be self-employed. Many registered nurses specialize in areas such as surgery, obstetrics care, psychiatric care, critical care, paediatrics, geriatrics, community health, occupational health, emergency care, rehabilitation or oncology.

### Analysis

Table 17.1 presents the number of registered nurses in Canada by employment status and province of employment. From 1988 to 1997, the total number of registered nurses (RNs) in Canada increased 5.7%, from 249,673 to 263,933. Provincially, Ontario was the only province to experience a decrease in its total number of registered nurses in this ten-year period, with a 2.1% decrease.

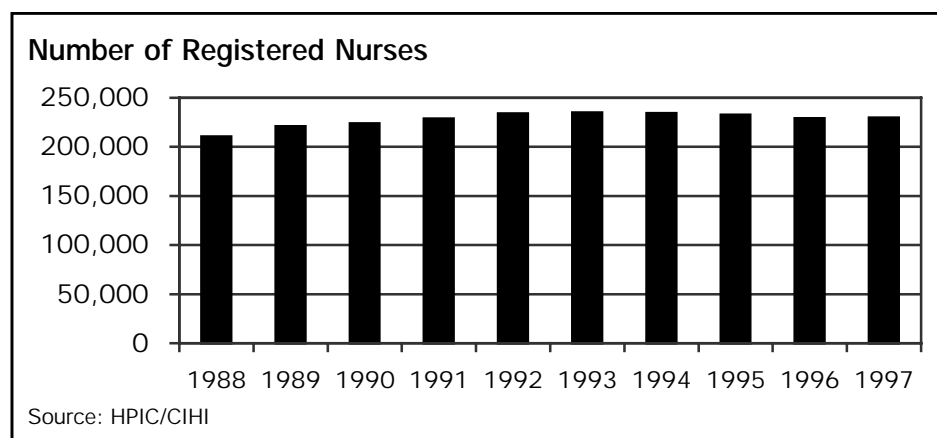
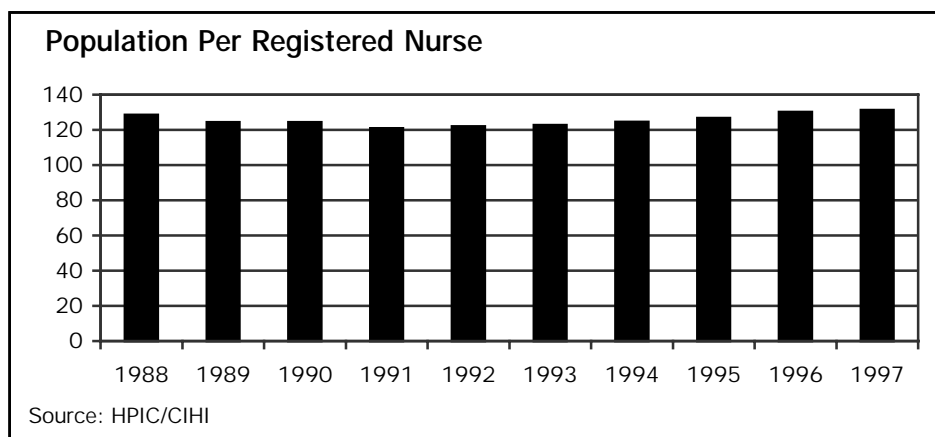


Figure 31. Number of Registered Nurses Employed in Nursing, Canada, 1988–1997

Figure 31 illustrates the number of registered nurses employed in nursing in Canada. From 1988 to 1997, the number of RNs employed in nursing in Canada rose 9.2%, to a 1997 total of 229,813. In addition, the number of RNs employed in nursing increased in every province, including Ontario. Whereas the total number of registered nurses declined in Ontario, the number of registered nurses employed in nursing increased.



**Figure 32. Population Per Registered Nurse Employed in Nursing, Canada, 1988–1997**

The population per registered nurse employed in nursing is illustrated in Figure 32 and in Table 17.2. Despite considerable provincial variation across the years, New Brunswick typically has the lowest figure in Canada. Due to an increasing number of RNs employed in nursing and a declining population, Newfoundland's population per registered nurse has declined from the second highest rate in Canada in 1988, to second lowest in 1997.

The employment status (full-time, part-time or not stated) of registered nurses employed in nursing is presented in Table 17.3. The most significant change from 1988 to 1997 is the 52.7% increase in the number of nurses working part-time in Canada. Between 1988 and 1997, Manitoba experienced a 40.9% decrease in the number of registered nurses employed full-time, and a 364.1% increase in the number of RNs employed part-time. Over the same ten-year period, the number of registered nurses employed full-time in Prince Edward Island decreased 79.8%, while the number of RNs employed part-time increased 108.3%.

The number of graduates from nursing diploma programs is shown in Table 17.4. As not all schools reported in any given year, the data is incomplete. In addition, many diploma programs have been discontinued across Canada since 1988, as baccalaureate programs are increasingly sought as minimum entry to nursing practice. The number of nursing baccalaureate graduates is presented in Table 17.5. With the exception of a significant decrease in 1993, the number of nursing graduates has increased each year.



