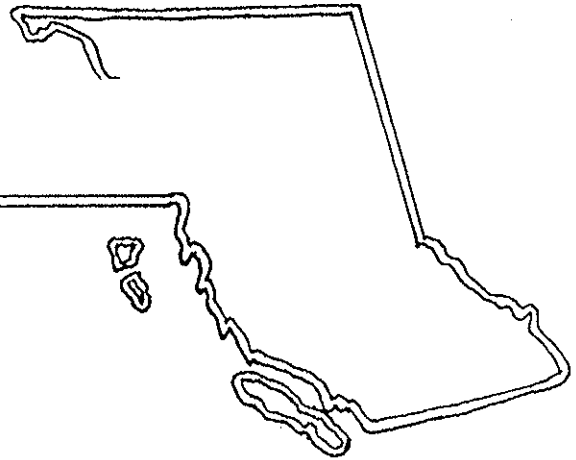


ROLLCALL 97



A STATUS REPORT OF SELECTED HEALTH PERSONNEL IN THE PROVINCE OF BRITISH COLUMBIA

HHRU 98:1

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HEALTH HUMAN RESOURCES UNIT

The Health Human Resources Unit (HHRU) of the Centre for Health Services and Policy Research was established as a demonstration project by the British Columbia Ministry of Health in 1973. Since that time, the Unit has been carried on an ongoing basis within the Ministry's annual operating budget. The Unit undertakes a series of research studies that are relevant to health human resources management and to public policy decisions.

The HHRU's research agenda is determined through extensive discussion of key current issues and available resources with the Ministry of Health. Various health care provider groups participate indirectly, through ongoing formal and informal communication with Ministry of Health officials and with HHRU researchers.

Three types of research activity are variously included on the Unit's research agenda and draw on different skills and research expertise of its faculty and staff. In conjunction with the professional licensing bodies or associations, the HHRU develops and maintains a co-operative health human resources database. The Unit uses these data to produce regular status reports that provide a basis for future in-depth studies and for health human resources planning. The Unit conducts in-depth studies that have a particular policy relevance or assess the impact of specific policy measures, based on secondary analyses of data from the co-operative database or primary data collected through large scale surveys. The HHRU also conducts specific projects pertaining to the management of health human resources at local, regional and provincial levels.

Copies of studies and reports produced by the HHRU are available at no charge.
(See final pages of this document for a listing of HHRU studies and reports.)

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Special appreciation is extended to the regulatory bodies and membership groups, all of whom took the time to answer our written and oral requests for information.

ROLLCALL 97 represents the culmination of six intensive months of data collection, consistency checks, table generation, definition and other text verification, proof-reading and analysis. The programming team working on this edition was headed by Kerry Kerluke and included Harold Yip, Brian McCashin, and Patrick Wong Fung. Allyson MacDonald, Laura Wood, and Doug Jameson handled the data collection, editing and updating. Laura Wood, Kerry Kerluke, and Allyson MacDonald co-ordinated the report production. Tables were produced on an IBMTM compatible PC using, Microsoft ExcelTM v7.0 and software written in FoxPROTM v2.5. Text was produced using Microsoft WordTM for Windows v7.0.

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July 27, 1998

Dr. Alan Thomson
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Dear Dr. Thomson:

It is with pleasure that I transmit to you the thirteenth edition of our *ROLLCALL* series, *ROLLCALL 97*.

Each new edition of *ROLLCALL* may differ somewhat from those of previous years as a result of the redesigned and improved databases of the professional associations and regulatory bodies that provide data for publication. We are indebted to the staff and officials of the professional groups who contributed to the completion of this report. Wherever possible, inter-temporal consistency is emphasised.

The Health Human Resources Unit (HHRU) did not survey any health personnel groups in 1997. For two groups which were previously surveyed, clinical engineers and biomedical engineering technologists and technicians, and social workers in health care, data are not available and, therefore, have been excluded from *ROLLCALL 97*. The section on Medical and Treatment Services has however been expanded this year to include opticians for the first time.

Data for the province as a whole suggest that the number of personnel relative to population decreased slightly between 1995 and 1997. Of the groups for which comparative data are available, slightly more than half recorded a positive rate of change relative to the population and slightly less than half recorded a negative rate of change relative to the population during this time period. As in *ROLLCALL 93* and *ROLLCALL 95*, the nursing groups all recorded a negative rate of change relative to the population between 1995 and 1997. The rate of growth in the number of Directory Active Physicians was again, as in *ROLLCALL 95*, slower than that of the provincial population.

We look forward to your comments and suggestions.

Sincerely

A handwritten signature in black ink, appearing to read 'A. Kazanjian'.

Arminée Kazanjian, Dr. Soc.
Associate Director
Centre for Health Services and Policy Research

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INTRODUCTION

ROLLCALL 97 is the thirteenth report in this series produced by the Health Human Resources Unit (HHRU) at the University of British Columbia. It describes the distribution of selected health personnel in British Columbia by Health Region. We are pleased to announce that this report will soon be available on the Centre for Health Services and Policy Research web site (www.chspr.ubc.ca) under "Publications" - "Chronological listing of reports" - "Health Human Resources Unit".

The HHRU was initially funded as a demonstration project by the Ministry of Health in September 1973. It was charged with the development of the provincial health human resources database and the creation of models to analyse the forces influencing human resources levels and the effect of certain policy options upon the type and distribution of stock. The Unit has produced a number of reports, directories, and in-depth analyses of human resources data for professional bodies, the Provincial Health Human Resources Working Group and the Federal/ Provincial Advisory Committee on Health Human Resources. Since 1973, a large and varied amount of data have been collected by the Unit to provide research support to planning and policy decisions. The human resources components of this database require varying degrees of development and maintenance to ensure its quality and currency.

Interest in health human resources planning has waxed and waned over the past few years, with varying degrees of concern about the effective use of public funds allocated to health services. This report provides some of the health human resources data that are integral to undertaking rational planning and implementing routine procedures of public accountability. Information about the province's health personnel is published in *ROLLCALL* with the expectation that it will be used for health human resources planning by the Regional Health Boards, Community Health Services Societies, Community Health Councils, professional associations and licensing/regulatory bodies in the province, and by the government.

The main purpose of *ROLLCALL* is to enumerate and describe each of the health human resources groups in British Columbia for which reliable data are available. There may be small or large health personnel groups for which we were unable to secure data because a formal licensing body or professional association with a broad membership base does not exist or, more generally, because an accurate source of required information is not available. The use of voluntary membership data to estimate the total population of various health professions is still necessary in several instances where membership is not mandatory. While comparative data are provided only for those groups where there have been no major changes in membership classification since 1995, inter-temporal inferences should be made with caution.

ROLLCALL 97 provides a snapshot picture of the distribution of health human resources in British Columbia as compared to 1995. There have been some changes to *ROLLCALL* this year which are detailed below. Since 1995, there have been minor changes to the boundaries of the Health Regions (HR's) used in *ROLLCALL* (see Appendix A for details). These changes are the result of revisions made by the B.C. Ministry of Health to the Local Health Area (LHA) boundaries on which the Health Regions are based¹. Only a small number of communities have been affected by the revisions to the

¹ Beginning in 1995, a process of regionalization began in B.C. Between that time and December 1997, new health authority regions have been created. These include the current eleven Regional Health Boards (RHB's), the thirty-four Community Health Councils (CHC's), and the seven Community Health Services Societies (CHSS's). The geographic boundaries of the various new health authority regions could no longer easily be translated to the existing Local Health Area (LHA) and Health Region (HR) boundaries, so the LHA's and HR's were revised in the spring of 1997.

LHA's and the HR's. A list of those communities which now appear in a Health Region different than that in which they appeared in 1995 is provided in Appendix A. All tables showing inter-temporal comparisons of personnel for 1995 and 1997 have been computed using the most recent HR boundaries.

This edition of *ROLLCALL* uses population 'estimates' rather than population 'projections' from the P.E.O.P.L.E. projection models which have been used in recent years in *ROLLCALL*. The population 'estimates' used this year (see Appendix B) are the most recent population data available from the Population Section, B.C. Stats (April 1998 estimates) and reflect the recent revisions to the LHA and HR boundaries, 1996 Census data, and *preliminary* estimates of net census under-counts. All tables showing inter-temporal comparisons of personnel per 10,000 population distributions for 1995, 1996 and 1997 have been computed using the April 1998 estimates. Therefore, the 1995 and 1996 personnel to population ratios that appear in *ROLLCALL 97* may differ significantly from those reported in *ROLLCALL 95* and *ROLLCALL UPDATE 96* because they have been recalculated based on these updated estimates of population.

In recent years, the HHRU has surveyed dental hygienists, diagnostic medical sonographers, clinical engineers and biomedical engineering technologists and technicians, and social workers in health care in an effort to increase the amount of information available for these groups. The response rate to these surveys has varied widely, and the time and effort involved to survey the groups has been extensive. For these reasons, a decision was made to not conduct any surveys for *ROLLCALL 97*. For clinical engineers and biomedical engineering technologists and technicians and for social workers, data are not available from a formal licensing body or professional association with a broad registrant or membership base. These two groups have therefore been excluded from *ROLLCALL 97*. We hope we will be able to include them again in the future. For diagnostic medical sonographers and dental hygienists, some data are available from a society and an association or college with a broad registrant or membership base. The amount of information available and published in *ROLLCALL 97* on these two groups has decreased as a result of our no longer surveying these groups, but the comprehensiveness of the available and published information has been increased.

ROLLCALL 97 includes for the first time data on the newly regulated profession of opticians. Their inclusion was made possible this year because of the availability of a reliable registration database for their personnel. Another difference which should be noted from previous editions of *ROLLCALL* is a change in the name of one profession. Public health inspectors are now referred to as environmental health officers.

The discussion and table found later in the introductory section describing the production index (PI) which appeared in previous editions of *ROLLCALL* is not included in *ROLLCALL 97*. The production index (PI) table was created from a combination of HHRU data available from several editions of both *ROLLCALL* and *PRODUCTION*. The latter report was a biennial publication which showed the number of students graduating each year from the various health professions education programs in British Columbia. As there were no data collected in 1997 on the number of students graduating from the various health profession education programs, it has not been possible to produce a production index (PI) table with 1997 data.

This introductory section is intended to present group data in a province-wide context by providing relative supply figures. Some caution is advised, however, in the interpretation and utilisation of comparative data because these are obtained from a myriad of sources. For instance, extensive variability exists in the degree of detail of the data provided by various organisations. As evident from Table 1, some associations and regulatory bodies obtain and provide much more information than

Table 1
Health Personnel in B.C.
by Data Available for Publication
in Rollcall '97 and Place of Graduation '97

Health Group	DEMOGRAPHICS				EDUCATION		REGISTRATION		EMPLOYMENT INFORMATION						
	PERSONAL IDENTIFIER	HOME ADDRESS	AGE	SEX	YEAR OF GRADUATION	PROV/COUNTRY OF GRADUATION	SPECIALTY/LEVEL OF CERTIFICATION	REGISTRATION/LICENCE DATE	REGISTRATION/LICENCE STATUS	EMPLOYMENT ADDRESS	EMPLOYMENT STATUS	FULL-TIME/PART-TIME/CASUAL	TYPE OF INSTITUTION	POSITION	AREA/FIELD OF SERVICE
Administrative Services															
Health Record Personnel (HRABC)	•	•			•		•	•	•				•	•	
Health Service Executives (Members)	•							•		•					
Dental Services															
Certified Dental Assistants	•	•	•	•	•	•		•	•						
Dental Hygienists	•	•	•	•	•	•		•	•		•				
Dental Technicians	•	•						•	•	•					
Dentists	•		•	•	•	•	•	•	•	•					
Denturists	•	•						•	•	•					
Health Standards															
Environmental Health Officers (BC health authorities & Health Canada)	•									•					
Lab. & Therapeutic Tech. Services															
Cardiology Technologists (CTABC)	•	•							•				•		
Clinical Perfusionists (CSCP)	•									•					
Diagnostic Medical Sonographers (ARDMS & BCUS)	•	•													
Medical Laboratory Technologists (CSLT/CSMLS)	•	•					•		•						
Medical Radiation Technologists (BCAMRT)	•	•	•				•		•	•	•	•	•	•	
Respiratory Therapists (BCSRT)	•	•													
Medical & Treatment Services															
Chiropractors	•							•		•					
Emergency Medical Assistants	•		•	•			•		•	•					
First Responders	•		•	•			•		•	•			•		
Naturopathic Physicians	•									•					
Opticians	•	•	•	•					•	•			•		
Optometrists	•									•					
Pharmacists	•	•	•	•	•	•		•	•	•	•		•	•	
Physicians	•		•	•	•	•	•	•	•	•					
Podiatrists	•		•	•		•			•	•					
Nursing Services															
Licensed Practical Nurses	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Registered Nurses	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Licensed Graduate Nurses	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Registered Psychiatric Nurses	•	•	•	•	•	•		•	•	•			•	•	•
Nutrition & Dietary Services															
Dietitians & Nutritionists (BCDNA)	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Nutrition Managers (PSNM & CSNM)	•	•													
Psychological Services															
Counsellors (BCACC)	•	•	•	•					•	•					
Psychologists	•	•	•	•	•	•		•	•	•	•		•		•
Rehabilitation Services															
Aud. & Speech/Lang. Pathologists (BCASLPA)	•	•							•				•		
Massage Therapists	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Occupational Therapists (BCSOT)	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Physical Therapists	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Prosthetists & Orthotists (CBCPO & CAPO)	•						•			•					

others. To some degree, this limits the reporting ability of *ROLLCALL 97*, *INVENTORY 97*, and their companion document, *PLACE OF GRADUATION 97*.

It should also be noted that analyses in this section do not provide conclusive information regarding health human resources imbalances. Regional inequalities in personnel distribution may or may not indicate deficiencies or excesses in service availability. While deficiencies or excesses may indeed exist in certain instances, the data provided in the following pages are not sufficient to draw such conclusions since many factors interact to determine the optimal distribution and level of healthcare personnel in any region. For instance, the demography and needs of the population, service functions of institutions and professions within a region, accessibility and availability of communication and transportation resources, productivity of the respective professionals under study, and the potential for possible transfer of functions between members of the formal and informal health care provider groups may all influence health human resources needs. The personnel to population ratios in the ensuing tables do not adjust for such factors and should be used only as a basis for informed discussion and further investigation.

I. PROVINCIAL SUMMARY

Between 1995 and 1997 the overall population of British Columbia increased by a total of 4.46 percent (at an average annual rate of 2.21), rising from an estimated total of 3,753,980 in 1995 to 3,921,546 in 1997 (see Appendix B). This is a slower rate of growth than the annual average rate of 2.6 seen between 1993 and 1995. The percent change in population for individual health regions ranged from a high in the Coast Garibaldi Region of 7.56% to a low in the Capital Region of 1.74% (two year totals). As with the 93-95 period, there were no health regions that experienced a decline in population. As before, the two year total population growth in both the Vancouver and Capital Health Regions lagged behind the provincial average at 2.32% and 1.74%, respectively.

Women continue to account for just over 50% of the population of British Columbia, though the distribution of males and females varies by age (see Appendix B). It is noteworthy, for instance, that males outnumber females in all age groups except those between 35 and 44 years and those over 65 years. In the last two years, the disparity between men and women over 65 years has grown from a sex ratio of 0.77 to 0.79.

Looking at the age distribution across the province, the North West, Peace Liard and Northern Interior Health Regions continue to show both a high representation among the youngest age group and an extremely low percentage of population from the oldest age group. Specifically, the under-25 group comprises 32.9% of the provincial population, but 40.01%, 40.40% and 39.14% of the population of these health regions, respectively. The 65+ age group comprises 12.84% of the provincial population but only 6.38%, 6.58% and 6.62% of the respective populations of these health regions. The South Fraser Valley, Simon Fraser, Vancouver and Capital Health Regions all show high proportions of under-25's, 25-44's, and 35-44's, but for 45+, the Fraser Valley, South Okanagan, and Central Vancouver Island Health Regions pick up significantly, while the Vancouver, Capital, South Fraser Valley and Simon Fraser Health Regions drop off more abruptly. For the province as a whole, while the proportion of younger people has dropped slightly in the last two years, the proportion of 65+ has increased.

Population growth in this province continues to result largely from migration from other Canadian provinces and abroad. In part, this results in an influx of healthcare personnel educated in other provinces or countries. British Columbia is therefore a beneficiary of a breadth of healthcare personnel trained elsewhere who choose to relocate here. This is reflected in Table 2 which presents data for place of graduation of thirteen separate health professions. Most notable is that for most groups (7 of 13), the majority of persons are trained outside British Columbia. For instance, B.C. trained physicians comprised only 26.86% of directory active physicians in 1997, and only 52.38% of the registered nurses and 27.95% of the physical therapists are B.C. graduates. Alberta and Ontario continue to be the two Canadian provinces contributing the largest proportion of non-B.C. Canadian-trained health professionals. The majority of health professionals are trained in other regions of Canada, but in specific instances (e.g., physical therapists 34.29%, physicians 27.98%, and psychologists 27.77%), a sizeable percentage also come from other countries.

(a) Health Personnel by Group Type and Employment Status

Table 3 presents health human resources data based on group type and employment status in an attempt to compare and contrast the types of data available for each. Table 3 classifies the health human resources groups into two categories based on licensing requirements: mandatory registration groups (where membership is strictly controlled and mandatory for employment in the field); and, voluntary membership groups (where membership may be controlled, but is not required in order to obtain employment in the field). Employment status information is collected with varying degrees of completeness by the professional associations. For roughly half of the professions detailed in *ROLLCALL 97*, there is no specific information available regarding employment in the field. The type of information available as well as the type of professional group should be kept in mind when making comparisons about health human resources deployment across the health regions in the province.

There are two groups which appear as sub-groups in their respective chapters; first responders are found in Chapter 16 with emergency medical assistants, and licensed graduate nurses are found in Chapter 24 with registered nurses.

The usefulness of these data in estimating the number of personnel working in each profession is limited by the completeness of the information available to the HHRU. In some instances, regulatory bodies may over-estimate the number of personnel actually working where membership is required to be employed in those fields. As everyone must be a member of the regulatory body to be employed, those who are temporarily not working may retain membership in order to avoid the necessity of re-examination should they choose to return to the workforce. This problem is eliminated where the regulatory body asks about employment status, but this is done by only eleven of the regulatory bodies (see Table 1). (Data for environmental health officers and emergency medical assistants are collected only for those known to be employed in the field.)

In contrast, the voluntary membership groups likely under-represent the population of people working in those fields. Because membership is voluntary, it is not necessary to become a member in order to be employed, so varying percentages of the workforce may simply choose to avoid membership. For some groups, the problem of obtaining a complete count of personnel is reduced by using more than one membership list if multiple associations exist (e.g., health services executives, diagnostic medical sonographers, and nutrition managers). While still voluntary, under-representation may be kept to a minimum in certain professions where group membership is strongly urged by employers (e.g., medical laboratory technologists). However, it remains impossible to determine what percentage of the workforce is represented within each group where membership remains voluntary.

Table 2
Selected Health Personnel¹ in British Columbia
by Place of Graduation
1997

Health Group	Place of Graduation															
	B.C.		Alberta		Saskatchewan & Manitoba		Ontario		Other Canada		Canada Subtotal		Other Country		Unknown	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Dental Services																
Certified Dental Assistants	4,373	91.05	169	3.52	48	1.00	4	0.08	8	0.17	4,602	95.82	201	4.18	0	0.00
Dental Hygienists	758	46.39	183	11.20	155	9.49	248	15.18	131	8.02	1,475	90.27	159	9.73	0	0.00
Dentists	922	36.95	393	15.75	244	9.78	216	8.66	246	9.86	2,021	81.00	469	18.80	5	0.20
Medical & Treatment Services																
Pharmacists	2,136	74.66	158	5.52	256	8.95	51	1.78	39	1.36	2,640	92.28	195	6.82	26	0.91
Physicians (Directory Active)	2,320	26.86	1,057	12.24	742	8.59	1,396	16.16	704	8.15	6,219	72.01	2,416	27.98	1	0.01
Nursing Services																
Licensed Practical Nurses	3,517	66.96	384	7.31	343	6.53	408	7.77	185	3.52	4,837	92.10	282	5.37	133	2.53
Registered Nurses	16,290	52.38	2,612	8.40	2,641	8.49	3,151	10.13	1,687	5.42	26,381	84.83	4,710	15.15	8	0.03
Registered Psychiatric Nurses	1,619	63.12	99	3.86	306	11.93	0	0.00	0	0.00	2,024	78.91	339	13.22	202	7.88
Nutrition & Dietary Services																
Dietitians & Nutritionists	377	48.21	81	10.36	67	8.57	95	12.15	105	13.43	725	92.71	55	7.03	2	0.26
Psychological Services																
Psychologists	348	39.28	84	9.48	41	4.63	131	14.79	36	4.06	640	72.23	246	27.77	0	0.00
Rehabilitation Services																
Massage Therapists	809	68.27	2	0.17	2	0.17	337	28.44	0	0.00	1,150	97.05	18	1.52	17	1.43
Occupational Therapists	334	37.95	83	9.43	41	4.66	126	14.32	58	6.59	642	72.95	221	25.11	17	1.93
Physical Therapists	652	27.95	202	8.66	175	7.50	318	13.63	162	6.94	1,509	64.68	800	34.29	24	1.03
TOTAL	34,455	52.67	5,507	8.42	5,061	7.74	6,481	9.91	3,361	5.14	54,865	83.88	10,111	15.46	435	0.67

¹ Place of graduation is not available for all health groups. Therefore, the total number shown here will be less than the total shown in Table 5 of this section.

Table 3
Health Personnel Groups in British Columbia
by Group Type by Employment Status
1997

	Employed in Field ¹	Not Employed In Field ²	Employment Status Unknown	TOTAL
MANDATORY REGISTRATION GROUPS				
Certified Dental Assistants (CDSBC)	-	-	4,803	4,803
Dental Hygienists (CDHBC)	1,421	91	122	1,634
Dental Technicians (CDTBC)	-	-	548	548
Dentists (CDSBC)	-	94	2,401	2,495
Denturists (CDBC)	-	14	216	230
Chiropractors (BCCC)	-	-	646	646
Emergency Medical Assistants (EMALB)	2,773	-	-	2,773
First Responders ³ (EMALB)	7,266	-	5	7,271
Naturopathic Physicians (ANPBC)	-	-	119	119
Opticians (COBC)	993	175	28	1,196
Optometrists (BCAO)	-	-	311	311
Pharmacists (CPBC)	2,477	384	-	2,861
Physicians (CPSBC & MSC)	-	-	8,636	8,636
Podiatrists (BCAP)	-	-	79	79
Licensed Practical Nurses (BCCLPN)	4,485	744	23	5,252
Registered Nurses (RNABC)	27,642	3,457	-	31,099
Licensed Graduate Nurses (RNABC)	294	27	-	321
Registered Psychiatric Nurses (RPNABC)	2,210	355	-	2,565
Psychologists (CPBC)	787	99	0	886
Massage Therapists (CMTBC)	905	13	267	1,185
Physical Therapists (CPTBC)	1,864	263	206	2,333
SUB TOTAL	53,117	5,716	18,410	77,243
VOLUNTARY MEMBERSHIP GROUPS				
Health Record Personnel (HRABC)	314	29	41	384
Health Services Executives (CCHSE, HAABC & ACHE)	-	-	438	438
Environmental Health Officers (BC health authorities & Health Canada)	305	-	-	305
Cardiology Technologists (CTABC)	249	-	9	258
Clinical Perfusionists (CSCP)	30	-	-	30
Diagnostic Medical Sonographers (BCUS & ARDMS)	-	-	378	378
Medical Laboratory Technologists (CSLT/CSMLS)	-	400	2,556	2,956
Medical Radiation Technologists (BCAMRT)	1,429	49	70	1,548
Respiratory Therapists (BCSRT)	-	-	430	430
Dietitians and Nutritionists (BCDNA)	-	-	782	782
Nutrition Managers (PSNM & CSNM)	-	-	255	255
Counsellors (BCACC)	-	-	808	808
Audiologists & Speech/Language Pathologists (BCASLPA)	460	-	32	492
Occupational Therapists (BCSOT)	775	102	3	880
Prosthetists and Orthotists (CBCPO & CAPO)	-	-	64	64
SUB TOTAL	3,562	580	5,866	10,008

¹ Includes personnel who are known to be employed in the field as reported by the regulatory body or membership society or association.

² Includes personnel who have a membership or registration status which makes them ineligible for employment in the field, and those who are reported as "employed in another field", "unemployed", "on leave" or "not practicing" by the regulatory body, or membership society or association.

³ Information is collected only for those known to be employed and certified as first responders. However, acting as a first responder is not the primary duty of this employment group (i.e., most are firemen or policemen). See Chapter 16.

(b) Age and Sex

Table 4 displays age and sex information for all groups where available. The total number of males and females in each health human resources group is organised according to standard age categories developed and used by Statistics Canada. Caution is advised when interpreting some of these figures, particularly with groups where the proportion of personnel with unknown information is substantial (e.g., medical radiation technologists, opticians, counsellors, and occupational therapists).

Figure 1 visually illustrates data from the Subtotal columns in Table 4, where the health human resources groups are arranged in descending order of female concentration. Using both Table 4 and Figure 1, we can see males account for slightly less than one-third of the total health personnel in BC. If registered nurses are excluded (the largest health human resources group by far and predominantly female), the proportion of males and females changes substantially: where gender is known, 46.57% are men and 58.43% are women. Overall, the highest concentrations of female personnel were among certified dental assistants, licensed graduate nurses, registered dietitians and nutritionists, registered nurses and dental hygienists. Women comprised over 95 percent of membership for each of these groups, a proportion that has decreased slightly since 1995 (97% then). Physicians (74.11%), podiatrists (87.14%), dentists (82.16%), and emergency medical assistants (72.23%) are predominantly male. The only groups with roughly equal gender representation are pharmacists, opticians, and psychologists.

For most groups, the highest proportions of personnel fall into the age category 35 - 44 years. The groups with higher proportions of personnel in younger age groups were the certified dental assistants, dental hygienists and massage therapists. Over 70% of the EMA's are under 44. The youngest health human resources group is that of the dental hygienists, as 41.87% are in the age group 25 - 34, followed closely by CDA's (41.72%) and MT's (38.40%). The groups with higher proportions of personnel in the older age categories were psychologists (29.80%), registered psychiatric nurses (16.30%), physicians (21.93%) and dentists (17.59%). However, psychologists constitute the oldest group, in which almost a third are older than 55 years of age.

(c) Inter-Regional Distribution

The next four tables illustrate the distribution of health human resources groups throughout the province. As noted earlier, the data presented in *ROLLCALL* should be used with caution when making this type of comparison. For instance, a region which contains a specialised facility that operates within a large catchment area and which is the principal employer for a particular group may show a high personnel to population ratio. The ratio for that region would not necessarily reflect a surplus of workers, just as lower ratios in the districts surrounding that catchment area need not imply shortages. For some groups, low rates per 10,000 population may be expressive of economies of scale, for others low rates might signify under-utilisation of human resources, and for still others it might mean a true lack of health human resources for the population.

(i) Personnel and Provincial Population Distribution

Table 5 illustrates the number and Table 6 the percent distribution of the health human resources groups in relation to the distribution of hospital beds, pharmacies, and population for 1995 and 1997 in each of nine Health Human Resources Unit (HHRU) health regions (see Appendix A for a map). According to Table 6, the Vancouver & District health region accounted for 48.29 percent of the provincial population in 1995 and 49.19% in 1997. It also accounted for slightly fewer of the

Table 4
Selected Health Personnel¹ in British Columbia
by Age and Sex
1997

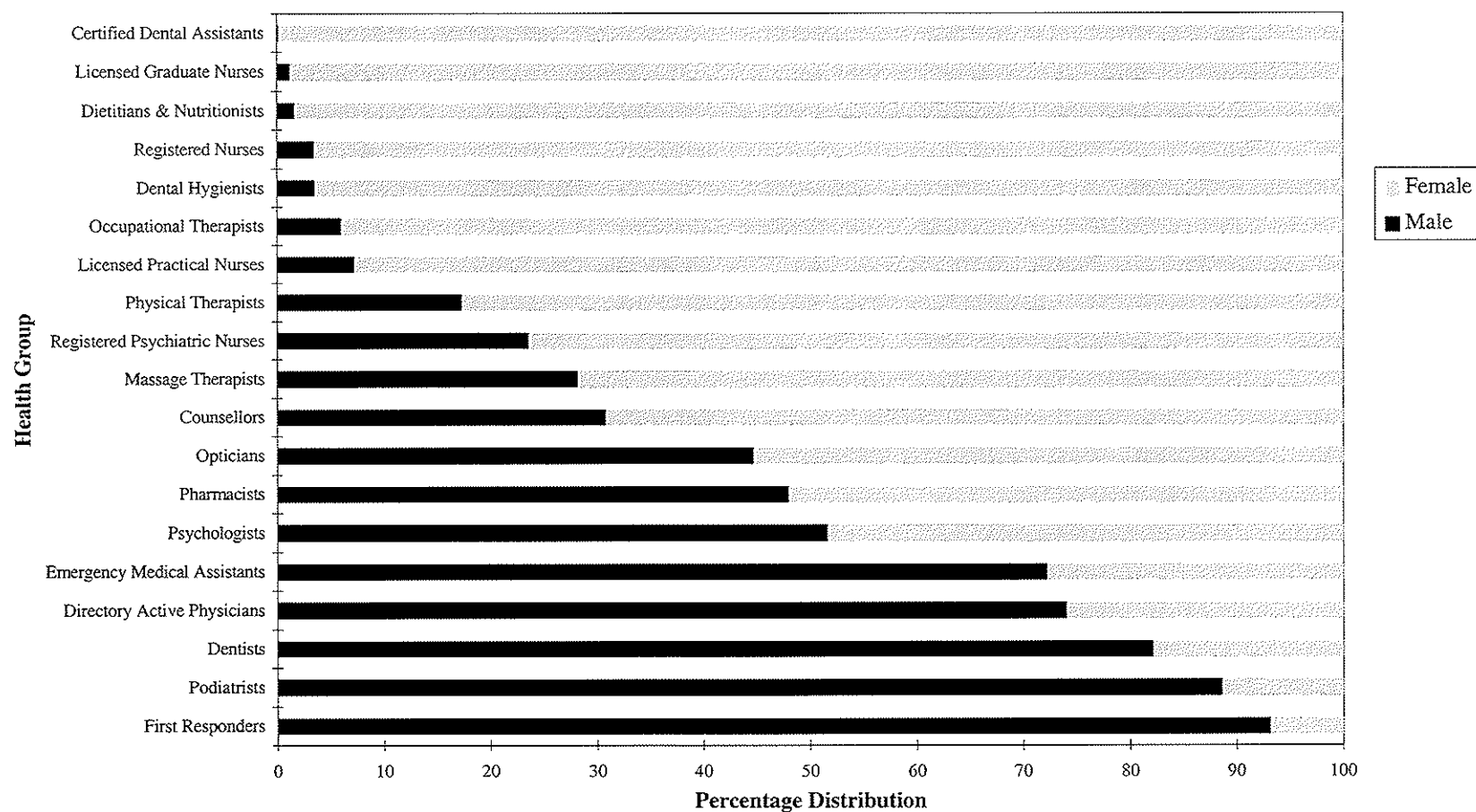
<i>Health Group</i>	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Gender Unknown	Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
<i>Dental Services</i>																		
Certified Dental Assistants	0	498	6	2,004	1	1,761	1	479	0	49	0	1	0	3	8	4,795	0	4,803
Dental Hygienists	1	64	24	664	17	575	13	255	3	13	0	3	0	2	58	1,576	0	1,634
Dentists	0	3	377	163	569	189	678	71	320	15	100	4	6	0	2,050	445	0	2,495
<i>Lab. & Therapeutic Tech. Services</i>																		
Medical Radiation Technologists ²	42		417		432		300		73		1		283		1,265		-	1,548
<i>Medical & Treatment Services</i>																		
Emergency Medical Assistants	125	66	599	285	778	278	415	114	81	21	1	1	4	5	2,003	770	0	2,773
First Responders	411	32	1,952	203	2,501	163	1,550	67	266	17	17	2	76	14	6,773	498	0	7,271
Opticians	14	33	60	119	69	107	70	60	19	11	2	0	301	331	535	661	0	1,196
Pharmacists	37	69	414	587	351	456	332	287	166	66	48	7	26	15	1,374	1,487	0	2,861
Physicians (Directory Active)	7	6	965	626	1,830	929	1,888	490	1,075	128	610	51	25	6	6,400	2,236	0	8,636
Podiatrists	0	0	10	4	29	4	23	1	2	0	5	0	1	0	70	9	0	79
<i>Nursing Services</i>																		
Licensed Practical Nurses	7	108	59	697	122	1,598	139	1,785	44	578	2	28	8	77	381	4,871	0	5,252
Registered Nurses	19	578	258	5,830	403	9,797	321	9,452	91	3,977	2	358	1	12	1,095	30,004	0	31,099
Licensed Graduate Nurses	0	0	0	4	2	65	2	179	0	61	0	8	0	0	4	317	0	321
Registered Psychiatric Nurses	5	39	56	390	129	517	247	713	148	242	8	20	13	38	606	1,959	0	2,565
<i>Nutrition & Dietary Services</i>																		
Dietitians & Nutritionists	0	12	5	255	5	266	1	166	0	38	0	4	2	28	13	769	0	782
<i>Psychological Services</i>																		
Counsellors	0	0	12	23	61	143	96	256	37	83	5	13	38	41	249	559	0	808
Psychologists	0	0	6	22	76	96	210	212	136	79	30	19	0	0	458	428	0	886
<i>Rehabilitation Services</i>																		
Massage Therapists	12	40	122	333	119	287	61	157	12	25	8	2	0	7	334	851	0	1,185
Occupational Therapists	0	7	19	217	23	275	8	172	0	49	1	2	2	105	53	827	0	880
Physical Therapists	9	33	136	477	136	617	77	568	29	187	7	23	10	23	404	1,928	1	2,333
TOTAL³	647	1,588	5,080	12,903	7,221	18,123	6,132	15,484	2,429	5,639	846	546	513	707	22,868	54,990	1	77,859

¹ Age and sex information are not available for all health groups. Therefore, the total number shown here will be less than the total shown in the first table of this section.

² Data for medical radiation technologists are not available by gender.

³ Total excludes medical radiation technologists.