**Table 17.1 Number of Registered Nurses by Activity Status and Province/Territory of Employment (for those employed in nursing), or by Province/Territory of Residence (for those not employed in nursing)<sup>1</sup>, Canada, 1988–1997<sup>2</sup>**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Nfld.</b>										
Employed in Nursing	4,304	4,592	4,814	4,953	5,064	5,147	5,178	5,203	5,261	5,210
Employed in other than Nursing	..	..	..	..	..	42	58	60	45	25
Not Employed	324	364	362	348	307	325	318	382	443	178
Not stated	5	3	3	-	1	..	..	2	13	..
Total	4,633	4,959	5,179	5,301	5,372	5,514	5,554	5,647	5,762	5,413
<b>P.E.I.</b>										
Employed in Nursing	1,064	1,126	1,193	1,221	1,246	1,247	1,163	1,195	1,340	1,281
Employed in other than Nursing	..	..	..	..	..	8	3	7	8	14
Not Employed	71	45	42	40	35	21	24	28	44	46
Not stated	-	-	-	4	8	..	1	3	6	17
Total	1,135	1,171	1,235	1,265	1,289	1,276	1,191	1,233	1,398	1,358
<b>N.S.</b>										
Employed in Nursing	8,366	8,615	8,869	9,019	9,128	9,129	9,157	8,863	8,738	8,587
Employed in other than Nursing	..	..	..	..	..	46	33	64	99	54
Not Employed	430	436	386	449	452	359	319	372	390	315
Not stated	1	5	15	20	5	10	33	25	29	..
Total	8,797	9,056	9,270	9,488	9,585	9,544	9,542	9,324	9,256	8,956
<b>N.B.</b>										
Employed in Nursing	6,398	6,559	6,837	7,136	7,349	7,521	7,610	7,545	7,458	7,412
Employed in other than Nursing	..	..	..	..	..	26	24	19	72	103
Not Employed	534	362	278	284	240	156	145	150	375	413
Not stated	978	669	660	747	606	608	645	691	60	65
Total	7,910	7,590	7,775	8,167	8,195	8,311	8,424	8,405	7,965	7,993
<b>Que.</b>										
Employed in Nursing	53,832	55,027	57,502	58,569 <sup>3</sup>	57,330	59,863	61,218	62,058 <sup>4</sup>	57,291 <sup>4</sup>	59,160
Employed in other than Nursing	..	..	..	..	..	382	430	513	..	..
Not Employed	1,227	1,283	..	..	1,538	904	790	705	..	15
Not stated	3,573	3,220	1,378	2,098 <sup>3</sup>	3,341	2,023	1,655	1,579	7,635	7,244
Total	58,632	59,530	58,880	60,667	62,209	63,172	64,093	64,855	64,926	66,419
<b>Ont.</b>										
Employed in Nursing	75,116	82,935	82,354	80,912	86,413	84,343	81,301	79,410	80,198	78,067
Employed in other than Nursing	..	..	..	..	..	8,676	7,193	5,111	5,517	5,201
Not Employed	10,743	13,104	13,995	12,484	13,870	5,940	7,813	7,555	8,250	5,362
Not stated	13,502	3,604	5,576	10,491	2,402	2,587	4,630	6,219	5,362	8,655
Total	99,361	99,643	101,925	103,887	102,685	101,546	100,937	98,295	99,327	97,285

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. The term "not employed in nursing" comprises nurses who are employed in other occupations, nurses who have left the workforce, and nurses who are unemployed. It excludes nurses whose employment status is not reported.
- 2. Inter-provincial duplicate registrations have been removed; the data refer to responses received from the registration form.
- 3. Estimate.
- 4. Québec 'Employed in Nursing' data imputed by Statistics Canada for 1995 and 1996.
- 5. Data for the Yukon and N.W.T. are combined from 1988 through 1992.

**Table 17.1 Number of Registered Nurses by Activity Status and Province/Territory of Employment (for those employed in Nursing) or by Province/Territory of Residence (for those not employed in nursing)<sup>1</sup>, Canada, 1988–1997<sup>2</sup> (cont'd)**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Man.</b>										
Employed in Nursing	8,996	9,489	9,756	10,128	10,251	10,258	10,083	10,216	10,490	10,510
Employed in other than Nursing	..	..	..	..	..	162	165	110	104	133
Not Employed	564	312	541	296	255	70	53	38	103	121
Not stated	90	69	102	314	344	425	33	22	260	265
Total	9,650	9,870	10,399	10,738	10,850	10,915	10,334	10,386	10,957	11,029
<b>Sask.</b>										
Employed in Nursing	8,231	8,182	8,326	8,394	8,698	8,390	8,491	8,447	8,508	8,456
Employed in other than Nursing	..	..	..	..	..	72	94	109	107	97
Not Employed	279	284	276	285	286	209	242	195	163	153
Not stated	13	47	78	104	134	155	220	93	177	104
Total	8,523	8,513	8,680	8,783	9,118	8,826	9,047	8,844	8,955	8,810
<b>Alta.</b>										
Employed in Nursing	20,171	19,694	19,144	22,197	21,461	21,835	21,860	21,287	20,751	21,428
Employed in other than Nursing	..	..	..	..	..	259	418	487	506	428
Not Employed	2,370	1,840	1,370	1,243	2,164	1,712	1,647	1,185	1,361	1,269
Not stated	59	1,550	3,074	655	312	342	343	635	738	534
Total	22,600	23,084	23,588	24,095	23,937	24,148	24,268	23,594	23,356	23,659
<b>B.C.</b>										
Employed in Nursing	23,728	24,365	24,694	25,826	26,696	27,384	27,575	27,868	28,348	28,974
Employed in other than Nursing	..	..	..	..	..	499	92	47	11	23
Not Employed	2,783	2,412	2,251	2,087	1,941	1,492	298	136	46	64
Not stated	1,588	1,555	1,777	1,460	1,276	1,166	2,781	2,953	3,741	3,150
Total	28,099	28,332	28,722	29,373	29,913	30,541	30,746	31,004	32,146	32,211
<b>Y.T.<sup>5</sup></b>										
Employed in Nursing	..	..	..	..	..	..	204	218	228	252
Employed in other than Nursing	..	..	..	..	..	..	2	1	1	5
Not Employed	..	..	..	..	..	..	2	4	8	12
Not stated	..	..	..	..	..	..	..	..	31	5
Total	..	..	..	..	..	..	208	223	268	274
<b>N.W.T.<sup>5</sup></b>										
Employed in Nursing	300	415	476	487	492	..	555	559	551	476
Employed in other than Nursing	..	..	..	..	..	8	11	13	9	14
Not Employed	24	25	16	29	31	25	17	16	25	18
Not stated	9	1	-	8	7	..	5	2	14	18
Total	333	441	492	524	530	33	588	590	599	526
<b>Canada</b>										
Employed in Nursing	210,506	220,999	223,965	228,842 <sup>3</sup>	234,128	235,117	234,395	232,869	229,162	229,813
Employed in other than Nursing	..	..	..	..	..	10,180	8,523	6,541	6,479	6,097
Not Employed	19,349	20,467	19,517	17,545	21,119	11,213	11,668	10,766	11,208	7,966
Not stated	19,818	10,723	12,663	15,901 <sup>3</sup>	8,436	7,316	10,346	12,224	18,066	20,057
Total	249,673	252,189	256,145	262,288	263,683	263,826	264,932	262,400	264,915	263,933

Source: HPIC/CIHI

#### Notes

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. The term "not employed in nursing" comprises nurses who are employed in other occupations, nurses who have left the workforce, and nurses who are unemployed. It excludes nurses whose employment status is not reported.
- 2. Inter-provincial duplicate registrations have been removed; the data refer to responses received from the registration form.
- 3. Estimate.
- 4. Québec 'Employed in Nursing' data imputed by Statistics Canada for 1995 and 1996.
- 5. Data for the Yukon and N.W.T. are combined from 1988 through 1992.