Figure 1
Sex Distribution of Selected Health Personnel in British Columbia, 1997



Prepared by:
 Health Human Resources Unit
 Centre for Health Services and Policy Research
 The University of British Columbia

Table 5
Health Personnel, Hospital Beds, Community Pharmacies and Population in British Columbia
by HHRU Health Region
1997

Health Group	Vancouver & District	Capital	Fraser Valley	Okanagan	South- East	Island Coast	Central	North Central	North	Total
Administrative Services										
Health Record Personnel (HRABC)	215	27	13	28	24	34	20	19	4	384
Health Service Executives (Members)	230	58	17	25	27	31	20	20	10	438
Dental Services										
Certified Dental Assistants	2,087	450	338	462	208	642	249	308	59	4,803
Dental Hygienists	797	206	80	145	56	163	83	92	12	1,634
Dental Technicians	381	47	17	40	5	31	13	13	1	548
Dentists	1,467	230	100	189	85	216	87	97	24	2,495
Denturists	114	29	9	28	6	27	6	9	2	230
Health Standards										
Environmental Health Officers	136	28	16	25	16	34	22	22	6	305
Lab. & Therapeutic Tech. Services										
Cardiology Technologists (CTABC)	156	27	14	18	4	29	5	4	1	258
Clinical Perfusionists (CSCP)	25	5	0	0	0	0	0	0	0	30
Diagnostic Medical Sonographers (BCUS & ARDMS)	207	36	23	28	15	38	10	13	8	378
Medical Laboratory Technologists (CSLT/CSMLS)	1,557	260	124	249	131	286	149	161	39	2,956
Medical Radiation Technologists (BCAMRT)	832	161	60	114	74	133	79	71	24	1,548
Respiratory Therapists (BCSRT)	222	49	12	49	5	31	45	10	7	430
Medical & Treatment Services										
Chiropractors	285	90	32	79	31	79	27	16	7	646
Emergency Medical Assistants	572	201	111	256	290	555	288	378	122	2,773
First Responders	3,186	953	386	450	260	1,112	293	554	77	7,271
Naturopathic Physicians	57	17	3	17	6	11	4	4	0	119
Opticians	700	107	71	118	19	90	51	34	6	1,196
Optometrists	133	33	19	28	20	32	23	18	5	311
Pharmacists	1,620	263	142	233	86	240	118	130	29	2,861
Physicians (Directory Active)	5,171	938	324	586	264	685	287	322	59	8,636
Podiatrists	50	12	2	7	0	5	1	2	0	79
Nursing Services										
Licensed Practical Nurses	1,876	545	236	729	407	745	336	290	88	5,252
Registered Nurses	16,094	3,800	1,399	2,561	1,242	2,677	1,485	1,493	348	31,099
Licensed Graduate Nurses	251	17	7	7	12	14	2	7	4	321
Registered Psychiatric Nurses	1,779	141	141	176	37	126	86	58	21	2,565
Nutrition & Dietary Services										
Dietitians & Nutritionists (BCDNA)	470	88	23	50	34	53	32	28	4	782
Nutrition Managers (PSNM & CSNM)	145	22	21	14	15	23	6	7	2	255
Psychological Services										
Counsellors (BCACC)	442	130	51	46	14	75	30	14	6	808
Psychologists	559	153	28	33	19	57	15	19	3	886
Rehabilitation Services										
Aud. & Speech/Lang. Pathologists (BCASLPA)	262	54	24	41	19	46	22	19	5	492
Massage Therapists	637	132	35	112	59	139	44	21	6	1,185
Occupational Therapists (BCSOT)	545	92	17	81	21	67	27	27	3	880
Physical Therapists (Full & Limited)	1,148	255	74	213	84	206	82	72	22	2,156
Prosthetists & Orthotists (CBCPO & CAPO)	33	11	1	9	0	3	5	2	0	64
TOTAL	44,441	9,667	3,970	7,246	3,595	8,735	4,052	4,354	1,014	87,074
Hospital Beds ¹										
Acute Care Beds	4,225	992	400	866	426	793	463	511	171	8,847
Extended Care Beds	4,009	1,375	601	940	357	789	350	152	55	8,628
Rehabilitation Beds	242	0	0	0	0	0	0	0	0	242
TOTAL BEDS	8,476	2,367	1,001	1,806	783	1,582	813	663	226	17,717
Community Pharmacies	331	64	40	61	34	84	35	38	10	697
B.C. Population	1,929,196	332,015	233,830	339,749	161,042	432,834	206,734	220,987	65,159	3,921,546

¹ Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.

Table 6
Percentage Distribution of Health Personnel, Hospital Beds, Community Pharmacies and Population in British Columbia
by HHRU Health Region
1997

Health Group	Vancouver & District	Capital	Fraser Valley	Okanagan	South- East	Island Coast	Central	North Central	North	Total
Administrative Services										
Health Record Personnel (HRABC)	55.99	7.03	3.39	7.29	6.25	8.85	5.21	4.95	1.04	100.00
Health Service Executives (Members)	52.51	13.24	3.88	5.71	6.16	7.08	4.57	4.57	2.28	100.00
Dental Services										
Certified Dental Assistants	43.45	9.37	7.04	9.62	4.33	13.37	5.18	6.41	1.23	100.00
Dental Hygienists	48.78	12.61	4.90	8.87	3.43	9.98	5.08	5.63	.73	100.00
Dental Technicians	69.53	8.58	3.10	7.30	.91	5.66	2.37	2.37	.18	100.00
Dentists	58.80	9.22	4.01	7.58	3.41	8.66	3.49	3.89	.96	100.00
Denturists	49.57	12.61	3.91	12.17	2.61	11.74	2.61	3.91	.87	100.00
Health Standards										
Environmental Health Officers	44.59	9.18	5.25	8.20	5.25	11.15	7.21	7.21	1.97	100.00
Lab. & Therapeutic Tech. Services										
Cardiology Technologists (CTABC)	60.47	10.47	5.43	6.98	1.55	11.24	1.94	1.55	.39	100.00
Clinical Perfusionists (CSCP)	83.33	16.67	.00	.00	.00	.00	.00	.00	.00	100.00
Diagnostic Medical Sonographers (BCUS & ARDMS)	54.76	9.52	6.08	7.41	3.97	10.05	2.65	3.44	2.12	100.00
Medical Laboratory Technologists (CSLT/CSMLS)	52.67	8.80	4.19	8.42	4.43	9.68	5.04	5.45	1.32	100.00
Medical Radiation Technologists (BCAMRT)	53.75	10.40	3.88	7.36	4.78	8.59	5.10	4.59	1.55	100.00
Respiratory Therapists (BCSRT)	51.63	11.40	2.79	11.40	1.16	7.21	10.47	2.33	1.63	100.00
Medical & Treatment Services										
Chiropractors	44.12	13.93	4.95	12.23	4.80	12.23	4.18	2.48	1.08	100.00
Emergency Medical Assistants	20.63	7.25	4.00	9.23	10.46	20.01	10.39	13.63	4.40	100.00
First Responders	43.82	13.11	5.31	6.19	3.58	15.29	4.03	7.62	1.06	100.00
Naturopathic Physicians	47.90	14.29	2.52	14.29	5.04	9.24	3.36	3.36	.00	100.00
Opticians	58.53	8.95	5.94	9.87	1.59	7.53	4.26	2.84	.50	100.00
Optometrists	42.77	10.61	6.11	9.00	6.43	10.29	7.40	5.79	1.61	100.00
Pharmacists	56.62	9.19	4.96	8.14	3.01	8.39	4.12	4.54	1.01	100.00
Physicians (Directory Active)	59.88	10.86	3.75	6.79	3.06	7.93	3.32	3.73	.68	100.00
Podiatrists	63.29	15.19	2.53	8.86	.00	6.33	1.27	2.53	.00	100.00
Nursing Services										
Licensed Practical Nurses	35.72	10.38	4.49	13.88	7.75	14.19	6.40	5.52	1.68	100.00
Registered Nurses	51.75	12.22	4.50	8.23	3.99	8.61	4.78	4.80	1.12	100.00
Licensed Graduate Nurses	78.19	5.30	2.18	2.18	3.74	4.36	.62	2.18	1.25	100.00
Registered Psychiatric Nurses	69.36	5.50	5.50	6.86	1.44	4.91	3.35	2.26	.82	100.00
Nutrition & Dietary Services										
Dietitians & Nutritionists (BCDNA)	60.10	11.25	2.94	6.39	4.35	6.78	4.09	3.58	.51	100.00
Nutrition Managers (PSNM & CSNM)	56.86	8.63	8.24	5.49	5.88	9.02	2.35	2.75	.78	100.00
Psychological Services										
Counsellors (BCACC)	54.70	16.09	6.31	5.69	1.73	9.28	3.71	1.73	.74	100.00
Psychologists	63.09	17.27	3.16	3.72	2.14	6.43	1.69	2.14	.34	100.00
Rehabilitation Services										
Aud. & Speech/Lang. Pathologists (BCASLPA)	53.25	10.98	4.88	8.33	3.86	9.35	4.47	3.86	1.02	100.00
Massage Therapists	53.76	11.14	2.95	9.45	4.98	11.73	3.71	1.77	.51	100.00
Occupational Therapists (BCSOT)	61.93	10.45	1.93	9.20	2.39	7.61	3.07	3.07	.34	100.00
Physical Therapists (Full & Limited)	53.25	11.83	3.43	9.88	3.90	9.55	3.80	3.34	1.02	100.00
Prosthetists & Orthotists (CBCPO & CAPO)	51.56	17.19	1.56	14.06	.00	4.69	7.81	3.13	.00	100.00
TOTAL	51.04	11.10	4.56	8.32	4.13	10.03	4.65	5.00	1.16	100.00
Hospital Beds¹										
Acute Care Beds	47.76	11.21	4.52	9.79	4.82	8.96	5.23	5.78	1.93	100.00
Extended Care Beds	46.46	15.94	6.97	10.89	4.14	9.14	4.06	1.76	.64	100.00
Rehabilitation Beds	100.00	.00	.00	.00	.00	.00	.00	.00	.00	100.00
TOTAL BEDS	47.84	13.36	5.65	10.19	4.42	8.93	4.59	3.74	1.28	100.00
Community Pharmacies	47.49	9.18	5.74	8.75	4.88	12.05	5.02	5.45	1.43	100.00
B.C. Population	49.19	8.47	5.96	8.66	4.11	11.04	5.27	5.64	1.66	100.00

¹ Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.

province's psychologists (63.79% in 1995; 63.09% in 1997), slightly more of the OT's (61.40% in 1995 and 61.93% in 1997), and fewer physicians (60.48 % in 1995; 59.88% in 1997). In contrast, the Vancouver & District health region experienced an increase in their proportion of EMA's (18.08 in 1995; 20.63% in 1997), and lost LPN's (the Vancouver & District's proportion declined from 36.81% in 1995 to 35.72% in 1997). A quick look at the North health region shows a very different picture. This health region still represents only 1.66 percent of the provincial population, but its share of the province's psychologists has risen from 0.24% in 1995 to 0.34% in 1997. There has been a similar increase in the proportion of OT's in the North (from 0.24% in 1995 to 0.34% in 1997), with an increase in the proportion of PT's (0.97% in 1995; 1.02% in 1997), but a decrease in the proportion of physicians (0.77% in 1995; 0.68% in 1997) and LPN's (1.90% in 1995; 1.68% in 1997). In addition, the North has increased its percentage of EMA's from 4.21% to 4.40% in 1997. There are several health human resources groups which are fairly well-represented in the more sparsely populated health regions. Emergency medical assistants, optometrists, CDA's, environmental health officers, medical radiation technologists, and licensed practical nurses all show percentages higher than those of the provincial population for several of the least-populated health regions.

Again, it is difficult to make generalisations about what this truly means, though this evidence does point out areas requiring further investigation. When determining the relative importance of these figures, it must be kept in mind that it is the urban centres which provide tertiary care facilities and thus require higher levels of health human resources; a certain amount of disparity, especially in the hospital-based employee groups, is to be expected. In addition, it is possible these economies of scale particularly affect some of these groups, so that areas with larger population concentrations might require fewer personnel to fully meet health needs. It is also feasible that some of the work these groups do in less populated areas is done by other health professionals in higher population regions, or that more task-sharing is done in denser areas. Regardless of the data limitations, these tables give a quick indication of health human resources distributions that might bear further investigation.

(ii) Average Annual Rate of Change

Table 7 shows the number and number per 10,000 population in 1995 and 1997 for each health human resources group and the average annual rates of change in these numbers. The six groups for which average annual rates of change cannot be calculated are health service executives, CDA's, diagnostic medical sonographers, MRT's, opticians and counsellors. The average annual rate of change in number reflects the average yearly percentage growth in number of personnel in a health profession.² The average annual rate of change in ratio reflects the average yearly percentage growth of personnel in a health profession relative to the growth in the overall population; this number tells us if the profession grew faster than the population (a positive number), at the same rate as the population (0), or more slowly than the population (a negative number).³ The calculation is made based on total membership of each of the groups, so several factors should be kept in mind when looking at these

² Average annual rates of change (in percent) in the number of personnel are computed as follows:

$$[(\text{Personnel 1997}/\text{Personnel 1995})^{12/n} - 1] \times 100,$$

where n=number of months separating the 1995 and 1997 data based on the dates of record listed for each group.

³ Average annual rates of change (in percent) in the ratio (number of personnel relative to the change in population) are computed as follows:

$$[(\text{Personnel 1997}/\text{Personnel 1995}) \times (\text{Population 1995}/\text{Population 1997})]^{12/n} - 1] \times 100,$$

where n=number of months separating the two sets of data.

Table 7
Health Personnel, Hospital Beds, Community Pharmacies and Population
in British Columbia
1995 and 1997¹

Health Group	Number		Number per 10,000 Population		Average Annual Rate of Change	
	1995	1997	1995	1997	Number ²	Ratio ³
Administrative Services						
Health Record Personnel (HRABC)	411	384	1.09	0.98	-2.87	-4.67
Health Service Executives (Members) ⁴	n/a	438	n/a	1.12	n/a	n/a
Dental Services						
Certified Dental Assistants ⁵	n/a	4,803	n/a	12.25	n/a	n/a
Dental Hygienists ⁶	1,475	1,634	3.93	4.17	6.02	3.41
Dental Technicians ⁶	518	548	1.38	1.40	3.12	0.69
Dentists	2,303	2,495	6.13	6.36	3.76	1.69
Denturists ⁶	240	230	0.64	0.59	-2.29	-4.59
Health Standards						
Environmental Health Officers (BC health authorities & Health Canada)	307	305	0.82	0.78	-0.36	-2.70
Lab. & Therapeutic Tech. Services						
Cardiology Technologists (CTABC)	312	258	0.83	0.66	-7.82	-9.53
Clinical Perfusionists (CSCP)	28	30	0.07	0.08	3.11	1.13
Diagnostic Medical Sonographers (BCUS & ARDMS) ⁴	n/a	378	n/a	0.96	n/a	n/a
Medical Laboratory Technologists (CSLT/CSMLS)	3,243	2,956	8.64	7.54	-4.72	-6.87
Medical Radiation Technologists (BCAMRT) ⁵	n/a	1,548	n/a	3.95	n/a	n/a
Respiratory Therapists (BCSRT)	342	430	0.91	1.10	10.71	8.58
Medical & Treatment Services						
Chiropractors	557	646	1.48	1.65	6.81	4.76
Emergency Medical Assistants	2,754	2,773	7.34	7.07	0.36	-1.90
First Responders	5,929	7,271	15.79	18.54	10.74	8.35
Naturopathic Physicians	93	119	0.25	0.30	10.01	8.17
Opticians ⁷	n/a	1,196	n/a	3.05	n/a	n/a
Optometrists	286	311	0.76	0.79	4.10	1.94
Pharmacists	2,733	2,861	7.28	7.30	1.85	0.08
Physicians (Directory Active)	8,416	8,636	22.42	22.02	1.36	-0.93
Podiatrists	71	79	0.19	0.20	5.73	3.35
Nursing Services						
Licensed Practical Nurses	5,673	5,252	15.11	13.39	-3.78	-5.86
Registered Nurses	30,952	31,099	82.45	79.30	0.24	-1.93
Licensed Graduate Nurses	389	321	1.04	0.82	-9.16	-11.12
Registered Psychiatric Nurses	2,681	2,565	7.14	6.54	-2.50	-4.90
Nutrition & Dietary Services						
Dietitians & Nutritionists (BCDNA)	759	782	2.02	1.99	1.50	-0.69
Nutrition Managers (PSNM & CSNM)	247	255	0.66	0.65	1.61	-0.59
Psychological Services						
Counsellors (BCACC) ⁴	n/a	808	n/a	2.06	n/a	n/a
Psychologists	834	886	2.22	2.26	3.07	0.84
Rehabilitation Services						
Aud. & Speech/Lang. Pathologists (BCASLPA)	460	492	1.23	1.25	2.82	0.83
Massage Therapists	937	1,185	2.50	3.02	12.46	10.03
Occupational Therapists (BCSOT)	829	880	2.21	2.24	2.79	0.74
Physical Therapists (Full & Limited)	2,067	2,156	5.51	5.50	1.76	-0.06
Prosthetists & Orthotists (CBCPO & CAPO)	59	64	0.16	0.16	3.98	1.82
TOTAL⁸	75,905	77,903	202.20	198.65	1.31	-0.88
Hospital Beds⁹						
Acute Care Beds	9,331	8,847	24.86	22.56	-2.63	-4.73
Extended Care Beds	8,617	8,628	22.95	22.00	0.06	-2.10
Rehabilitation Beds	287	242	0.76	0.62	-8.17	-10.16
TOTAL BEDS	18,235	17,717	48.58	45.18	-1.43	-3.56
Community Pharmacies	659	697	1.75	1.77	2.27	0.51
Population	3,753,980	3,921,546	n/a	n/a	2.21	n/a

¹ Dates of record differ for health groups. Please refer to the Introduction for specific dates of record for each group.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

⁴ Due to changes in data collection, 1995 and 1997 numbers are not comparable. Hence, 1995 numbers are not shown.

⁵ Due to changes in registration categories, 1995 and 1997 numbers are not comparable. Hence, 1995 numbers are not shown.

⁶ Due to changes in the registration categories included in this table, the 1995 numbers shown are not comparable to those appearing in *ROLLCALL 95*.

⁷ Opticians appear in *ROLLCALL* for the first time in 1997. Hence, 1995 data are not available.

⁸ Total excludes Health Service Executives, Certified Dental Assistants, Diagnostic Medical Sonographers, Medical Radiation Technologists, Opticians and Counsellors because comparable data for 1995 and 1997 are not available.

⁹ Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.

* Indicates that the base for the rate of change is less than 10.

n/a - Not applicable/not comparable.

numbers. First, since the numbers used are the totals, the average annual rate of change may represent a growth in membership in the inactive or non-practising categories, and therefore not reflect growth in the number of personnel available for employment in the field (effective supply). Second, for membership groups, it is possible the average annual rate of change reflects growth in the percentage of people working in the field who are members, rather than actual growth in employment in the field.

Massage therapists show the greatest average annual rates of change in both number (12.46) and ratio (10.03). This would indicate this is the fastest growing health profession in British Columbia at this time. There is also considerable increase in the number and ratio for dental hygienists, respiratory therapists, chiropractors, first responders and naturopathic physicians. Alternatively, strongly decreasing rates of growth in the number and ratio were seen for denturists, cardiology technologists, medical laboratory technologists, LPN's, LGN's, and RPN's. Between 1995 and 1997, fourteen of thirty-six health workforce groups sustained negative rates of change in ratio; of these, only eight showed a decline in numbers as well.

(iii) Coefficient of Variation Across Health Regions

Table 8 is concerned with the relative supply of personnel across the health regions. Groups for which the 1995 and 1997 data are not comparable are indicated with an "n/a". For each group in Table 8, the cross-regional standard deviation of personnel to population ratios is divided by the mean personnel to population ratio of that group to generate the coefficient of variation ((standard deviation/mean) x 100). These coefficients yield a sense of the relative degrees of dispersion across health regions for the various health human resources groups. If all health regions had identical personnel to population ratios for a given health personnel group, the coefficient of variation would have a value of zero. The larger the coefficient, the less evenly distributed are the personnel.

For the thirty groups with comparable data, fifteen saw a slight or moderate decrease in the coefficient of variation from 1995 to 1997. Another eight showed a very small decrease (usually less than 0.7). The largest decreases were for naturopathic physicians, podiatrists, and registered psychiatric nurses, where the figure dropped by nine to ten points for each. This indicates a more even distribution of these groups across the health regions in 1997. The change for naturopathic physicians and podiatrists may be due to new entrants tending to start work in areas that were not well-served before, or may indicate that established practitioners are moving to under-served areas. RPN's have continued to experience relatively low growth in numbers from 1995 to 1997, but looking at Table 1a from Chapter 25, seven health regions out of twenty again show an increase in RPN's. This may relate to some degree to the slow movement toward more community-based psychiatric care. The remaining thirteen groups saw increases in their coefficients; for three, this increase was less than one. The largest increase occurred among the denturists, which went from 33.1 to 39.5. MLT's have passed CDA's as the most evenly dispersed group, but as both use home address for location purposes, the caveat about changes due to the use of employment address should be kept in mind.

(iv) Hospital Bed Capacity

Table 9 combines information from Appendices B and C, and shows the twenty health regions from most to least populated and ranked in terms of rated hospital bed capacity. The Vancouver health region is consistently highest in population and all hospital bed types. Beyond this, however, the bed rankings still do not seem to clearly coincide with population order. Burnaby, the eighth most populated health region, ranks twelfth for acute care beds, tying with the North West, which is fifteenth for population. By and large, the more densely populated regions tend to rank in the top half of the

Table 8
Coefficient of Variation¹
for Health Personnel, Hospital Beds and Community Pharmacies in British Columbia
1995² and 1997

Health Group	Coefficient of Variation	
	1995	1997
Administrative Services		
Health Record Personnel (HRABC)	36.4	37.2
Health Service Executives (Members)	n/a	44.4
Dental Services		
Certified Dental Assistants	20.4	19.9
Dental Hygienists	28.9	26.8
Dental Technicians	88.6	86.1
Dentists	31.8	31.7
Denturists	33.1	39.5
Health Standards		
Environmental Health Officers (BC health authorities & Health Canada)	24.9	24.6
Lab. & Therapeutic Tech. Services		
Cardiology Technologists (CTABC)	56.9	57.0
Clinical Perfusionists (CSCP)	267.0	263.0
Diagnostic Medical Sonographers (BCUS & ARDMS)	n/a	28.4
Medical Laboratory Technologists (CSLT/CSMLS)	21.6	18.0
Medical Radiation Technologists (BCAMRT)	n/a	32.1
Respiratory Therapists (BCSRT)	74.9	77.6
Medical & Treatment Services		
Chiropractors	31.5	35.7
Emergency Medical Assistants	65.9	63.5
First Responders	37.8	37.6
Naturopathic Physicians	65.9	59.2
Opticians	n/a	46.7
Optometrists	29.9	25.0
Pharmacists	27.1	26.4
Physicians (Directory Active)	52.5	51.8
Podiatrists	91.7	80.2
Nursing Services		
Licensed Practical Nurses	36.8	39.4
Registered Nurses	30.1	29.9
Licensed Graduate Nurses	103.9	100.4
Registered Psychiatric Nurses	125.2	115.3
Nutrition & Dietary Services		
Dietitians & Nutritionists (BCDNA)	53.7	48.2
Nutrition Managers (PSNM & CSNM)	54.6	47.4
Psychological Services		
Counsellors (BCACC)	n/a	60.2
Psychologists	79.4	77.8
Rehabilitation Services		
Aud. & Speech/Lang. Pathologists (BCASLPA)	n/a	35.0
Massage Therapists	61.3	54.9
Occupational Therapists (BCSOT)	62.1	61.9
Physical Therapists (Full & Limited)	34.6	33.9
Prosthetists & Orthotists (CBCPO & CAPO)	130.3	125.7
Hospital Beds³		
Acute Care Beds	28.1	29.6
Extended Care Beds	39.1	43.0
Rehabilitation Beds	344.9	435.9
TOTAL BEDS	28.4	30.6
Community Pharmacies		
	20.9	16.7

¹ Coefficient of variation = (standard deviation / mean) x 100. Calculations are based on personnel per 10,000 population in each Health Region.

² These coefficients differ from the 1995 coefficients appearing in *ROLLCALL 95* and are not comparable to the 1995 coefficients appearing in *ROLLCALL 95*.

³ Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.
n/a - indicates that the 1995 data is not comparable to the 1997 data due to varying methods of data collection.

Table 9
Health Regions in British Columbia
Ranked by Population and Approved Hospital Bed Capacity
1997

Health Region	Rank in Population	Rank in Hospital Bed Capacity		
		Acute Care Beds	Extended Care Beds	Total
Vancouver	1	1	1	1
South Fraser Valley	2	3	3	3
Capital	3	2	2	2
Simon Fraser	4	4	5	4
Central Vancouver Island	5	6	8	7
Fraser Valley	6	7	6	6
South Okanagan-Similkameen	7	5	4	5
Burnaby	8	12 *	7	8
North Shore	9	9	9	9
Richmond	10	17	13	13
Thompson	11	8	11	10
Northern Interior	12	10	18	15
Upper Island/Central Coast	13	15 *	14	14
North Okanagan	14	11	10	11
North West	15	12 *	19	17
West Kootenay-Boundary	16	14	12	12
East Kootenay	17	15 *	16	16
Coast Garibaldi	18	20	15	18
Cariboo	19	19	17	20
Peace Liard	20	18	20	19

* Indicates a tie in the number of acute care beds.

distribution, while those regions with lesser populations tend to distribute in the bottom half, as is consistent with their relative sizes. These numbers, of course, cannot be examined further without reference to other factors which may affect rated hospital bed capacity, such as proximity to other health regions with more extensive human and institutional resources, geographical isolation, and the demographic mix of the regional population, among others.

II. CHAPTER SUMMARY

In Part I of this Introduction we discussed the provincial distribution of health personnel according to various methods of comparison. In Part II, we wish to examine more closely the particular information recorded in the chapters for selected groupings of health personnel. We include in our discussions references to the "average annual rates of change relative to population" which are synonymous with the "average annual rates of change in ratio" referred to in Part I of this Introduction (see section (c)).

(a) Dental Personnel

While the numbers of dentists, certified dental assistants (CDA's), and dental hygienists all grew relative to the growth in population between 1993 and 1995, only the dentists and dental hygienists continued to increase relative to the population growth between 1995 and 1997 (average annual rate of change for dentists was 1.57; for dental hygienists 3.25). The overall number of certified dental assistants dropped from 4810 to 4803 owing to a sharp decrease in the number of non-practising registrants (from 624 to 388), which was not compensated for by the increase in the number of active registrants (from 4186 in 1995 to 4415 in 1997).

Birthdate information for CDA's is now virtually complete; only 3 members are now without age information. Once again, the additional data have changed the age distribution; while in 1993 it appeared that 81.46% of CDA's with known ages were under thirty-five and in 1995 only 64.31% were, now in 1997, only 52.22% are. In 1995, 48.33% of dental hygienists were under thirty-five, and in 1997, 46.08%, while only 22.17% of dentists were in that age group in 1995, and there are even fewer in 1997 (21.76%). The proportion of dentists older than 55 increased from 16.25% in 1995 to 17.59% in 1997, but has dropped for dental hygienists from 1.29% in 1995 to 1.16% in 1997 and has increased for CDA's from 0.69% in 1995 to 1.04% in 1997.

B.C. was the place of graduation for a slightly increased proportion of new registrant CDA's in 1997 (93.00% versus 92.37% in 1995 and 89.46% in 1993), with 3.68% having graduated from other provinces in Canada, and 3.31% from outside the country. These distributions continue to contrast with those for hygienists and dentists, where 49.78% of new registrant dental hygienists and 36.11% of dentists graduated in B.C., 45.89% of hygienists and 29.62% of dentists came from other provinces in Canada, and another 4.33% of hygienists and 32.41% of dentists came from outside Canada (these last two represent a decrease since 1993 and 1995 for hygienists and a continuing increase for dentists).

(b) Laboratory and Therapeutic Technological Personnel

Medical laboratory technologists (MLT's), cardiology technologists (CT's), medical radiation technologists (MRT's), and respiratory therapists (RT's) are the groups within this category for which

we have the most complete information. All of these are membership associations, not regulatory bodies, so none has mandatory registration, and thus comparisons of numbers across time may reflect changes in membership (the "popularity" of the association) as much as changes in the actual supply of personnel. In addition, the 1997 data for cardiology technologists, diagnostic medical sonographers (DMS's) and medical radiation technologists are not appropriate for comparison with earlier years. With the CT's, a comparison is not useful because the 1997 information dates from the middle of a membership renewal cycle, and thus does not represent the entire membership. With the DMS's, the problem is that the data were collected differently in 1995, and for the MRT's, comparison is inappropriate because previously, no membership category information was available, and a new discipline for certification has been introduced. However, it is possible to discuss available data when they are sufficiently detailed to reward the effort. This is the case with MRT's, where 97.48% of the membership is active and 78.93% work in diagnostic radiography, 9.21% in radiation therapy, 10.20% in nuclear medicine, and 1.66% in magnetic resonance imaging. About thirty per cent are younger than 34, but 18.28% lack age information, and as we have seen with CDA's, missing data may have an important effect on the age distribution. Some 47.45% work full-time, while 28.89% work part-time and 18.36% are casual employees; here again, as 4.64% did not provide information about employment status, the above distribution should be viewed with care.

For medical laboratory technologists (MLT's), the decline in membership that was noted between 1993 and 1995 (the average annual rate of change in the number was -1.90 and relative to population was -4.39) has persisted; indeed, it seems to have accelerated (change in number was -4.72; change in ratio was -6.87). This drop in numbers may correspond to changes in the employment environment. Conversely, the number of respiratory therapists (RT's) grew more quickly than the population of the province (change in ratio was 8.58 in 1997), reversing the trend seen between 1993 and 1995 (change in ratio was -1.41), while not equalling the growth of the 1991-93 period (change in ratio was 16.03).

c) Medical and Treatment Personnel

The groups in this category can be considered under two headings: those for which substantial information is available and those for which little information is available, despite the fact that all require licensure. The latter category includes chiropractors, emergency medical assistants (EMA's), first responders, naturopathic physicians, optometrists, and podiatrists. The former category includes opticians, pharmacists and physicians.

The numbers of chiropractors, first responders, naturopathic physicians (NP's), podiatrists, and optometrists all grew more rapidly than the population between 1995 and 1997. With the exception of the podiatrists, this increasing rate of growth has persisted, and in some cases accelerated, since 1993. NP's grew at an average annual rate of change in ratio of 8.17 in 1995-97, a jump from the 2.13 of 1993-95, optometrists by 1.94, (1.11 in 1993-95), chiropractors by 4.76 (2.46 in 1993-95), and first responders by 8.53 (24.32 in 1993-95). While the total number of EMA's increased from 2754 in 1995 to 2773 in 1997, the rate of change relative to the population was -1.90. Unfortunately, we still have not been able to obtain place of graduation information from the naturopathic physicians, optometrists, chiropractors and podiatrists, so accounting for the sources of these increasing (or decreasing) numbers continues to be impossible.

The number of pharmacists barely grew relative to the population between 1995 and 1997 (0.08). For community pharmacies (where 74.73% of pharmacists work), the average annual rate of change increased from 0.08 in 1993-95 to 0.51 in 1995-97. (See Appendix D.) It is noteworthy that the proportion of pharmacists in 1997 who were not employed in pharmacy has increased again from 11.6% in 1993 to 12.6% in 1995 and to 13.42% in 1997. Female pharmacists now outnumber male

practitioners for all those licensed (only 48.03% are men); among the under-25's, women outnumber men by almost 2 to 1.

Opticians have been added to *ROLLCALL* this year; they were designated as a College under the Health Professions Act in 1996. Some 85.54% are licensed, and of these, 48.48% are dispensing opticians and the rest contact lens fitters. As with the pharmacists, female practitioners outnumber male opticians; only 44.73% are men. The age data are very poor at this point, with 52.84% unknown. Of those opticians whose location can be identified, 81.72% work for an optical company or an optician, 9.97% for an optometrist or an ophthalmologist, and 5.08% in other, optic-related places.

Between 1995 and 1997, the number of directory active physicians continued to grow less rapidly than the provincial population at -0.93 (-0.87 for 1993 to 1995). For non-postgraduate doctors, the decline in growth rate was smaller at -0.69, while postgraduate physicians decreased much more quickly than the population at -3.47. When non-postgraduate physicians are considered by specialty grouping, the rates of change become more complicated. Owing to the absence of MSC specialty information in 1995, RCPSC certification categories were used to describe B.C. physicians. In 1996, both categorisations were available. As a result, we can compare specialty distribution according to both systems, and the rates of change vary according to system and length of observation. Thus there was a decrease in the ratio for general practitioners (-0.89 between 1996 and 1997) according to MSC specialty, the ratio of RCPSC specialty-designated general practitioners to the population decreased at -1.47 between 1995 and 1997. MSC clinical specialists grew relative to the population in the 1996-97 period (3.01), as did RCPSC clinical specialists between 1995 and 1997, albeit more slowly (0.81). MSC laboratory medicine specialists decreased relative to population growth during the last year (-0.12), but RCPSC laboratory medicine specialists declined much more rapidly during the last two years (-2.73). MSC surgical specialists grew very quickly between 1996 and 1997 (2.30), while the RCPSC surgical specialists declined during the 1995-97 period (-0.18).

In 1993, only 22.58% of directory active non-postgraduate physicians were female, and of that proportion, 29.75% were younger than 35. In 1995, the overall proportion of female doctors had risen to 24.64%, of whom even more were younger than 35 (31.92%). By 1997, 25.89% of all directory active physicians were female, and 28.26% were in the two youngest age groups. The proportion of female physicians by specialty varied by type of categorisation, but much less than was seen among the rates of change, so that 29.79% of MSC general practitioners were women, which is very close to the 29.82% of the RCPSC general practitioners who were. Female practitioners thus accounted for 22.12% and 21.99% of MSC and RCPSC clinical specialists, 28.04% and 28.57% of MSC and RCPSC laboratory medicine specialists, and 9.74% and 9.65% of MSC and RCPSC surgical specialists. For the non-postgraduate physicians as a whole, the proportion older than 55 dropped very slightly between 1995 and 1997 (21.58% versus 21.66% versus 23.42% in 1993), and the percentage past retirement age (over 65) continued to decreased (very slowly) to 7.65% from 7.77% in 1995 and 8.33% in 1993.

The proportion of non-postgraduate new registrants educated in B.C. rose between 1995 and 1997 to 18.01% from the low of 13.98% seen in 1993-95. Some 53.74% were educated elsewhere in Canada between 1995 and 1997, as compared with 55.02% in 1993-95 and 48.01% in 1991-93, while 28.25% came from outside Canada in 1995-97, a drop from the 32.91% of 1991-93 and the 31.00% of 1993-95. The net provincial migration shows some gains for health regions outside Vancouver and the Capital, it is noteworthy that of their 1995 complement, the North West and Peace Liard lost 8.46% and 15.38% respectively.

(d) Nursing personnel

The decade-long trend in the decline in absolute number of LPN's persisted between 1995 and 1997 for a current total of 5252 and a change in ratio of -5.86 (the numbers dropped from 6143 in 1991 to 5970 in 1993 and 5673 in 1995). The number of RN's increased very little, so that the average annual rate of change in ratio was -1.93, with less growth among the practising RN's (-2.03) than among the non-practising RN's (-0.84). The absolute number of RPN's also dropped from 2681 in 1995 to 2565 in 1997, thereby accounting for a change in ratio of -4.90, with the burden of the loss falling more heavily among the practising members (change in ratio -5.04) than among the non-practising (-4.00).

Age distributions among nurses were of considerable interest to policy-makers during the last year. A comparison of the proportions of each nursing group aged under 34 showed that the percentage dropped between 1995 and 1997 for all three but that the largest decrease occurred among the RN's. The proportion aged 35 to 54 did not change much over time for any of the three, while the percentage older than 55 increased, especially among the RPN's. Relative to all three nursing groups, the LPN's had the smallest percentage of members under 34, the largest between the ages of 35 and 54, and the smallest aged 55 and older. Across the three groups, the RN's had the largest proportion under 34, while the RPN's had the smallest proportion aged 35 to 54 and the largest over the age of 55 (see Table 10).