**Table 17.2 Population Per Registered Nurse Employed in Nursing by Province/Territory of Employment, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	134	126	120	119	115	112	110	108	106	105
P.E.I.	122	116	109	107	106	107	116	113	102	107
N.S.	108	105	103	102	101	101	101	105	107	109
N.B.	114	112	109	105	102	100	99	100	101	102
Que.	128	127	122	121	125	120	118	119	127	124
Ont.	133	123	126	130	123	127	134	139	139	145
Man.	122	118	113	110	109	109	112	111	108	108
Sask.	124	124	120	119	115	120	119	120	120	121
Alta.	123	128	134	118	124	123	124	130	135	134
B.C.	133	133	135	133	132	133	136	138	138	138
Y.T. <sup>1</sup>	..	..	..	..	..	..	149	144	141	127
N.W.T. <sup>1</sup>	188	139	125	127	128	..	119	120	122	142
Canada	128	124	124	121	122	123	125	127	130	131

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Yukon and N.W.T. are combined from 1988 through 1992.

**Table 17.3 Number of Registered Nurses Employed in Nursing, Full-time and Part-time, by Province/Territory of Employment, Canada, 1988–1997<sup>1</sup>**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Nfld.</b>										
Full-time	2,987	3,279	3,445	3,504	3,488	3,422	3,363	3,306	3,290	3,071
Part-time	675	731	818	1,448	1,576	1,725	1,815	1,897	1,971	2,139
Not stated	642	582	551	1	-	..	..	..	..	..
Total	4,304	4,592	4,814	4,953	5,064	5,147	5,178	5,203	5,261	5,210
<b>P.E.I.</b>										
Full-time	509	537	581	580	566	568	510	506	578	103
Part-time	555	589	612	629	664	668	448	454	479	1,156
Not stated	-	-	-	12	16	11	205	235	283	22
Total	1,064	1,126	1,193	1,221	1,246	1,247	1,163	1,195	1,340	1,281
<b>N.S.</b>										
Full-time	5,318	5,548	5,765	5,840	5,873	5,754	5,727	5,456	5,361	5,119
Part-time	3,048	3,067	3,104	3,179	3,255	3,375	3,430	3,407	3,377	3,468
Not stated	-	-	-	-	-	..	..	..	..	..
Total	8,366	8,615	8,869	9,019	9,128	9,129	9,157	8,863	8,738	8,587
<b>N.B.</b>										
Full-time	3,903	4,021	4,192	4,431	4,544	4,528	4,463	4,317	3,677	4,034
Part-time	1,429	1,538	1,739	1,805	1,794	1,853	1,832	1,907	2,449	3,378
Not stated	1,066	1,000	906	900	1,011	1,140	1,315	1,321	..	..
Total	6,398	6,559	6,837	7,136	7,349	7,521	7,610	7,545	6,126	7,412
<b>Que.</b>										
Full-time	24,484	25,119	..	..	31,572	32,441	32,679	26,024	22,485	28,986
Part-time	17,960	18,326	..	..	21,468	22,461	23,166	19,335	16,128	30,174
Not stated	11,388	11,582	57,502 <sup>2</sup>	60,667 <sup>2</sup>	4,290	4,961	5,373	16,699	18,678	..
Total	53,832	55,027	57,502	60,667	57,330	59,863	61,218	62,058	57,291	59,160
<b>Ont.</b>										
Full-time	48,219	45,049	47,290	46,585	57,994	47,754	45,360	44,729	43,976	41,612
Part-time	26,897	30,574	35,064	34,327	28,419	36,589	35,941	34,681	36,222	36,455
Not stated	..	7,312	..	..	..	..	..	..	..	..
Total	75,116 <sup>3</sup>	82,935	82,354	80,912	86,413	84,343	81,301	79,410	80,198	78,067

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Nurses employed in nursing include all who are involved in direct patient care as well as in administration, teaching, and research where professional training in nursing is required. Those working in other than nursing are excluded.
- 2. The breakdown between full-time and part-time nurses is not available in Québec. The Québec figures for 1990 and 1991 include some nurses not employed in nursing.
- 3. This figure represents an underestimate. It is affected by the fact that the number of nurse registrants in Ontario not reporting their employment status more than doubled in 1988.
- 4. The Yukon issued no licenses; therefore nurses working in the Yukon are registered in other jurisdictions.
- 5. Data for the Yukon and N.W.T. are combined.