Table 10
Age Distributions of LPN's, RN's and RPN's for 1995, 1997

Nursing Group	Year	Number (percent) of Nurses in each Age Group				
		< 35	35-54	55 +	Unknown	Total
LPN's	1995	965 (17.01)	3967 (69.93)	641 (11.30)	100 (1.76)	5673 (100.00)
	1997	871 (16.58)	3644 (69.94)	652 (12.41)	85 (1.62)	5252 (100.00)
RN's	1995	7217 (23.32)	19675 (63.57)	4032 (13.03)	28 (0.09)	30952 (100.00)
	1997	6685 (21.50)	19973 (64.22)	4428 (14.24)	13 (0.04)	31099 (100.00)
RPN's	1995	557 (20.78)	1677 (62.55)	393 (14.66)	54 (2.01)	2681 (100.00)
	1997	490 (19.10)	1606 (62.61)	418 (16.30)	51 (1.99)	2565 (100.00)

Source: ROLLCALL 95 and ROLLCALL 97.

In keeping with the trend established in 1991, numbers for new registrants and reactivations were smaller than those for attrition among the LPN's. Between 1995 and 1997, attrition outpaced new registrations and reactivations among the RPN's as well, and the net gain for RN's amounted to a mere 147 individuals. As well, the number of newly registered RN's continued to decrease from 3165 between 1989 and 1991 to 2766 for 1991-93 to 2520 for 1993-95 and 2275 for 1995-97. Similarly, reactivations decreased further (1531 for 1989-91; 1227 for 1991-93; 748 for 1993-95; 710 for 1995-

97), but attrition continues to fluctuate (2661 for 1989-91; 2875 for 1991-93; 2802 for 1993-95; 2838 for 1995-97).

As the number of new registrant RN's has decreased over time, the drop has been sharpest for RN's whose place of graduation was elsewhere in Canada or outside Canada. Between 1991 and 1993 there were 1439 B.C. graduates (50.12%) among the 2871 new registrants, with 1004 (34.97%) from elsewhere in Canada and 428 (14.91%) from outside Canada. For a total of 2520 new registrants in 1993-95, the figures were 1346 for B.C. graduates (53.41%), 834 for Other Canada (33.10%), and 340 for Other Countries (13.49%). By 1997, the total number of new registrants had decreased to 2275, while the B.C. numbers had dropped slightly to 1303 (57.27%), the Other Canada numbers had decreased considerably to 649 (28.53%), and the outside Canada numbers had declined less abruptly to 322 (14.15%). A similar trend of declining total numbers and a shift towards greater dependence upon B.C. graduates was also seen among the LPN's and RPN's.

(e) Rehabilitation personnel

Owing to the absence of employment address information, we can make no estimate of growth or decline for the audiologists and speech-language pathologists. Once again, MT's showed the greatest increase in numbers relative to the increase in the population for full registrant members (10.03), a rate of growth that has not only outstripped that of the population but that has accelerated in the most recent period (it was 7.87 for 1993-95 and 2.20 for 1991-93). The number of OT's also increased relative to the population at 0.74, down from 5.47 in 1993-95. The total number of full and limited registrant PT's increased from 1964 in 1993 to 2037 in 1995 and 2128 in 1997, accounting for a rate of growth in excess of population growth (0.97). It should be kept in mind that the MT's and PT's are mandatory registration groups, while the OT's are part of a voluntary membership group, though it is believed the British Columbia Society of Occupational Therapists (BCSOT) represents a large proportion of OT's working in the province.

INTRODUCTION TO THE CHAPTERS

The remainder of the report is partitioned into health personnel group-specific chapters. All statistics within each chapter pertain to the specified date of record. The three-dimensional maps of the Health Regions which reflect the actual worker/population ratios which were included in previous editions of *ROLLCALL* are no longer included.

In addition to the thirty-six personnel chapters are a number of appendices which provide provincial population data, hospital bed supply and the number of retail pharmacies.

I. ADMINSTRATIVE SERVICES

HEALTH RECORD PERSONNEL

Definition: Health record personnel

...include Health Record Administrators (HRA) and Health Record Technicians (HRT) who work in a variety of health care facilities such as acute, specialised and long term hospitals, community health centres, industrial clinics, and provincial or federal health care agencies, as well as the health care research field. They contribute to the health information team by: planning information acquisition, maintaining utilisation systems, analysing and technically evaluating health information, and compiling and applying administrative and health statistics.¹

Governing Statute: None

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Health Record Association of British Columbia (HRABC) is voluntary.

Date of Record: October 1995 and February 1998.

Source of Data: Health Record Association of British Columbia (HRABC).

Preparation and Updating:

The tables, derived solely from the membership list provided by the HRABC, include *active*, *affiliate*, and *inactive* members who reported a British Columbia address at the date of record. Data presented in the tables are based on home address for the majority of health record personnel. Precise percentages of home versus employment or other address are not known. The February 1998 data were obtained during a membership renewal cycle and may not accurately reflect membership at that time. Comparisons with 1995 data should therefore be made with caution.

Definition of Terms:

1. Membership Status

Tables 1a and 1b present the number and number per 10,000 population of health record personnel in British Columbia based on membership status. Table 1c shows the average annual rates of change in these numbers.

The membership categories used by the HRABC are: ²

(a) *Active*

The Executive Committee may admit to Active membership any person who makes application thereto and who establishes to the satisfaction of the Executive Committee that s/he has successfully completed a health record program recognised by the Canadian Health Record Association (CHRA).

¹ Adapted from information received from the Health Record Association of B.C.

² From the bylaws of the Health Record Association of B.C.

(b) *Affiliate*

The Executive Committee may admit to Affiliate membership any person (excluding a person who qualifies for Active membership) who makes application thereto and who establishes to the satisfaction of the Executive Committee an interest in the objectives of the Society and its advancement. To qualify for Affiliate membership, the person must be:

- (i) engaged in the record department in a hospital or other allied field; or
- (ii) a student enrolled in a health record program that is recognised by the CHRA.

(c) *Inactive*

The Executive Committee may grant Inactive membership, upon request, to members no longer engaged in active work in the health care field in British Columbia. Once an inactive member resumes work, this status longer applies.

(d) *Honorary*

The Executive Committee may admit anyone as an Honorary member of the Society who has rendered exceptional service to the HRABC. Honorary members are excluded from the tables. There were four honorary members at the date of record in 1998.

2. Employment Setting

For the first time, *ROLLCALL 97* reports the employment setting of HRABC members in Table 2. This is reported by health region using the following categories:

- (a) Hospital/Hospital Society/Health Centre;
- (b) Non-Profit Agency/Educational Facility;
- (c) Private Firm/Other;
- (d) Unknown.

3. Employment Position

Also for the first time, *ROLLCALL 97* reports the employment position of HRABC members in Table 3 using the following categories:

- (a) Director/Assistant Director;
- (b) Manager/Assistant Manager;
- (c) Department Head/Coordinator;
- (d) Health Record Administrator;
- (e) Analyst/Health Record Technician/Technologist;
- (f) Clerk/Coder;
- (g) Other;
- (h) Unknown.

Table 1a
Health Record Personnel (HRABC Members)^{1,2} in British Columbia
by Health Region by Membership Status
October 1995³ and February 1998

Health Region	Active		Affiliate		Inactive		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	9	8	0	0	0	2	9	10
2 West Kootenay - Boundary	13	12	1	1	1	1	15	14
3 North Okanagan	13	9	0	0	1	1	14	10
4 South Okanagan - Similkameen	20	15	0	1	0	2	20	18
5 Thompson	16	11	0	1	1	1	17	13
6 Fraser Valley	10	13	0	0	2	0	12	13
7 South Fraser Valley	34	39	9	10	3	2	46	51
8 Simon Fraser	46	46	12	10	2	4	60	60
9 Coast Garibaldi	8	8	0	0	2	2	10	10
10 Central Vancouver Island	18	17	0	0	0	1	18	18
11 Upper Island/Central Coast	8	6	0	0	0	0	8	6
12 Cariboo	5	6	1	0	0	1	6	7
13 North West	8	9	0	0	0	1	8	10
14 Peace Liard	4	3	0	0	1	1	5	4
15 Northern Interior	14	8	0	0	1	1	15	9
16 Vancouver	40	41	5	5	2	0	47	46
17 Burnaby	28	18	3	4	5	5	36	27
18 North Shore	15	10	2	3	3	1	20	14
19 Richmond	15	15	0	2	0	0	15	17
20 Capital	26	23	1	1	3	3	30	27
TOTAL	350	317	34	38	27	29	411	384

¹ Membership in the Health Record Association of B.C. (HRABC) is voluntary.

² Excludes 1 HRP with unknown location in 1998.

³ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Health Record Personnel (HRABC Members)^{1,2} in British Columbia
per 10,000 Population by Health Region by Membership Status
October 1995 and February 1998

Health Region	Active		Affiliate		Inactive		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	1.17	1.00	0.00	0.00	0.00	0.25	1.17	1.26
2 West Kootenay - Boundary	1.63	1.47	0.13	0.12	0.13	0.12	1.88	1.72
3 North Okanagan	1.18	0.78	0.00	0.00	0.09	0.09	1.27	0.86
4 South Okanagan - Similkameen	0.93	0.67	0.00	0.04	0.00	0.09	0.93	0.80
5 Thompson	1.28	0.83	0.00	0.08	0.08	0.08	1.36	0.99
6 Fraser Valley	0.45	0.56	0.00	0.00	0.09	0.00	0.54	0.56
7 South Fraser Valley	0.65	0.71	0.17	0.18	0.06	0.04	0.88	0.93
8 Simon Fraser	1.59	1.50	0.41	0.33	0.07	0.13	2.07	1.96
9 Coast Garibaldi	1.14	1.06	0.00	0.00	0.29	0.27	1.43	1.33
10 Central Vancouver Island	0.79	0.72	0.00	0.00	0.00	0.04	0.79	0.76
11 Upper Island/Central Coast	0.70	0.50	0.00	0.00	0.00	0.00	0.70	0.50
12 Cariboo	0.71	0.80	0.14	0.00	0.00	0.13	0.86	0.94
13 North West	0.91	0.99	0.00	0.00	0.00	0.11	0.91	1.10
14 Peace Liard	0.64	0.46	0.00	0.00	0.16	0.15	0.80	0.61
15 Northern Interior	1.12	0.61	0.00	0.00	0.08	0.08	1.20	0.69
16 Vancouver	0.76	0.74	0.09	0.09	0.04	0.00	0.89	0.83
17 Burnaby	1.54	0.96	0.17	0.21	0.28	0.27	1.98	1.44
18 North Shore	0.87	0.57	0.12	0.17	0.17	0.06	1.16	0.79
19 Richmond	1.01	0.96	0.00	0.13	0.00	0.00	1.01	1.08
20 Capital	0.80	0.69	0.03	0.03	0.09	0.09	0.92	0.81
TOTAL	0.93	0.81	0.09	0.10	0.07	0.07	1.09	0.98

¹ Membership in the Health Record Association of B.C. (HRABC) is voluntary.

² Excludes 1 HRP with unknown location in 1998.

Table 1c
Average Annual Rate of Change¹: Health Record Personnel (HRABC Members)^{2,3}
in British Columbia by Health Region by Membership Status
October 1995 to February 1998

Health Region	Active		Affiliate		Inactive		Total	
	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵
1 East Kootenay	*	*	*	*	*	*	*	*
2 West Kootenay - Boundary	-3.37	-4.30	*	*	*	*	-2.91	-3.84
3 North Okanagan	-14.58	-16.25	*	*	*	*	-13.43	-15.13
4 South Okanagan - Similkameen	-11.60	-13.13	*	*	*	*	-4.42	-6.07
5 Thompson	-14.84	-16.67	*	*	*	*	-10.86	-12.78
6 Fraser Valley	11.90	9.62	*	*	*	*	3.49	1.38
7 South Fraser Valley	6.06	3.63	*	*	*	*	4.52	2.13
8 Simon Fraser	0.00	-2.43	-7.52	-9.76	*	*	0.00	-2.43
9 Coast Garibaldi	*	*	*	*	*	*	0.00	-3.08
10 Central Vancouver Island	-2.42	-4.24	*	*	*	*	0.00	-1.87
11 Upper Island/Central Coast	*	*	*	*	*	*	*	*
12 Cariboo	*	*	*	*	*	*	*	*
13 North West	*	*	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*	*	*
15 Northern Interior	-21.32	-22.67	*	*	*	*	-19.66	-21.03
16 Vancouver	1.06	-0.85	*	*	*	*	-0.92	-2.79
17 Burnaby	-17.25	-18.40	*	*	*	*	-11.60	-12.83
18 North Shore	-15.95	-16.77	*	*	*	*	-14.18	-15.02
19 Richmond	0.00	-2.52	*	*	*	*	5.51	2.85
20 Capital	-5.12	-5.82	*	*	*	*	-4.42	-5.12
TOTAL	-4.16	-5.93	4.88	2.94	3.11	1.20	-2.87	-4.67

¹ A 28 month rate of change has been adjusted to an average annual figure.

² Membership in the Health Record Association of B.C. (HRABC) is voluntary.

³ Excludes 1 HRP with unknown location in 1998.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Health Record Personnel (HRABC Members)^{1,2,3} in British Columbia
by Health Region by Employment Setting
February 1998

Health Region	Hospital/ Hospital Society/ Health Centre	Non-Profit Agency/ Educational Facility	Private Firm/ Other ⁴	Unknown	Total
1 East Kootenay	8	0	0	0	8
2 West Kootenay - Boundary	12	0	0	1	13
3 North Okanagan	9	0	0	0	9
4 South Okanagan - Similkameen	15	0	0	1	16
5 Thompson	9	0	0	3	12
6 Fraser Valley	13	0	0	0	13
7 South Fraser Valley	33	5	1	10	49
8 Simon Fraser	42	1	2	11	56
9 Coast Garibaldi	8	0	0	0	8
10 Central Vancouver Island	17	0	0	0	17
11 Upper Island/Central Coast	6	0	0	0	6
12 Cariboo	6	0	0	0	6
13 North West	9	0	0	0	9
14 Peace Liard	3	0	0	0	3
15 Northern Interior	8	0	0	0	8
16 Vancouver	34	5	0	7	46
17 Burnaby	16	3	0	3	22
18 North Shore	9	1	0	3	13
19 Richmond	13	2	0	2	17
20 Capital	24	0	0	0	24
TOTAL	294	17	3	41	355

¹ Membership in the Health Record Association of B.C. (HRABC) is voluntary.

² Excludes 1 HRP with unknown location in 1998.

³ Excludes 29 Inactive HRP's.

⁴ Includes 2 HRP's whose employment setting is a "Private Firm" and 1 HRP who listed "Student".

Table 3
Health Record Personnel (HRABC Members)^{1,2,3} in British Columbia
by Health Region by Employment Position
February 1998

Health Region	Director/ Ass't Director	Manager/ Ass't Manager	Department Head/ Coordinator	Health Record Administrator	Analyst/ Health Record Technician/ Technologist	Clerk/Coder	Other ⁴	Unknown	Total
1 East Kootenay	4	0	0	1	2	0	1	0	8
2 West Kootenay - Boundary	5	0	1	3	3	0	0	1	13
3 North Okanagan	1	1	2	1	4	0	0	0	9
4 South Okanagan - Similkameen	6	0	1	4	2	1	0	2	16
5 Thompson	2	1	1	1	2	2	0	3	12
6 Fraser Valley	3	0	2	2	5	1	0	0	13
7 South Fraser Valley	1	4	2	11	17	1	9	4	49
8 Simon Fraser	1	9	6	12	13	1	10	4	56
9 Coast Garibaldi	0	2	0	2	4	0	0	0	8
10 Central Vancouver Island	0	6	0	2	6	3	0	0	17
11 Upper Island/Central Coast	2	0	0	2	1	0	0	1	6
12 Cariboo	0	1	1	0	3	1	0	0	6
13 North West	1	3	0	1	3	1	0	0	9
14 Peace Liard	1	1	0	0	0	0	1	0	3
15 Northern Interior	1	0	2	1	0	1	0	3	8
16 Vancouver	4	2	4	13	13	1	6	3	46
17 Burnaby	1	1	2	9	5	0	2	2	22
18 North Shore	1	1	0	3	1	1	1	5	13
19 Richmond	0	3	4	1	6	0	1	2	17
20 Capital	1	3	3	11	4	2	0	0	24
TOTAL	35	38	31	80	94	16	31	30	355

¹ Membership in the Health Record Association of B.C. (HRABC) is voluntary.

² Excludes 1 HRP with unknown location in 1998.

³ Excludes 29 Inactive HRP's.

⁴ Includes 22 HRP's who indicated "Student" as their employment position, 1 who indicated "Client Services Representative", 1 who indicated "Health Info. Pro.", 1 who indicated "Health Records/Accounts Receivable", 1 who indicated "Faculty", 1 who indicated "Research Assistant", 1 who indicated "ROI", 1 who indicated "Sole Charge", 1 who indicated "Self-employed" and 1 who indicated "Unemployed".

HEALTH SERVICES EXECUTIVES

Definition: A health services executive

...plans, organises, directs and controls, through middle managers, institutions or organisations that deliver health or community services.

Health services executives perform some or all of the following duties:

- (a) establish objectives for the institution and formulate or approve policies and programs;
- (b) authorise and organise the establishment of major departments and associated senior staff positions;
- (c) allocate funds to implement an organisation's policies and programs; establish financial and administrative controls; formulate and approve promotion campaigns; and approve overall personnel planning;
- (d) select or approve the selection of middle managers, directors or other executive staff;
- (e) co-ordinate the work of regions, divisions or departments;
- (f) represent the institution or delegate representatives to act on behalf of the institution in negotiations or other official functions.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Canadian College of Health Service Executives, the Health Administrators' Association of British Columbia, and the American College of Healthcare Executives is voluntary.

Dates of Record: October 1997 (American College of Healthcare Executives), December 1997 (Health Administrators' Association of British Columbia) and June 1998 (Canadian College of Health Service Executives).

Sources of Data: The Canadian College of Health Service Executives (CCHSE), the Health Administrators' Association of British Columbia (HAABC), and the American College of Healthcare Executives (ACHE). It is possible to have membership in more than one of the professional groups, so the lists were merged and edited to avoid double counting.

Preparation and Updating:

Only one table is presented, derived from the membership lists supplied by the CCHSE, the HAABC and the ACHE. In 1995, data contained in a designated administrator list supplied by the Ministry of Health was also included in the table, but no data were collected from the Ministry of Health in 1997. Table 1 includes health services executives who reported a British Columbia address at the date of record. Data presented are based on employment address for the majority of health services executives. Precise percentages of home versus employment or other address are not known. Comparison with 1995 figures is of limited value and has not been presented.

¹ Adapted from *National Occupational Classification 1992*, Major Group 00, No. 0014, Ottawa: Employment and Immigration Canada.

The members in the categories defined on the following pages have been included in the table. Excluded from the table are student, retired, life, inactive and other members of the CCHSE, HAABC or ACHE who are not considered to be part of the work force.

Definition of Terms:

1. Associate and Certified Membership in CCHSE ²

(a) Associate

The Associate Membership Category is open to individuals in health-service related organizations who hold a minimum of a baccalaureate degree or equivalent and who are employed in:

- (i) a staff to senior management position;
- (ii) a consulting position or;
- (iii) hold an academic appointment.

(b) Certified

Individuals advance to the Certified Membership Category upon successful completion of the College's Certification Program.

2. Active, Associate, Provisional and Life Membership in the HAABC ³

(a) Active

An Active member must be a graduate of an approved course in health or business administration or a combination of an approved course and appropriate experience, and must hold either a position of senior administrative responsibility in a health care organisation or a consultative position in health care administration.

(b) Associate

An Associate member is a person who meets all the Active membership criteria except either the appropriate educational qualifications or a position of senior administrative responsibility, or is a person who has been an Active member of the Association and has resigned while in good standing, who is no longer engaged in the field of health administration in this province.

(c) Provisional

A Provisional member must be actively engaged in the field of health administration as well as working toward the educational qualifications necessary to become an Active member. There were no provisional members included in 1997.

(d) Life

A Life member has been an active member of the Association for a minimum of 10 years and whom the Association wishes to honour for work in the Association and/or in the field of health administration.

² From information provided by the Canadian College of Health Care Executives.

³ From information provided by the Health Administrators' Association of British Columbia.

3. Associate, Diplomate and Fellowship Membership in ACHE ⁴

(a) *Associate*

Applicants are admitted to the College as Associates and remain in that category for an indefinite period. To advance to Diplomate status, Associates must meet criteria which include:

- (i) participation and leadership in health care affairs;
- (ii) personal program of continuing professional education;
- (iii) successful completion of a Board of Governors' Examination.

(b) *Diplomate*

Diplomate status is approved provided the Associate has an appropriate combination of post-secondary education and employment experience in an eligible health services administrative, management or education position, and passes both a written and an oral examination.

(c) *Fellowship*

Following five years in Diplomate, an affiliate may advance to Fellowship after meeting criteria which include:

- (i) employment in an eligible health care management position;
- (ii) participation and leadership in health care and in the community;
- (iii) an approved level of continuing education;
- (iv) completion of a Fellowship project.

⁴ From information provided by the American College of Healthcare Executives.

Table 1
Health Services Executives (Members)¹ in British Columbia
by Health Region
1997/1998²

Health Region	Number	Number per 10,000 Population
1 East Kootenay	12	1.51
2 West Kootenay - Boundary	15	1.84
3 North Okanagan	11	0.95
4 South Okanagan - Similkameen	14	0.62
5 Thompson	15	1.14
6 Fraser Valley	17	0.73
7 South Fraser Valley	31	0.56
8 Simon Fraser	26	0.85
9 Coast Garibaldi	8	1.06
10 Central Vancouver Island	14	0.59
11 Upper Island/Central Coast	9	0.75
12 Cariboo	5	0.67
13 North West	13	1.43
14 Peace Liard	10	1.53
15 Northern Interior	7	0.54
16 Vancouver	124	2.25
17 Burnaby	22	1.17
18 North Shore	16	0.91
19 Richmond	11	0.70
20 Capital	58	1.75
TOTAL	438	1.12

¹ Data for this table are derived from membership lists supplied by the Canadian College of Health Service Executives (CCHSE), the Health Administrators' Association of B.C. (HAABC), and the American College of Healthcare Executives (ACHE). Membership in the CCHSE, HAABC and ACHE is voluntary.

² The dates of record vary widely on the multiple sources of data, please see the text for details.

II. DENTAL SERVICES

CERTIFIED DENTAL ASSISTANTS

Definition: A certified dental assistant (dental auxiliary - level II)

...may be delegated the following duties and procedures under the personal supervision of a duly licensed member of the College of Dental Surgeons of British Columbia:

- (a) those duties or procedures which a dental assistant (dental auxiliary - level I) may perform;¹
- (b) polishing clinical crowns of teeth with rubber cup or brush and polishing pastes;
- (c) applying topical anticariogenic agents;
- (d) taking study model impressions;
- (e) applying fissure sealants;
- (f) evaluating dietary habits and providing nutritional counselling as it pertains to dentistry;
- (g) providing instruction in the use and maintenance of partial and complete dentures and other appliances;
- (h) removing sutures;
- (i) placing and removing matrices and wedges;
- (j) performing first aid procedures;
- (k) applying desensitising agents;
- (l) removing periodontal dressings;
- (m) performing pulp vitality tests using electric pulp tester and thermal pulp tester;
- (n) taking simple face-bow transfer;
- (o) acid etching prepared cavities;
- (p) applying non-invasive identification discs
- (q) other procedures that the general examination committee may authorise while the certified dental assistant is participating in courses of study and training approved by the general examination committee, and subject to the requirements of that committee with respect thereto;
- (r) applying treatment liners in teeth without pulpal involvement;
- (s) removing retraction cord.²

On successful completion of the specific orthodontic training module concerned, a certified dental assistant may also be delegated the following duties and procedures under the personal supervision of a licensed member:

- (a) instructing in the placement and care of removable orthodontic appliances;
- (b) tying-in arch wires that a dentist has fitted;
- (c) removing orthodontic arch wire;
- (d) removing excess cement or bonding material by means of hand instruments or ultrasonic hand instruments following banding/bonding and debanding/debonding procedures;
- (e) fitting orthodontic bands prior to assessment by a member;
- (f) taking impressions for the fabrication of orthodontic appliances;
- (g) fitting space maintainers prior to assessment by a member;
- (h) removing orthodontic bands and bonded attachments by means of hand instruments;

¹ *Regulations of The College of Dental Surgeons of British Columbia*, Auxiliary Bodies, revised May 1995, Article 10.16. See also *National Occupational Classification 1992*, Major Group 34, No. 3411, Ottawa: Employment and Immigration Canada.

² *Ibid.*, Article 10.17.

- (i) preparing teeth for direct bonding of attachments;
- (j) applying wax or other material to offending components or removing offending components;
- (k) placing and removing orthodontic separators;
- (l) fitting headgear prior to assessment by a member;
- (m) these duties within the Prosthodontic Module:
 - (i) fabricating provisional restorations intraorally;
 - (ii) trying-in provisional restorations and adjusting occlusion outside of the mouth;
 - (iii) removing provisional cement;
 - (iv) removing provisional restorations;
 - (v) temporary cementation of provisional restorations prior to assessment by a member.³

Enabling Statute: Dentists Act, R.S.B.C. 1996, Chapter 94; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Dental Surgeons of British Columbia (CDSBC). In order to practise as a certified dental assistant in British Columbia, it is necessary to be registered by the CDSBC and to hold a valid licence.

Date of Record: April 1997 and December 1997.

Source of Data: College of Dental Surgeons of British Columbia (CDSBC).

Preparation and Updating:

The tables, prepared from registration data maintained by the CDSBC, include certified dental assistants who were British Columbia residents at the date of record. Data presented in the tables are based on home address for the majority of certified dental assistants. Precise percentages of home versus employment or other address are not known.

Definition of Terms:

1. Registration Status

Tables 1a and 1b report the number and number per 10,000 population of certified dental assistants by registration status in British Columbia. Table 1c shows the average annual rates of change in these numbers. CDA's can now register with the CDSBC as either *active* or *non-practising* on an annual basis. Because of the introduction of new registration categories in 1996, comparable data are not available for 1995, so data from *ROLLCALL UPDATE 96* are presented for comparison.

2. Age and Sex

Age and sex information on certified dental assistants, derived from CDSBC registration information, is shown in Table 2. Age information in the table is grouped according to the standard age categories developed and used by Statistics Canada.

³ *Regulations*, op. cit., revised April 1996, Article 10.19.

3. Analysis of Change

Table 3 illustrates the sources of change which affected the supply of certified dental assistants from April 1997 to December 1997.

New registrants include CDA's who were registered as of December 1997 and who registered with the CDSBC *for the first time* subsequent to April 1997. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada, or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent CDA's who were not registered in British Columbia in April 1997, but were registered in the province in December 1997, and whose date of initial registration was before April 1997. Also included as reactivations are CDA's who reported out-of-province addresses in April 1997, but who reported British Columbia addresses in December 1997.

Attrition describes CDA's who were included in the April 1997 population but who, because of death, retirement, suspension, out-of-province relocation, or non-renewal of registration, were not included in the December 1997 total.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of CDA's between different Health Regions. The net migration total is therefore zero.

Table 1a
Certified Dental Assistants in British Columbia
by Health Region by Registration Status
April 1997^{1,2,3} and December 1997

Health Region	Active		Non-Practising		Total	
	Apr 97	Dec 97	Apr 97	Dec 97	Apr 97	Dec 97
1 East Kootenay	78	86	18	15	96	101
2 West Kootenay - Boundary	94	96	21	11	115	107
3 North Okanagan	130	133	17	15	147	148
4 South Okanagan - Similkameen	259	275	50	39	309	314
5 Thompson	149	156	12	10	161	166
6 Fraser Valley	292	299	56	39	348	338
7 South Fraser Valley	614	657	75	43	689	700
8 Simon Fraser	437	462	39	20	476	482
9 Coast Garibaldi	70	71	10	7	80	78
10 Central Vancouver Island	308	343	67	35	375	378
11 Upper Island/Central Coast	165	173	27	13	192	186
12 Cariboo	64	68	19	15	83	83
13 North West	88	93	10	8	98	101
14 Peace Liard	56	53	7	6	63	59
15 Northern Interior	169	179	44	28	213	207
16 Vancouver	362	375	31	16	393	391
17 Burnaby	149	161	20	7	169	168
18 North Shore	151	159	18	13	169	172
19 Richmond	156	169	14	5	170	174
20 Capital	395	407	69	43	464	450
TOTAL	4,186	4,415	624	388	4,810	4,803

¹ Due to changes in the registration categories for CDA's which occurred in 1996, comparable 1995 data are not available. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison.

² The April 1997 numbers for some regions may differ slightly from those published in *ROLLCALL UPDATE 96* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

³ In addition, 1 CDA that was excluded from the April 1997 count in *ROLLCALL UPDATE 96* because of unknown location has been included in the April 1997 count in *ROLLCALL 97*.

Table 1b
Certified Dental Assistants in British Columbia
per 10,000 Population by Health Region by Registration Status
April 1997¹ and December 1997

Health Region	Active		Non-Practising		Total	
	Apr 97	Dec 97	Apr 97	Dec 97	Apr 97	Dec 97
1 East Kootenay	9.97	10.80	2.30	1.88	12.27	12.69
2 West Kootenay - Boundary	11.63	11.79	2.60	1.35	14.23	13.14
3 North Okanagan	11.51	11.50	1.50	1.30	13.01	12.80
4 South Okanagan - Similkameen	11.84	12.27	2.29	1.74	14.12	14.01
5 Thompson	11.55	11.82	0.93	0.76	12.48	12.58
6 Fraser Valley	12.74	12.79	2.44	1.67	15.19	14.45
7 South Fraser Valley	11.43	11.94	1.40	0.78	12.82	12.72
8 Simon Fraser	14.60	15.07	1.30	0.65	15.90	15.73
9 Coast Garibaldi	9.68	9.43	1.38	0.93	11.07	10.36
10 Central Vancouver Island	13.32	14.44	2.90	1.47	16.22	15.92
11 Upper Island/Central Coast	14.07	14.41	2.30	1.08	16.37	15.49
12 Cariboo	8.85	9.09	2.63	2.01	11.48	11.10
13 North West	9.86	10.25	1.12	0.88	10.98	11.13
14 Peace Liard	8.75	8.13	1.09	0.92	9.84	9.05
15 Northern Interior	13.24	13.74	3.45	2.15	16.68	15.89
16 Vancouver	6.69	6.80	0.57	0.29	7.26	7.09
17 Burnaby	8.04	8.59	1.08	0.37	9.12	8.96
18 North Shore	8.63	9.00	1.03	0.74	9.66	9.73
19 Richmond	10.17	10.76	0.91	0.32	11.08	11.08
20 Capital	12.01	12.26	2.10	1.30	14.11	13.55
TOTAL	10.89	11.26	1.62	0.99	12.51	12.25

¹ Due to changes in the registration categories for CDA's which occurred in 1996, comparable 1995 data are not available.
Hence, *ROLLCALL UPDATE 96* data are presented here for comparison.

Table 1c
Average Annual Rate of Change¹: Certified Dental Assistants in British Columbia
by Health Region by Registration Status
April 1997² to December 1997

Health Region	Active		Non-Practising		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	15.77	12.86	-23.93	-25.84	7.91	5.19
2 West Kootenay - Boundary	3.21	2.02	-62.09	-62.53	-10.25	-11.28
3 North Okanagan	3.48	-0.06	-17.12	-19.96	1.02	-2.44
4 South Okanagan - Similkameen	9.41	5.52	-31.11	-33.56	2.44	-1.21
5 Thompson	7.13	3.59	-23.93	-26.44	4.69	1.23
6 Fraser Valley	3.62	0.52	-41.88	-43.62	-4.28	-7.14
7 South Fraser Valley	10.69	6.81	-56.59	-58.11	2.40	-1.18
8 Simon Fraser	8.70	4.97	-63.28	-64.54	1.90	-1.60
9 Coast Garibaldi	2.15	-3.86	-41.43	-44.88	-3.73	-9.39
10 Central Vancouver Island	17.52	12.91	-62.24	-63.72	1.20	-2.77
11 Upper Island/Central Coast	7.36	3.65	-66.59	-67.75	-4.65	-7.95
12 Cariboo	9.52	4.09	-29.85	-33.33	0.00	-4.96
13 North West	8.64	5.90	-28.45	-30.25	4.63	1.98
14 Peace Liard	-7.93	-10.35	*	*	-9.37	-11.76
15 Northern Interior	9.01	5.79	-49.24	-50.73	-4.20	-7.02
16 Vancouver	5.43	2.58	-62.92	-63.92	-0.76	-3.45
17 Burnaby	12.32	10.48	-79.29	-79.63	-0.89	-2.51
18 North Shore	8.05	6.53	-38.62	-39.49	2.67	1.23
19 Richmond	12.76	8.81	-78.66	-79.40	3.55	-0.08
20 Capital	4.59	3.09	-50.80	-51.51	-4.49	-5.86
TOTAL	8.32	5.11	-50.97	-52.42	-0.22	-3.18

¹ An 8 month rate of change has been adjusted to an average annual figure.

² Due to changes in the registration categories for CDA's which occurred in 1996, comparable 1995 data are not available. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

Table 2
Certified Dental Assistants¹ in British Columbia
by Health Region by Age and Sex²
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	14	1	46	0	33	0	6	0	1	0	0	0	0	1	100	101
2 West Kootenay - Boundary	0	13	1	45	0	36	0	10	0	2	0	0	0	0	1	106	107
3 North Okanagan	0	9	0	54	0	60	0	21	0	4	0	0	0	0	0	148	148
4 South Okanagan - Similkameen	0	30	0	123	0	124	0	31	0	5	0	1	0	0	0	314	314
5 Thompson	0	16	0	64	0	67	0	19	0	0	0	0	0	0	0	166	166
6 Fraser Valley	0	57	1	154	0	100	0	23	0	3	0	0	0	0	1	337	338
7 South Fraser Valley	0	66	1	291	0	257	1	80	0	3	0	0	0	1	2	698	700
8 Simon Fraser	0	33	0	217	0	182	0	42	0	7	0	0	0	1	0	482	482
9 Coast Garibaldi	0	2	0	27	0	40	0	6	0	3	0	0	0	0	0	78	78
10 Central Vancouver Island	0	46	1	149	0	140	0	42	0	0	0	0	0	0	1	377	378
11 Upper Island/Central Coast	0	15	0	56	0	97	0	16	0	1	0	0	0	1	0	186	186
12 Cariboo	0	7	0	40	0	29	0	6	0	1	0	0	0	0	0	83	83
13 North West	0	13	0	35	0	38	0	14	0	1	0	0	0	0	0	101	101
14 Peace Liard	0	7	0	26	0	20	0	6	0	0	0	0	0	0	0	59	59
15 Northern Interior	0	25	0	86	1	73	0	21	0	1	0	0	0	0	1	206	207
16 Vancouver	0	47	1	179	0	115	0	43	0	6	0	0	0	0	1	390	391
17 Burnaby	0	19	0	74	0	55	0	19	0	1	0	0	0	0	0	168	168
18 North Shore	0	10	0	61	0	79	0	19	0	3	0	0	0	0	0	172	172
19 Richmond	0	17	0	68	0	65	0	21	0	3	0	0	0	0	0	174	174
20 Capital	0	52	0	209	0	151	0	34	0	4	0	0	0	0	0	450	450
TOTAL	0	498	6	2,004	1	1,761	1	479	0	49	0	1	0	3	8	4,795	4,803

¹ Includes Active and Non-Practising CDA's.

² There are no CDA's with missing sex information.