**Table 17.3 Number of Registered Nurses Employed in Nursing, Full-time and Part-time, by Province/Territory of Employment, Canada, 1988–1997<sup>1</sup> (cont'd)**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>Man.</b>										
Full-time	7,534	5,382	5,156	5,232	5,099	4,992	4,685	4,636	4,568	4,451
Part-time	1,015	3,292	3,740	4,058	4,186	4,189	4,211	4,346	4,526	4,711
Not stated	447	815	860	838	966	1,077	1,187	1,234	1,396	1,348
Total	8,996	9,489	9,756	10,128	10,251	10,258	10,083	10,216	10,490	10,510
<b>Sask.</b>										
Full-time	3,344	2,981	4,066	4,296	3,604	4,034	2,709	3,965	4,014	3,902
Part-time	2,502	2,485	3,261	3,454	2,809	4,356	2,556	2,264	3,002	2,987
Not stated	2,385	2,716	999	644	2,285	..	3,226	2,218	1,492	1,567
Total	8,231	8,182	8,326	8,394	8,698	8,390	8,491	8,447	8,508	8,456
<b>Alta.</b>										
Full-time	10,912	10,733	11,086	11,997	15,073	14,851	14,129	11,786	11,256	11,672
Part-time	9,259	7,320	8,058	10,200	6,388	6,984	7,731	9,501	9,495	9,756
Not stated	..	1,641	..	..	..	..	..	..	..	..
Total	20,171	19,694	19,144	22,197	21,461	21,835	21,860	21,287	20,751	21,428
<b>B.C.</b>										
Full-time	13,420	13,910	13,394	13,762	14,907	14,856	14,582	14,265	14,172	14,339
Part-time	7,718	6,903	6,659	6,790	9,987	10,763	11,299	11,281	12,963	14,219
Not stated	2,590	3,552	4,641	5,274	1,802	1,765	1,694	2,322	1,213	416
Total	23,728	24,365	24,694	25,826	26,696	27,384	27,575	27,868	28,348	28,974
<b>Y.T.<sup>4</sup></b>										
Full-time	91	107	127				116	139	160	130
Part-time	25	22	24				61	79	68	122
Not stated	6	6	5				27	..	..	..
Total	122	135	156	<sup>5</sup>	<sup>5</sup>	<sup>5</sup>	204	218	228	252
<b>N.W.T.</b>										
Full-time	230	222	261	396	357	443	474	469	155	197
Part-time	37	46	54	68	79	70	81	90	53	49
Not stated	33	12	5	23	56	..	..	..	343	230
Total	300	280	320	487 <sup>5</sup>	492 <sup>5</sup>	513 <sup>5</sup>	555	559	551	476
<b>Canada</b>										
Full-time	120,951	116,888	95,363	96,623	143,077	133,643	128,797	119,598	113,692	117,616
Part-time	71,120	74,893	63,133	65,958	80,625	93,033	92,571	89,242	90,733	108,614
Not stated	18,557	29,218	65,469 <sup>2</sup>	68,359 <sup>2</sup>	10,426	8,954	13,027	24,029	23,405	3,583
Total	210,628	220,999	223,965	230,940	234,128	235,630	234,395	232,869	227,830	229,813

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Nurses employed in nursing include all who are involved in direct patient care as well as in administration, teaching, and research where professional training in nursing is required. Those working in other than nursing are excluded.
- 2. The breakdown between full-time and part-time nurses is not available in Québec. The Québec figures for 1990 and 1991 include some nurses not employed in nursing.
- 3. This figure represents an underestimate. It is affected by the fact that the number of nurse registrants in Ontario not reporting their employment status more than doubled in 1988.
- 4. The Yukon issued no licenses, therefore nurses working in the Yukon are registered in other jurisdictions.
- 5. Data for the Yukon and N.W.T. are combined.

**Table 17.4 Number of Graduates of Nursing Diploma Programs<sup>1</sup> by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	179	180	225	242	251	262	249	169	243	159
P.E.I.	49	48	38	45	40	32	- <sup>2</sup>	-	-	-
N.S.	236	271	322	272	262	276	243	142	- <sup>2</sup>	-
N.B.	235	250	198	262	231	242	254	256	242	223
Que.	1,970	2,078	2,077	1,747	1,640	1,720	1,548	1,523	1,747	1,718
Ont.	2,096	2,029	2,019	2,237	2,411	2,333	2,182	2,195	1,882	1,608
Man.	441	473	420	473	449	421	359	270	121	76
Sask.	306	302	274	303	304	292	261	198	89	67
Alta.	755	791	742	800	743	541	383	413	177	40
B.C.	714	695	690	551	730	588	585	530	465	356
Y.T. & N.W.T.	..	..	..	..	..	..	..	..	..	..
Canada	6,981	7,117	7,005	6,932	7,061	6,707	6,064	5,696	4,966	4,247

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Not all schools reporting.
- 2. Diploma school of nursing closed.

**Table 17.5 Number of Graduates of Baccalaureate Nursing Programs by Province/Territory, Canada, 1988–1997**

Provinces	1988	1989	1990	1991 <sup>1</sup>	1992	1993	1994	1995	1996	1997
Nfld.	57	64	91	48	56	44	27	31	41	45
P.E.I.	..	..	..	..	..	-	-	-	17	26
N.S.	140	128	136	134	100	76	81	70	91	67
N.B.	128	111	125	131	125	93	78	84	115	88
Que.	485	417	507	495	513	198	199	206	255	241
Ont.	699	804	842	744	864	551	552	579	610	675
Man.	118	127	158	123	141	67	74	82	99	111
Sask.	90	87	87	93	103	68	59	59	75	63
Alta.	342	338	359	342	342	160	160	287	370	580
B.C.	206	237	247	253	318	89	93	109	145	279
Y.T. & N.W.T.	..	..	..	..	..	..	..	..	..	..
Canada	2,265	2,313	2,552	2,363 <sup>1</sup>	2,562	1,346	1,323	1,507	1,818	2,175

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. One school not reporting.