Table 3
Analysis of Change in the Number of Certified Dental Assistants¹
in British Columbia by Health Region
April 1997^{2,3,4} to December 1997

Health Region	April 1997	New Registrants ^{5,6} by Place of Graduation				Reactivation ⁷	Attrition ⁸	Net Intra-provincial Migration	December 1997
		B.C.	Other Canada	Other Country	Subtotal				
1 East Kootenay	96	9	1	0	10	0	3	-2	101
2 West Kootenay - Boundary	115	3	0	0	3	0	11	0	107
3 North Okanagan	147	6	0	0	6	3	5	-3	148
4 South Okanagan - Similkameen	309	16	1	0	17	1	16	3	314
5 Thompson	161	5	1	0	6	0	3	2	166
6 Fraser Valley	348	20	0	1	21	0	22	-9	338
7 South Fraser Valley	689	29	1	4	34	0	38	15	700
8 Simon Fraser	476	21	0	0	21	2	22	5	482
9 Coast Garibaldi	80	3	0	0	3	0	4	-1	78
10 Central Vancouver Island	375	26	0	0	26	3	35	9	378
11 Upper Island/Central Coast	192	5	1	0	6	1	10	-3	186
12 Cariboo	83	3	0	0	3	1	5	1	83
13 North West	98	6	1	0	7	0	4	0	101
14 Peace Liard	63	1	1	0	2	0	2	-4	59
15 Northern Interior	213	12	0	0	12	1	22	3	207
16 Vancouver	393	27	0	2	29	1	26	-6	391
17 Burnaby	169	12	0	1	13	0	13	-1	168
18 North Shore	169	11	1	0	12	0	8	-1	172
19 Richmond	170	14	0	1	15	2	8	-5	174
20 Capital	464	24	2	0	26	3	40	-3	450
TOTAL	4,810	253	10	9	272	18	297	0	4,803

¹ Includes Active and Non-Practising CDA's.

² Due to changes in the registration categories for CDA's which occurred in 1996, comparable 1995 data are not available. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison.

³ The April 1997 numbers for some regions may differ slightly from those published in *ROLLCALL UPDATE 96* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

⁴ In addition, 1 CDA that was excluded from the April 1997 count in *ROLLCALL UPDATE 96* because of unknown location has been included in the April 1997 count in *ROLLCALL 97*.

⁵ CDA's who reported B.C. addresses and were registered in December 1997 and whose date of initial registration was after April 1997.

⁶ There are no new registrant CDA's with unknown place of graduation in December 1997.

⁷ CDA's who reported B.C. addresses and were registered in December 1997 but not in April 1997 and who were registered for the first time before April 1997.

⁸ CDA's who reported B.C. addresses and were registered in April 1997 but not in December 1997.

Prepared by:

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DENTAL HYGIENISTS

Definition: A dental hygienist

... assesses the status of teeth and adjacent tissues and provides preventive and therapeutic dental hygiene care for teeth and adjacent tissues. The range of activities for a dental hygienist include:

- (a) clinical therapy;
- (b) health promotion;
- (c) education;
- (d) administration;
- (e) research.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Dental Hygienists of British Columbia (CDHBC). In order to practise as a dental hygienist in British Columbia, it is necessary to be registered by the CDHBC and hold a full or conditional licence. Registered dental hygienists have exclusive use of the title: *dental hygienist*.

Date of Record: April 1996 and December 1997.

Source of Data: College of Dental Hygienists of British Columbia (CDHBC).

Preparation and Updating:

The tables were prepared from registration data maintained by the CDHBC and include dental hygienists who reported a British Columbia address at the date of record. Data presented in the tables are based on home address for the majority of dental hygienists. Precise percentages of home versus employment or other address are not known.

In 1995, employment data on dental hygienists were collected separately with a survey conducted by the Health Human Resources Unit (HHRU). No survey of dental hygienists was conducted this year by the HHRU; data for Table 3 were available from the CDHBC, and Tables 4 and 5 (which appeared in 1995) are not included.

Definition of Terms:

1. Registration Status

Dental hygienists may be *fully licensed*, *conditionally licensed*, or hold *non-practising* status in the CDHBC. Fully and conditionally licensed dental hygienists are those who may legally practice in B.C. The conditional licence category in the tables includes dental public health hygienists and conditionally

¹ Adapted from the regulations of the College of Dental Hygienists of British Columbia, Section 4. See also *National Occupational Classification 1992*, Major Group 32, No. 3222, Ottawa: Employment and Immigration Canada.

licensed hygienists who are qualified to practise as dental hygienists, except that they are not authorised to administer local anaesthesia (formerly dental hygienists *on permit*).

Tables 1a and 1b report the number and number per 10,000 population of dental hygienists who are registered with the CDHBC by registration status on the date of record. Table 1c reports the average annual rates of change in these figures.

2. Age and Sex

Age and sex information for dental hygienists, presented in Table 2, is derived from data maintained by the CDHBC. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 reports the number of dental hygienists based on their employment status as noted on the CDHBC annual licence renewal form. The categories used are:

- | | |
|--|------------------------------|
| (a) Employed in Dental Hygiene; | (c) Employed in Other Field; |
| (i) Full-Time | (d) Not Employed; |
| (ii) Part-Time | (e) Retired; |
| (iii) On Leave | (f) Unknown. |
| (b) Unemployed, and Seeking Work in
Dental Hygiene; | |

4. Analysis of Change

Table 4 illustrates the sources of change which affected the supply of dental hygienists from April 1996 to December 1997.

New registrants include dental hygienists who were registered as of December 1997 and who registered with the CDHBC *for the first time* subsequent to April 1996. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent dental hygienists who were not full or conditionally licensed in British Columbia in April 1996, but were licensed in the province in December 1997, and whose date of initial registration was before April 1996. Also included as reactivations are full or conditionally licensed dental hygienists who reported out-of-province addresses in April 1996, but who reported British Columbia addresses in December 1997.

Attrition describes dental hygienists who were included in the April 1996 supply but who, because of death, retirement, suspension, out-of-province relocation or non-renewal of licence were not included in the December 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of dental hygienists between different Health Regions. The net migration total is therefore zero.

Table 1a
Dental Hygienists¹ in British Columbia
by Health Region by Registration Status
April 1996 and December 1997

Health Region	Full Licence		Conditional Licence		Non-Practising		Total	
	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	23	25	2	1	0	1	25	27
2 West Kootenay - Boundary	21	27	0	2	0	0	21	29
3 North Okanagan	39	40	2	2	0	2	41	44
4 South Okanagan - Similkameen	90	94	1	5	0	2	91	101
5 Thompson	47	52	0	0	1	2	48	54
6 Fraser Valley	63	76	3	3	2	1	68	80
7 South Fraser Valley	165	189	5	4	5	2	175	195
8 Simon Fraser	89	100	7	7	2	0	98	107
9 Coast Garibaldi	27	27	1	0	2	1	30	28
10 Central Vancouver Island	73	82	0	3	2	2	75	87
11 Upper Island/Central Coast	44	48	2	0	1	0	47	48
12 Cariboo	19	28	1	0	1	1	21	29
13 North West	29	30	2	1	0	0	31	31
14 Peace Liard	9	12	0	0	1	0	10	12
15 Northern Interior	58	60	1	1	1	0	60	61
16 Vancouver	217	229	10	12	7	10	234	251
17 Burnaby	45	47	0	1	2	2	47	50
18 North Shore	112	111	4	6	4	5	120	122
19 Richmond	58	69	3	3	2	0	63	72
20 Capital	158	191	3	6	9	9	170	206
TOTAL	1,386	1,537	47	57	42	40	1,475	1,634

¹ Excludes 8 hygienists with unknown location in 1996 and 12 in 1997.

Table 1b
Dental Hygienists¹ in British Columbia
per 10,000 Population by Health Region by Registration Status
April 1996 and December 1997

Health Region	Full Licence		Conditional Licence		Non-Practising		Total	
	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	3.00	3.14	0.26	0.13	0.00	0.13	3.26	3.39
2 West Kootenay - Boundary	2.64	3.32	0.00	0.25	0.00	0.00	2.64	3.56
3 North Okanagan	3.53	3.46	0.18	0.17	0.00	0.17	3.71	3.81
4 South Okanagan - Similkameen	4.18	4.19	0.05	0.22	0.00	0.09	4.23	4.51
5 Thompson	3.75	3.94	0.00	0.00	0.08	0.15	3.83	4.09
6 Fraser Valley	2.83	3.25	0.13	0.13	0.09	0.04	3.05	3.42
7 South Fraser Valley	3.17	3.43	0.10	0.07	0.10	0.04	3.36	3.54
8 Simon Fraser	3.08	3.26	0.24	0.23	0.07	0.00	3.39	3.49
9 Coast Garibaldi	3.86	3.59	0.14	0.00	0.29	0.13	4.29	3.72
10 Central Vancouver Island	3.21	3.45	0.00	0.13	0.09	0.08	3.30	3.66
11 Upper Island/Central Coast	3.83	4.00	0.17	0.00	0.09	0.00	4.09	4.00
12 Cariboo	2.71	3.74	0.14	0.00	0.14	0.13	3.00	3.88
13 North West	3.31	3.31	0.23	0.11	0.00	0.00	3.53	3.42
14 Peace Liard	1.44	1.84	0.00	0.00	0.16	0.00	1.60	1.84
15 Northern Interior	4.64	4.61	0.08	0.08	0.08	0.00	4.80	4.68
16 Vancouver	4.12	4.15	0.19	0.22	0.13	0.18	4.44	4.55
17 Burnaby	2.48	2.51	0.00	0.05	0.11	0.11	2.59	2.67
18 North Shore	6.49	6.28	0.23	0.34	0.23	0.28	6.95	6.90
19 Richmond	3.92	4.39	0.20	0.19	0.14	0.00	4.26	4.58
20 Capital	4.84	5.75	0.09	0.18	0.28	0.27	5.21	6.20
TOTAL	3.69	3.92	0.13	0.15	0.11	0.10	3.93	4.17

¹ Excludes 8 hygienists with unknown location in 1996 and 12 in 1997.

Table 1c
Average Annual Rate of Change¹: Dental Hygienists² in British Columbia
by Health Region by Registration Status
April 1996 to December 1997

Health Region	Full Licence		Conditional Licence		Non-Practising		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	4.88	2.65	*	*	*	*	4.50	2.27
2 West Kootenay - Boundary	15.44	13.97	*	*	*	*	20.25	18.72
3 North Okanagan	1.46	-1.19	*	*	*	*	4.12	1.41
4 South Okanagan - Similkameen	2.52	0.16	*	*	*	*	6.14	3.70
5 Thompson	5.95	2.92	*	*	*	*	6.96	3.90
6 Fraser Valley	11.32	8.30	*	*	*	*	9.73	6.76
7 South Fraser Valley	8.07	4.78	*	*	*	*	6.38	3.14
8 Simon Fraser	6.89	3.44	*	*	*	*	5.15	1.76
9 Coast Garibaldi	0.00	-4.08	*	*	*	*	-3.87	-7.79
10 Central Vancouver Island	6.87	4.22	*	*	*	*	8.85	6.15
11 Upper Island/Central Coast	5.10	2.49	*	*	*	*	1.21	-1.30
12 Cariboo	24.80	20.30	*	*	*	*	20.25	15.91
13 North West	1.96	-0.01	*	*	*	*	0.00	-1.93
14 Peace Liard	*	*	*	*	*	*	10.98	8.24
15 Northern Interior	1.96	-0.36	*	*	*	*	0.95	-1.34
16 Vancouver	3.12	0.53	10.98	8.19	*	*	4.09	1.47
17 Burnaby	2.52	0.61	*	*	*	*	3.60	1.68
18 North Shore	-0.51	-1.81	*	*	*	*	0.95	-0.37
19 Richmond	10.43	6.74	*	*	*	*	7.93	4.32
20 Capital	11.45	10.35	*	*	*	*	11.60	10.51
TOTAL	6.09	3.47	11.65	8.90	-2.75	-5.15	6.02	3.41

¹ A 21 month rate of change has been adjusted to an average annual figure.

² Excludes 8 hygienists with unknown location in 1996 and 12 in 1997.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Dental Hygienists^{1,2} in British Columbia
by Health Region by Age and Sex³
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	1	0	10	1	11	1	2	0	0	0	0	0	1	2	25	27
2 West Kootenay - Boundary	0	3	1	9	2	9	1	3	0	1	0	0	0	0	4	25	29
3 North Okanagan	0	3	0	20	0	14	0	7	0	0	0	0	0	0	0	44	44
4 South Okanagan - Similkameen	0	2	0	41	1	41	0	15	0	1	0	0	0	0	1	100	101
5 Thompson	0	2	1	26	0	18	0	6	0	1	0	0	0	0	1	53	54
6 Fraser Valley	1	2	0	36	1	26	2	10	2	0	0	0	0	0	6	74	80
7 South Fraser Valley	0	7	2	74	0	71	1	38	0	2	0	0	0	0	3	192	195
8 Simon Fraser	0	4	0	50	2	40	1	10	0	0	0	0	0	0	3	104	107
9 Coast Garibaldi	0	0	0	11	0	9	0	6	0	0	0	1	0	1	0	28	28
10 Central Vancouver Island	0	1	2	36	0	33	1	13	0	1	0	0	0	0	3	84	87
11 Upper Island/Central Coast	0	3	0	14	0	23	1	7	0	0	0	0	0	0	1	47	48
12 Cariboo	0	4	1	16	0	5	0	3	0	0	0	0	0	0	1	28	29
13 North West	0	4	0	18	0	8	0	1	0	0	0	0	0	0	0	31	31
14 Peace Liard	0	0	0	9	0	2	0	1	0	0	0	0	0	0	0	12	12
15 Northern Interior	0	6	0	34	1	14	0	6	0	0	0	0	0	0	1	60	61
16 Vancouver	0	11	13	103	3	81	2	35	0	2	0	1	0	0	18	233	251
17 Burnaby	0	3	1	28	1	14	0	3	0	0	0	0	0	0	2	48	50
18 North Shore	0	4	0	30	0	48	0	36	0	4	0	0	0	0	0	122	122
19 Richmond	0	1	1	19	1	28	1	21	0	0	0	0	0	0	3	69	72
20 Capital	0	3	2	80	4	80	2	32	1	1	0	1	0	0	9	197	206
TOTAL	1	64	24	664	17	575	13	255	3	13	0	3	0	2	58	1,576	1,634

¹ Includes Fully Licensed, Conditionally Licensed and Non-Practising hygienists.

² Excludes 12 hygienists with unknown location.

³ There are no hygienists with missing sex information.

Table 3
Dental Hygienists^{1,2} in British Columbia
by Health Region by Employment Status³
December 1997

Health Region	Employed in Dental Hygiene				Unemployed & Seeking Work in	Employed in	Not	Unknown	Total
	Full-Time	Part-Time	On Leave	Subtotal	D. Hygiene	Other Field	Employed		
1 East Kootenay	19	5	0	24	0	0	0	2	26
2 West Kootenay - Boundary	17	6	1	24	0	0	1	4	29
3 North Okanagan	19	16	0	35	1	0	2	4	42
4 South Okanagan - Similkameen	55	30	1	86	1	1	3	8	99
5 Thompson	34	13	2	49	0	0	1	2	52
6 Fraser Valley	46	25	3	74	0	0	0	5	79
7 South Fraser Valley	93	77	9	179	2	1	2	9	193
8 Simon Fraser	60	31	7	98	0	0	0	9	107
9 Coast Garibaldi	13	10	1	24	2	0	1	0	27
10 Central Vancouver Island	45	28	3	76	1	0	1	7	85
11 Upper Island/Central Coast	28	13	3	44	1	1	0	2	48
12 Cariboo	17	6	1	24	2	0	0	2	28
13 North West	24	4	0	28	1	0	0	2	31
14 Peace Liard	7	4	0	11	0	0	0	1	12
15 Northern Interior	37	15	2	54	0	0	0	7	61
16 Vancouver	136	64	4	204	2	6	5	24	241
17 Burnaby	32	11	1	44	2	0	0	2	48
18 North Shore	62	43	5	110	0	1	0	6	117
19 Richmond	33	28	2	63	2	0	1	6	72
20 Capital	123	40	7	170	4	1	2	20	197
TOTAL	900	469	52	1,421	21	11	19	122	1,594

¹ Excludes 12 hygienists with unknown location.

² Excludes 40 hygienists with Non-Practising registration status.

³ The employment status category "Retired" is not shown in the table as there are no hygienists in this category in 1997.

Table 4
Analysis of Change in the Number of Dental Hygienists^{1,2}
in British Columbia by Health Region
April 1996 to December 1997

Health Region	April 1996	New Registrants ^{3,4} by Place of Graduation				Reactivation ⁵	Attrition ⁶	Net Intra- provincial Migration	December 1997
		B.C.	Other Canada	Other Country	Subtotal				
1 East Kootenay	25	1	5	0	6	0	5	0	26
2 West Kootenay - Boundary	21	1	4	0	5	1	1	3	29
3 North Okanagan	41	2	2	0	4	1	4	0	42
4 South Okanagan - Similkameen	91	5	6	1	12	2	11	5	99
5 Thompson	47	3	1	0	4	1	2	2	52
6 Fraser Valley	66	1	8	3	12	1	4	4	79
7 South Fraser Valley	170	16	6	3	25	9	11	0	193
8 Simon Fraser	96	5	12	1	18	3	7	-3	107
9 Coast Garibaldi	28	0	0	1	1	2	2	-2	27
10 Central Vancouver Island	73	8	4	0	12	3	9	6	85
11 Upper Island/Central Coast	46	3	0	0	3	1	2	0	48
12 Cariboo	20	4	2	0	6	0	2	4	28
13 North West	31	3	3	0	6	1	3	-4	31
14 Peace Liard	9	2	0	0	2	0	0	1	12
15 Northern Interior	59	8	0	0	8	0	0	-6	61
16 Vancouver	227	16	26	1	43	5	23	-11	241
17 Burnaby	45	5	2	0	7	2	4	-2	48
18 North Shore	116	5	6	0	11	0	9	-1	117
19 Richmond	61	5	4	0	9	1	3	4	72
20 Capital	161	22	15	0	37	4	5	0	197
TOTAL	1,433	115	106	10	231	37	107	0	1,594

¹ Excludes 8 hygienists with unknown location in 1996 and 12 in 1997.