## **Sources**

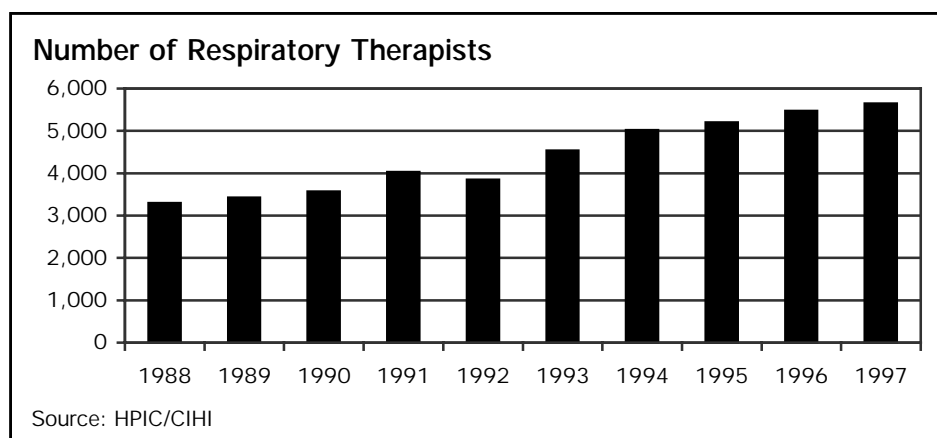
Figure 31	Calculated from data in Table 17.1.
Figure 32	Calculated from data in Table 17.2.
Table 17.1	Canadian Centre for Health Information, Statistics Canada.
Table 17.2	Data calculated based on Table 17.1 and population estimates from Statistics Canada shown in Appendix A.
Table 17.3	1988–1992: Canadian Nurses Association; 1993–1997 Canadian Institute for Health Information, Statistics Canada.
Table 17.4	1988–1992: Canadian Nurses Association; 1993–1997 Canadian Institute for Health Information, Statistics Canada.
Table 17.5	1988–1992: Canadian Nurses Association; 1993–1997 Canadian Institute for Health Information, Statistics Canada.

## Respiratory Therapists

### *Description*

Respiratory therapists (RTs) assist in the diagnosis, treatment and care of patients with respiratory and cardiopulmonary disorders. Duties of respiratory therapists include: operating equipment which temporarily replaces a patient's lungs; performing diagnostic tests, such as arterial blood gas analysis and cardiopulmonary functions tests; performing artificial respiration and external cardiac massage; maintaining and testing diagnostic and therapeutic equipment; supervising and training student respiratory therapists; and participating in research related to cardiac and pulmonary disorders. Respiratory therapists are usually employed in hospitals, medical clinics, and respiratory home care companies.

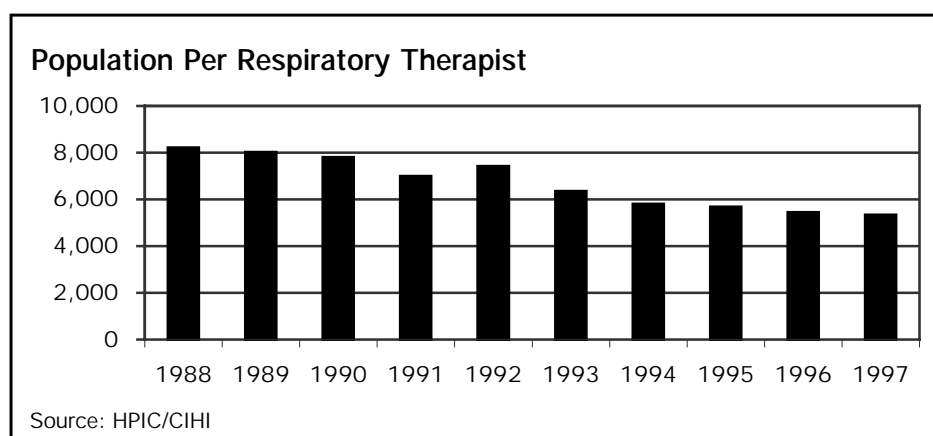
### **Analysis**



**Figure 33. Number of Registered Respiratory Therapists, Canada, 1988–1997**

The number of registered respiratory therapists (RTs) in Canada from 1988 to 1997 is illustrated in Figure 33. Over this ten-year period, the number of RTs increased 71.4%, to a 1997 total of 5,644. As shown in Table 18.1 each province has experienced at least a 30 percent increase in the number of registered RTs from 1988 to 1997, while the number has remained stable for the Yukon/Northwest Territories.





**Figure 34. Population Per Registered Respiratory Therapist, Canada, 1988-1997**

The population per registered respiratory therapist is illustrated in Figure 34 and in Table 18.2. The increase in respiratory therapists has resulted in a lower population per therapist ratio across Canada, although the Yukon and Northwest Territories are again the exception: population increases combined with a stable number of registered therapists have led to an increase in the population per RT figure.

The number of graduates from respiratory therapy programs is shown in Table 18.3, with not all schools represented. However, for the schools reporting, there has been a 40.4% increase in the number of graduates between 1988 and 1997.

**Table 18.1 Number of Registered Respiratory Therapists by Province/Territory of Residence, Canada, 1988-1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	181 <sup>1</sup>	198 <sup>1</sup>	213 <sup>1</sup>	285 <sup>1</sup>	266 <sup>1</sup>	50	48	63	71	65
P.E.I.						7	6	6	11	14
N.S.						149	161	166	172	186
N.B.						117	146	159	169	170
Que. <sup>2</sup>	1,465	1,602	1,731	1,768	1,800	1,800	1,900	2,000	2,100	2,200
Ont.	925	913	911	1,166	1,082	1,252	1,492	1,617	1,658	1,727
Man.	156	154	142	191	182	194	202	201	209	203
Sask.	49	47	47	64	66	79	93	92	94	94
Alta.	334	322 <sup>3</sup>	310 <sup>3</sup>	297	234	600	600	620	681	680
B.C.	181	186	213	253	218	288	371	271	303	304
Y.T. & N.W.T.	*	..	*	*	..	*	*	*	*	*
Canada	3,292	3,422	3,568	4,025	3,848	4,537	5,020	5,196	5,469	5,644

Source: HPIC/CIHI

**Notes**

- .. Information not available
- \* Amount too small to be expressed
- Nil or zero
- 1. Combined total for the four Atlantic provinces (Newfoundland, P.E.I., Nova Scotia, and New Brunswick).
- 2. Non-practicing respiratory therapists are not included in the figures for Québec.
- 3. Estimate.

**Table 18.2 Population Per Registered Respiratory Therapist, by Province/Territory of Residence, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	12,920 <sup>1</sup>	11,875 <sup>1</sup>	11,100 <sup>1</sup>	8,330 <sup>1</sup>	8,959 <sup>1</sup>	11,548	11,896	8,957	7,852	8,453
P.E.I.						18,995	22,398	22,589	12,412	9,759
N.S.						6,212	5,758	5,600	5,427	5,026
N.B.						6,412	5,148	4,732	4,457	4,434
Que.	4,701	4,346	4,063	4,006	3,969	3,995	3,803	3,630	3,473	3,329
Ont.	10,785	11,166	11,371	8,993	9,825	8,587	7,299	6,821	6,739	6,563
Man.	7,061	7,161	7,791	5,813	6,126	5,774	5,573	5,626	5,432	5,597
Sask.	20,845	21,506	21,327	15,643	15,205	12,756	10,881	11,047	10,859	10,885
Alta.	7,412	7,826	8,296	8,798	11,341	4,479	4,535	4,451	4,121	4,222
B.C.	17,452	17,467	15,674	13,534	16,172	12,600	10,074	14,150	12,954	13,136
Y.T. & N.W.T.	*	..	*	*	..	*	*	*	*	*
Canada	8,214	8,029	7,809	7,002	7,419	6,362	5,815	5,679	5,455	5,343

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. Based on the combined total for the four Atlantic provinces (Newfoundland, P.E.I., Nova Scotia, and New Brunswick).

**Table 18.3 Number of Graduates of Accredited Schools of Respiratory Therapy<sup>1</sup>, by Year and School of Graduation, Canada, 1988–1997**

School	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.										
College of the North Atlantic	..	..	..	..	..	10	9	8	12	8
Que.										
Collège de Chicoutimi	25	24	22	20	21 <sup>2</sup>	15	17	25	21	22
Collège de Rosemont	31	34	37	35	43	33	41	45	45	47
Collège Vanier	14	15	14	11 <sup>2</sup>	17	15 <sup>3</sup>	15 <sup>3</sup>	15 <sup>3</sup>	15 <sup>3</sup>	15 <sup>3</sup>
Ont.										
Canadore College	..	..	..	..	..	..	11	16	13	14
Fanshawe College	33	29	33	30	36	46	45	45	42	52
The Michener Institute	..	..	..	..	..	28	51	- <sup>4</sup>	51	39
Man.										
Health Sciences Centre	14	15	16	14	13	20	9	15	12	7
Alta.										
Northern Alberta Institute of Technology	35	37	33	40	38 <sup>2</sup>	..	28	35	22	19
Southern Alberta Institute of Technology	21	12	19	20	26	25	26	17	17	16
B.C.										
University College of the Cariboo	20	18	29	37	32	40	32	34	46	32
Canada	193	184	203	207	226	232	284	255	296	271

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. Not all schools are represented.

2. Estimate.

3. Figures represent an annual average.

4. No graduating class due to a change in program length.

**Sources**

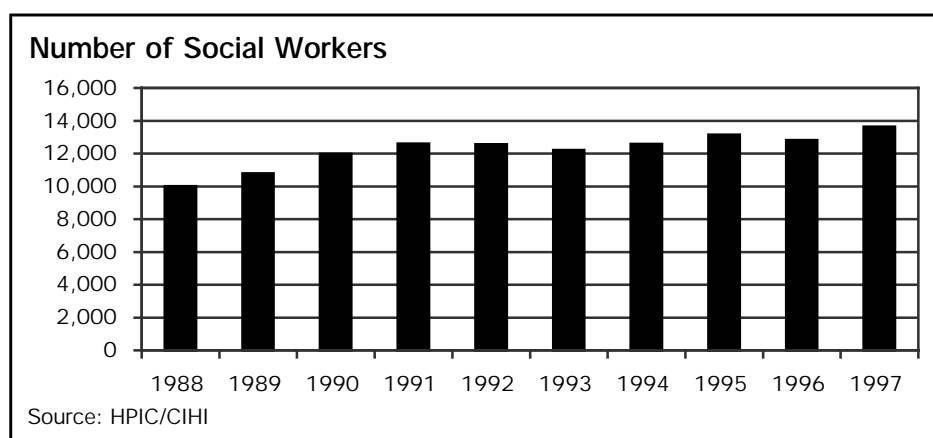
Figure 33	Calculated from data in Table 18.1.
Figure 34	Calculated from data in Table 18.2.
Table 18.1	1988–1992: Canadian Society of Respiratory Therapists, la Corporation des inhalothérapeutes du Québec; 1993–1997: Canadian Society of Respiratory Therapists.
Table 18.2	Data calculated based on Table 18.1 and population estimates from Statistics Canada shown in Appendix A.
Table 18.3	Individual universities, colleges and institutes

## Social Workers

### Description

Social Workers treat social functioning difficulties, provide counselling, therapy and referral to other supportive social services. Some Social Workers evaluate child development and the adequacy of childcare. The duties of Social Workers include: interviewing clients individually, in families, or in groups, to assess their situation and problems and determine the types of services required; providing counsel and therapy to assist clients in developing skills to deal with and resolve their social and personal problems; planning programs of assistance for clients including referral to agencies that provide financial assistance, legal aid, housing, medical treatment and other services; investigating cases of child abuse or neglect and taking authorized protective action when necessary; serving as members on interdisciplinary teams of professionals working with specific client groups; acting as advocates for client groups in the community; lobbying for solutions to problems directly affecting client groups; developing or advising on social policy, conduct social research; and assisting in community development. Social Workers are usually employed in hospitals, school boards, social service agencies, welfare organizations or correctional facilities.

### Analysis



**Figure 35. Number of Members of Provincial/Territorial Associations of Social Work, Canada, 1988–1997**

Figure 35 illustrates the number of members of provincial/territorial social work associations in Canada for the years 1988 to 1997. By the end of the year 2000, use of the terms “social worker” and “registered social worker” will be controlled by provincial legislation in all ten provinces, meaning that individuals wishing to practice as ‘social workers’ must be licensed with provincial regulatory bodies.

As shown in Table 19.1, although Ontario and British Columbia both show decreases of approximately 25% between 1988 and 1997 figures, most other provinces experienced significant increases during that same period, including New Brunswick (401.2%), Nova Scotia (217.7%), Manitoba (102.4%), and Québec (89.6%). In part, the increases can be

attributed to legislative changes that required social workers to be registered in those provinces.

The population per social worker is shown in Table 19.2. Due to the large increases in the number of members of provincial social work associations, the population per social worker has decreased in all provinces/territories except Ontario and British Columbia.

**Table 19.1 Number of Members of Provincial/Territorial Associations of Social Workers by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	173	200	234	232	232	244 <sup>1</sup>	251 <sup>1</sup>	252 <sup>1</sup>	254 <sup>1</sup>	255 <sup>1</sup>
P.E.I. <sup>2</sup>	60	60 <sup>3</sup>	61	63	62	65 <sup>1</sup>	67 <sup>1</sup>	67 <sup>1</sup>	68 <sup>1</sup>	68 <sup>1</sup>
N.S.	368	427	500	488	562	596	650	943	1,117	1,169
N.B.	241	491	921	983	1,087	1,125 <sup>3</sup>	1,146	1,168	1,082	1,208
Que.	2,254	2,471	2,825	3,200	3,215	3,344	3,686	3,889	4,053	4,273
Ont.	4,013	4,012	4,015	3,997	3,677	3,107	2,977	3,048	2,977	3,042
Man.	249	282	295	406	408	388	409	412	398	504
Sask. <sup>4</sup>	216	256	294	350	413	435 <sup>1</sup>	446 <sup>1</sup>	449 <sup>1</sup>	452 <sup>1</sup>	453 <sup>1</sup>
Alta.	1,092	1,247	1,417	1,443	1,469	1,548 <sup>1</sup>	1,587 <sup>1</sup>	1,598 <sup>1</sup>	1,609 <sup>1</sup>	1,612 <sup>1</sup>
B.C.	1,242	1,244	1,307	1,327	1,336	1,242	1,238	1,202	689	926
Y.T.	43	42 <sup>3</sup>	51	50	50 <sup>3</sup>	53 <sup>1</sup>	54 <sup>1</sup>	54 <sup>1</sup>	55 <sup>1</sup>	55 <sup>1</sup>
N.W.T.	51	63 <sup>3</sup>	60 <sup>3</sup>	61 <sup>3</sup>	60 <sup>3</sup>	63 <sup>1</sup>	65 <sup>1</sup>	65 <sup>1</sup>	66 <sup>1</sup>	66 <sup>1</sup>
Canada	10,002	10,795	11,980	12,600	12,571	12,211	12,576	13,149	12,820	13,630

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. CIHI estimate.

2. Not all social workers in Prince Edward Island are members of the Association, as membership is voluntary.

3. Estimate.

4. Data include full time, part time, not employed and retired members.

**Table 19.2 Population Per Social Worker<sup>1</sup> by Province/Territory of Registration, Canada, 1988–1997**

Provinces	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Nfld.	3,328	2,883	2,471	2,497	2,504	2,362	2,278	2,236	2,193	2,158
P.E.I.	2,167	2,172	2,139	2,073	2,124	2,035	2,006	2,009	2,010	2,008
N.S.	2,447	2,124	1,825	1,880	1,641	1,553	1,426	986	836	800
N.B.	3,040	1,502	807	760	689	667	656	644	696	624
Que.	3,055	2,817	2,490	2,214	2,222	2,150	1,960	1,867	1,800	1,714
Ont.	2,486	2,541	2,580	2,624	2,891	3,460	3,658	3,618	3,753	3,726
Man.	4,424	3,911	3,750	2,735	2,733	2,887	2,753	2,745	2,852	2,254
Sask.	4,729	3,948	3,409	2,860	2,430	2,315	2,268	2,262	2,256	2,258
Alta.	2,267	2,021	1,815	1,811	1,807	1,736	1,714	1,727	1,744	1,781
B.C.	2,543	2,612	2,554	2,580	2,639	2,922	3,019	3,190	5,697	4,313
Y.T.	624	655	552	587	604	569	561	579	587	585
N.W.T.	1,105	917	995	1,010	1,048	1,019	1,018	1,026	1,027	1,026
Canada	2,704	2,545	2,326	2,237	2,271	2,364	2,321	2,244	2,327	2,212

Source: HPIC/CIHI

**Notes**

.. Information not available

\* Amount too small to be expressed

- Nil or zero

1. "Social worker" is considered to be those members of provincial/territorial social work associations.

**Sources**

Figure 35 Calculated from data in Table 19.1.

Table 19.1 1988–1992: provincial/territorial organizations;  
1993–1997: Canadian Association of Social Workers from provincial organizations (Nova Scotia Association of Social Workers, New Brunswick Association of Social Workers, Ordre professionnel des travailleurs sociaux du Québec, Ontario Association of Social Workers, Manitoba Association of Social Workers, British Columbia Association of Social Workers).

Table 19.2 Data calculated based on Table 19.1 and population estimates from Statistics Canada shown in Appendix A.

# **Appendix A**

**Statistics Canada Population Estimates for  
Canada, the Provinces, and the Territories**

## Statistics Canada Population Estimates for Canada, the Provinces and Territories, 1988 to 1997 ('000s)

Province	1988 (IR)	1989 (IR)	1990 (IR)	1991 (ID)	1992 (ID)	1993 (ID)	1994 (ID)	1995 (ID)	1996 (PR)	1997 (PR)
Nfld.	575.7	576.5	578.2	579.4	581.0	577.4	571.0	564.3	557.5	549.4
P.E.I.	130.0	130.3	130.5	130.6	131.7	133.0	134.4	135.5	136.5	136.6
N.S.	900.4	907.0	912.3	917.3	922.0	925.5	927.1	929.6	933.4	934.8
N.B.	732.5	737.4	743.2	746.8	748.5	750.3	751.6	752.3	753.3	753.9
Que.	6,886.4	6,961.7	7,033.4	7,083.3	7,143.7	7,190.3	7,224.9	7,259.0	7,293.7	7,323.0
Ont.	9,976.5	10,194.5	10,359.2	10,486.2	10,630.6	10,750.8	10,889.5	11,029.0	11,173.1	11,334.2
Man.	1,101.5	1,102.8	1,106.3	1,110.3	1,114.9	1,120.1	1,125.8	1,130.8	1,135.3	1,136.2
Sask.	1,021.4	1,010.8	1,002.3	1,001.2	1,003.5	1,007.7	1,011.9	1,016.3	1,020.8	1,023.2
Alta.	2,475.5	2,520.1	2,571.8	2,613.1	2,653.9	2,687.4	2,721.0	2,759.5	2,806.4	2,871.0
B.C.	3,158.8	3,248.9	3,338.5	3,424.1	3,525.5	3,628.9	3,737.6	3,834.7	3,925.2	3,993.5
Y.T.	26.8	27.5	28.2	29.3	30.2	30.0	30.3	31.5	32.1	32.1
N.W.T.	56.4	57.8	59.7	61.6	62.9	64.4	66.0	67.0	67.5	67.5
Canada	27,041.9	27,475.2	27,863.6	28,183.3	28,548.3	28,865.8	29,191.1	29,509.4	29,834.6	30,155.3

Source: Statistics Canada

### Notes

All population figures are as of December 31 of the given year. In Statistics Canada publications it would equate to the figure for January 1 of the next year.

(ID) Final Post Censal Estimates

(IR) Final Intercensal Estimates

(PR) Updated Postcensal Estimates

### Source

Statistics Canada, Demography Division, April 1999

Adapted from Statistics Canada publications: Quarterly Demographic Estimates, Catalogue No. 91-001, Volume 8, Number 3;

Quarterly Demographic Estimates, Catalogue No. 91-001, Volume 12, Number 4.

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## **Appendix B**

### **1991 Standard Occupational Classification (SOC) Codes Included in Labour Force Survey Data**

## 1991 Standard Occupational Classification (SOC) Codes Included in Labour Force Survey Data

### Variable: 'LFS – selected health occupations'

GROUP	1991 SOC Code(s)
Chiropractors	D022
Dental Hygienists	D222
Dentists	D013
Dietitians	D032
Health Record Administrators/Technicians	A114 + B513
Health Service Executives	--- <sup>1</sup>
Licensed Practical Nurses	D233
Medical Laboratory Technologists	D211
Medical Radiation Technologists	D215
Occupational Therapists	D043
Optometrists	D021
Pharmacists	D031
Physicians	D011 + D012
Physiotherapists	D042
Psychologists	E021
Registered Nurses	D111 + D112
Respiratory Therapists	D214
Social Workers	E022

#### Notes

1. Health Service Executives are included in SOC code A014 - *Senior Managers - Health, Education, Social and Community Services and Membership Organizations*. Including this code would over-represent the number of Health Service Executives included in this publication.

### Variable: 'LFS – all health occupations'

GROUP	1991 SOC Code
Health Occupations	D (all) <sup>1</sup>
Health Record Administrators	A114
Health Record Technicians	B513
Psychologists	E021
Social Workers	E022

#### Notes

1. Category D of the 1991 Standard Occupational Classification codes is comprised of: (D0) Professional Occupations in Health; (D1) Nurse Supervisors and Registered Nurses; (D2) Technical and Related Occupations in Health; and (D3) Assisting Occupations in Support of Health Services. For further description, please see the Statistics Canada website at <http://www.statcan.ca/english/Subjects/Standard/soc/categoryd.htm>.

## **Appendix C**

**1991 Standard Occupational Classification (SOC)  
Codes – Category 'D'**

## **1991 Standard Occupational Classification Codes – Category ‘D’**

### **D0 - PROFESSIONAL OCCUPATIONS IN HEALTH**

#### **D01 - PHYSICIANS, DENTISTS AND VETERINARIANS**

- D011 - Specialist Physicians
- D012 - General Practitioners and Family Physicians
- D013 - Dentists
- D014 - Veterinarians

#### **D02 - OPTOMETRISTS, CHIROPRACTORS AND OTHER HEALTH DIAGNOSING AND TREATING PROFESSIONALS**

- D021 - Optometrists
- D022 - Chiropractors
- D023 - Other Professional Occupations in Health Diagnosing and Treating

#### **D03 - PHARMACISTS, DIETITIANS AND NUTRITIONISTS**

- D031 - Pharmacists
- D032 - Dietitians and Nutritionists

#### **D04 - THERAPY AND ASSESSMENT PROFESSIONALS**

- D041 - Audiologists and Speech-Language Pathologists
- D042 - Physiotherapists
- D043 - Occupational Therapists
- D044 - Other Professional Occupations in Therapy and Assessment

### **D1 - NURSE SUPERVISORS AND REGISTERED NURSES**

#### **D11 - NURSE SUPERVISORS AND REGISTERED NURSES**

- D111 - Head Nurses and Supervisors
- D112 - Registered Nurses

### **D2 - TECHNICAL AND RELATED OCCUPATIONS IN HEALTH**

#### **D21 - MEDICAL TECHNOLOGISTS AND TECHNICIANS (EXCEPT DENTAL HEALTH)**

- D211 - Medical Laboratory Technologists and Pathologists' Assistants
- D212 - Medical Laboratory Technicians
- D213 - Animal Health Technologists
- D214 - Respiratory Therapists and Clinical Perfusionists
- D215 - Medical Radiation Technologists
- D216 - Medical Sonographers
- D217 - Cardiology Technologists
- D218 - Electroencephalographic and Other Diagnostic Technologists, n.e.c.
- D219 - Other Medical Technologists and Technicians (except Dental Health)

**D22 - TECHNICAL OCCUPATIONS IN DENTAL HEALTH CARE**

- D221 - Denturists
- D222 - Dental Hygienists and Dental Therapists
- D223 - Dental Technicians and Laboratory Bench Workers

**D23 - OTHER TECHNICAL OCCUPATIONS IN HEALTH CARE (EXCEPT DENTAL)**

- D231 - Opticians
- D232 - Midwives and Practitioners of Natural Healing
- D233 - Registered Nursing Assistants
- D234 - Ambulance Attendants and Other Paramedical Occupations
- D235 - Other Technical Occupations in Therapy and Assessment

**D3 - ASSISTING OCCUPATIONS IN SUPPORT OF HEALTH SERVICES****D31 - ASSISTING OCCUPATIONS IN SUPPORT OF HEALTH SERVICES**

- D311 - Dental Assistants
- D312 - Nurse Aides and Orderlies
- D313 - Other Aides and Assistants in Support of Health Services