² Excludes 42 hygienists with Non-Practising registration status in 1996 and 40 in 1997.

³ Dental hygienists who reported B.C. addresses and were full or conditional registrants in December 1997 and whose date of initial registration was after April 1996.

⁴ There are no new registrant hygienists with unknown place of graduation in 1997.

⁵ Dental hygienists who reported B.C. addresses and were full or conditional registrants in December 1997 but not in April 1996 and who were registered for the first time before April 1996.

⁶ Dental hygienists who reported B.C. addresses and were full or conditional registrants in April 1996 but not in December 1997.

DENTAL TECHNICIANS

Definition: A dental technician

...may, if the services can be performed without intraoral procedures or the taking of impressions:

- (a) make, produce, reproduce, construct, furnish, supply, alter or repair a denture, bridge or prosthetic appliance to be used in, on, in connection with, or in the treatment of a human tooth, jaw or associated structure or tissue in accordance with a prescription¹ to perform any of those services;
- (b) make structural repairs to a removable dental prostheses or replace teeth in a denture without a prescription¹;
- (c) supervise other registrants classified as students, temporary registrants and/or assistants in accordance with a supervision ratio specified in the Dental Technician Rules.²

Governing Statute: Health Professions Act; R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Dental Technicians of British Columbia (CDTBC). In order to provide the services of a Dental Technician, Dental Technical Assistant or Dental Technician Student, it is necessary to be registered with the College of Dental Technicians of British Columbia. Registered dental technicians have exclusive use of the titles: *dental technician*, *certified dental technician* and *registered dental technician*.

Date of Record: January 1996 and November 1997.

Source of Data: College of Dental Technicians of British Columbia (CDTBC).

Preparation and Updating:

The following tables present data supplied by the CDTBC for dental technicians who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when employment address is available. In 1996 and 1997, employment address was available for 85% and 91% of dental technicians, respectively. Home address is used for the remainder.

Definition of Terms:

Tables 1a and 1b present the number and number per 10,000 population of dental technicians in British Columbia by registration status. Table 1c shows the average annual rates of change in these numbers for the province as a whole.

¹ "Prescription" refers to a document signed and dated by a dentist or medical practitioner that directs a dental technician to perform a service in accordance with the technician's certificate of registration.

² Adapted from information received from the College of Dental Technicians of British Columbia (CDTBC).

The registration categories now used by the CDTBC are:

(a) *Registered*

A registered dental technician is licensed by the College of Dental Technicians of British Columbia (CDTBC).

(b) *Student*

A student technician is either enrolled or has completed a dental technician training program listed in Schedule A of the Dental Technician Rules, and is registered by the College of Dental Technicians of British Columbia. After 18 months work experience, a student technician is eligible to undertake the certifying exams to become a registered dental technician.

In contrast to earlier editions of *ROLLCALL*, the former CDTBC registration categories of *apprentice*, *temporary* and *non-practising* are no longer available and are therefore not reported here. As a result, the total number of dental technicians shown for January 1996 in these tables is smaller than the total number of dental technicians reported in *ROLLCALL* 95.

Table 1a
Dental Technicians in British Columbia
by Health Region by Registration Status¹
January 1996 and November 1997

Health Region	Registered		Student		Total	
	1996	1997	1996	1997	1996	1997
1 East Kootenay	2	1	0	0	2	1
2 West Kootenay - Boundary	1	4	0	0	1	4
3 North Okanagan	5	4	0	0	5	4
4 South Okanagan - Similkameen	28	33	2	3	30	36
5 Thompson	10	12	0	0	10	12
6 Fraser Valley	19	17	1	0	20	17
7 South Fraser Valley	39	49	3	4	42	53
8 Simon Fraser	29	29	3	0	32	29
9 Coast Garibaldi	4	2	0	0	4	2
10 Central Vancouver Island	12	15	0	1	12	16
11 Upper Island/Central Coast	12	13	0	0	12	13
12 Cariboo	1	1	0	0	1	1
13 North West	3	3	0	0	3	3
14 Peace Liard	1	1	0	0	1	1
15 Northern Interior	7	10	0	0	7	10
16 Vancouver	180	197	22	26	202	223
17 Burnaby	22	19	6	3	28	22
18 North Shore	29	23	4	3	33	26
19 Richmond	27	26	2	2	29	28
20 Capital	43	45	1	2	44	47
TOTAL	474	504	44	44	518	548

¹ The CDTBC has eliminated the registration categories of "Apprentice", "Temporary", and "Non-Practising". As a result, the January 1996 totals will be smaller than those reported in *ROLLCALL 95*.

Table 1b
Dental Technicians in British Columbia
per 10,000 Population by Health Region by Registration Status¹
January 1996 and November 1997

Health Region	Registered		Student		Total	
	1996	1997	1996	1997	1996	1997
1 East Kootenay	0.26	0.13	0.00	0.00	0.26	0.13
2 West Kootenay - Boundary	0.13	0.49	0.00	0.00	0.13	0.49
3 North Okanagan	0.45	0.35	0.00	0.00	0.45	0.35
4 South Okanagan - Similkameen	1.30	1.47	0.09	0.13	1.39	1.61
5 Thompson	0.80	0.91	0.00	0.00	0.80	0.91
6 Fraser Valley	0.85	0.73	0.04	0.00	0.90	0.73
7 South Fraser Valley	0.75	0.89	0.06	0.07	0.81	0.96
8 Simon Fraser	1.00	0.95	0.10	0.00	1.11	0.95
9 Coast Garibaldi	0.57	0.27	0.00	0.00	0.57	0.27
10 Central Vancouver Island	0.53	0.63	0.00	0.04	0.53	0.67
11 Upper Island/Central Coast	1.04	1.08	0.00	0.00	1.04	1.08
12 Cariboo	0.14	0.13	0.00	0.00	0.14	0.13
13 North West	0.34	0.33	0.00	0.00	0.34	0.33
14 Peace Liard	0.16	0.15	0.00	0.00	0.16	0.15
15 Northern Interior	0.56	0.77	0.00	0.00	0.56	0.77
16 Vancouver	3.41	3.57	0.42	0.47	3.83	4.04
17 Burnaby	1.21	1.01	0.33	0.16	1.54	1.17
18 North Shore	1.68	1.30	0.23	0.17	1.91	1.47
19 Richmond	1.82	1.66	0.14	0.13	1.96	1.78
20 Capital	1.32	1.36	0.03	0.06	1.35	1.42
TOTAL	1.26	1.29	0.12	0.11	1.38	1.40

¹ The CDTBC has eliminated the registration categories of "Apprentice", "Temporary", and "Non-Practising".

Table 1c
Average Annual Rate of Change¹: Dental Technicians in British Columbia
by Health Region by Registration Status²
January 1996 to November 1997

Health Region	Registered		Student		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	*	*	*	*	*	*
2 West Kootenay - Boundary	*	*	*	*	*	*
3 North Okanagan	*	*	*	*	*	*
4 South Okanagan - Similkameen	9.38	6.98	*	*	10.46	8.03
5 Thompson	10.46	7.44	*	*	10.46	7.44
6 Fraser Valley	-5.89	-8.32	*	*	-8.48	-10.85
7 South Fraser Valley	13.26	9.97	*	*	13.53	10.23
8 Simon Fraser	0.00	-3.08	*	*	-5.23	-8.15
9 Coast Garibaldi	*	*	*	*	*	*
10 Central Vancouver Island	12.94	10.27	*	*	16.99	14.22
11 Upper Island/Central Coast	4.46	1.99	*	*	4.46	1.99
12 Cariboo	*	*	*	*	*	*
13 North West	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*
15 Northern Interior	*	*	*	*	*	*
16 Vancouver	5.05	2.53	9.54	6.91	5.54	3.01
17 Burnaby	-7.69	-9.32	*	*	-12.33	-13.88
18 North Shore	-11.88	-12.97	*	*	-12.19	-13.29
19 Richmond	-2.04	-5.16	*	*	-1.90	-5.03
20 Capital	2.51	1.55	*	*	3.66	2.69
TOTAL	3.40	0.97	0.00	-2.35	3.12	0.69

¹ A 22 month rate of change has been adjusted to an average annual figure.

² The CDTBC has eliminated the registration categories of "Apprentice", "Temporary", and "Non-Practising".

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

DENTISTS

Definition: A dentist

...diagnoses and treats disorders of the teeth and mouth.

Dentists perform some or all of the following duties:

- (a) examine patients' teeth, gums, and surrounding tissue to diagnose disease, injury, and decay and plan appropriate treatment;
- (b) restore, extract, and replace diseased and decayed teeth;
- (c) perform oral surgery, periodontal surgery, and other treatments;
- (d) clean teeth and instruct patients on oral hygiene;
- (e) design bridgework, fit dentures and provide appliances to correct abnormal positioning of the teeth and jaws, or write fabrication instructions or prescriptions for use by denturists and dental technicians;
- (f) supervise dental hygienists, dental assistants and other staff.¹

Governing Statute: Dentists Act, R.S.B.C. 1996, Chapter 94; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Dental Surgeons of British Columbia (CDSBC). In order to practise as a dentist in British Columbia, it is necessary to be registered by the College, and to hold a valid licence or permit under the Act.

Date of Record: November 1995 and January 1998.

Source of Data: College of Dental Surgeons of British Columbia (CDSBC).

Preparation and Updating:

The tables were prepared from registration data maintained by the CDSBC and include dentists who reported a British Columbia address at the date of record. Data presented in the tables are based on employment address for the majority of dentists. Precise percentages of home versus employment or other address are not known.

Definition of Terms:

1. Registration Status

Dentists may be *licensed*, or hold *temporary* or *non-practising* status in the CDSBC. Licensed dentists are those who may legally practice in B.C. Temporary status may be held for up to one year for the purpose of lecturing or other educational activities in the province; temporary status dentists may not perform dental services for a fee. Non-practising status encompasses dentists who are fully registered with the CDSBC but do not have a licence to practice in this province.

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3113, Ottawa: Employment and Immigration Canada.

Table 1a reports the distribution of dentists within British Columbia as per registration status. Table 1b shows the numbers per 10,000 population by health region and Table 1c shows the average annual rates of change in these numbers.

2. Age and Sex

Age and sex information for dentists in British Columbia, derived from CDSBC registration information, is shown in Table 2. Age information in this table is grouped according to the standard age categories developed and used by Statistics Canada.

3. Licensed Dentists

Table 3a reports the distribution of licensed dentists based on Generalist and Specialist designations, Table 3b shows numbers per 10,000 population and Table 3c shows the average annual rates of change for these numbers by health region. Since the number of dentists in most specialty categories is small, those for whom a specialty is reported have been grouped into one Specialist category. This was done to allow calculation of meaningful annual rates of change and population ratios.

4. Specialty

In Table 4, licensed dentists are allocated to the specialty area in which they have been certified by the CDSBC. Dentists who are certified in more than one specialty are allocated to the specialty in which they were most recently certified. The categories used in the table are:

- | | |
|-------------------------------------|---------------------|
| (a) Endodontics; | (f) Prosthodontics; |
| (b) Oral and Maxillofacial Surgery; | (g) Oral Pathology; |
| (c) Orthodontics; | (h) Oral Radiology; |
| (d) Paediatric Dentistry; | (i) Oral Medicine; |
| (e) Periodontics; | (j) Generalist. |

5. Analysis of Change

Table 5 illustrates the sources of change which affected the supply of licensed dentists from November 1995 to January 1998.

New registrants include dentists who were licensed as of January 1998 and who registered with the CDSBC *for the first time* subsequent to November 1995. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada, or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent dentists who were not licensed in British Columbia in November 1995, but were licensed in the province in January 1998, and whose date of initial registration was before November 1995. Also included as reactivations are licensed dentists who reported out-of-province addresses in November 1995, but who reported British Columbia addresses in January 1998.

Attrition describes licensed dentists who were included in the November 1995 population but who, because of death, retirement, suspension, out-of-province relocation, or non-renewal of licence, were not included in the January 1998 total.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of dentists between different Health Regions. The net migration total is therefore zero.

Table 1a
Dentists in British Columbia
by Health Region by Registration Status
November 1995 and January 1998

Health Region	Licensed		Temporary		Non-Practising		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	32	35	0	0	1	1	33	36
2 West Kootenay - Boundary	44	49	0	0	0	0	44	49
3 North Okanagan	53	60	0	0	0	1	53	61
4 South Okanagan - Similkameen	119	123	0	0	0	5	119	128
5 Thompson	52	54	0	0	0	3	52	57
6 Fraser Valley	85	97	0	0	1	3	86	100
7 South Fraser Valley	254	275	0	0	3	2	257	277
8 Simon Fraser	158	169	0	0	4	2	162	171
9 Coast Garibaldi	35	36	0	0	0	0	35	36
10 Central Vancouver Island	105	120	0	0	2	1	107	121
11 Upper Island/Central Coast	56	58	0	0	0	1	56	59
12 Cariboo	27	30	0	0	1	0	28	30
13 North West	39	39	0	0	0	1	39	40
14 Peace Liard	21	22	0	0	0	2	21	24
15 Northern Interior	53	56	0	0	0	1	53	57
16 Vancouver	530	564	34	41	12	12	576	617
17 Burnaby	116	128	0	0	1	1	117	129
18 North Shore	140	150	0	0	6	9	146	159
19 Richmond	102	113	0	0	1	1	103	114
20 Capital	212	223	0	1	4	6	216	230
TOTAL	2,233	2,401	34	42	36	52	2,303	2,495

Table 1b
Dentists in British Columbia
per 10,000 Population by Health Region by Registration Status
November 1995 and January 1998

Health Region	Licensed		Temporary		Non-Practising		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	4.17	4.40	0.00	0.00	0.13	0.13	4.30	4.52
2 West Kootenay - Boundary	5.53	6.02	0.00	0.00	0.00	0.00	5.53	6.02
3 North Okanagan	4.80	5.19	0.00	0.00	0.00	0.09	4.80	5.28
4 South Okanagan - Similkameen	5.53	5.49	0.00	0.00	0.00	0.22	5.53	5.71
5 Thompson	4.15	4.09	0.00	0.00	0.00	0.23	4.15	4.32
6 Fraser Valley	3.81	4.15	0.00	0.00	0.04	0.13	3.86	4.28
7 South Fraser Valley	4.87	5.00	0.00	0.00	0.06	0.04	4.93	5.03
8 Simon Fraser	5.46	5.51	0.00	0.00	0.14	0.07	5.60	5.58
9 Coast Garibaldi	5.00	4.78	0.00	0.00	0.00	0.00	5.00	4.78
10 Central Vancouver Island	4.62	5.05	0.00	0.00	0.09	0.04	4.71	5.10
11 Upper Island/Central Coast	4.87	4.83	0.00	0.00	0.00	0.08	4.87	4.91
12 Cariboo	3.85	4.01	0.00	0.00	0.14	0.00	3.99	4.01
13 North West	4.45	4.30	0.00	0.00	0.00	0.11	4.45	4.41
14 Peace Liard	3.37	3.38	0.00	0.00	0.00	0.31	3.37	3.68
15 Northern Interior	4.24	4.30	0.00	0.00	0.00	0.08	4.24	4.38
16 Vancouver	10.05	10.23	0.64	0.74	0.23	0.22	10.92	11.19
17 Burnaby	6.40	6.83	0.00	0.00	0.06	0.05	6.45	6.88
18 North Shore	8.11	8.49	0.00	0.00	0.35	0.51	8.45	9.00
19 Richmond	6.89	7.19	0.00	0.00	0.07	0.06	6.96	7.26
20 Capital	6.50	6.72	0.00	0.03	0.12	0.18	6.62	6.93
TOTAL	5.95	6.12	0.09	0.11	0.10	0.13	6.13	6.36

Table 1c
Average Annual Rate of Change¹: Dentists in British Columbia
by Health Region by Registration Status
November 1995 to January 1998

Health Region	Licensed		Temporary		Non-Practising		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	4.22	2.43	*	*	*	*	4.10	2.31
2 West Kootenay - Boundary	5.09	4.01	*	*	*	*	5.09	4.01
3 North Okanagan	5.89	3.66	*	*	*	*	6.70	4.45
4 South Okanagan - Similkameen	1.54	-0.35	*	*	*	*	3.42	1.50
5 Thompson	1.76	-0.60	*	*	*	*	4.33	1.91
6 Fraser Valley	6.28	3.95	*	*	*	*	7.21	4.86
7 South Fraser Valley	3.73	1.18	*	*	*	*	3.52	0.97
8 Simon Fraser	3.16	0.46	*	*	*	*	2.53	-0.15
9 Coast Garibaldi	1.31	-2.04	*	*	*	*	1.31	-2.04
10 Central Vancouver Island	6.36	4.22	*	*	*	*	5.84	3.71
11 Upper Island/Central Coast	1.63	-0.41	*	*	*	*	2.44	0.38
12 Cariboo	4.98	1.91	*	*	*	*	3.24	0.21
13 North West	0.00	-1.56	*	*	*	*	1.18	-0.41
14 Peace Liard	2.17	0.13	*	*	*	*	6.36	4.23
15 Northern Interior	2.57	0.69	*	*	*	*	3.42	1.51
16 Vancouver	2.91	0.82	9.02	6.81	0.00	-2.03	3.22	1.13
17 Burnaby	4.65	3.08	*	*	*	*	4.61	3.04
18 North Shore	3.24	2.15	*	*	*	*	4.02	2.92
19 Richmond	4.84	2.00	*	*	*	*	4.79	1.96
20 Capital	2.36	1.55	*	*	*	*	2.94	2.12
TOTAL	3.40	1.34	10.24	8.04	18.50	16.13	3.76	1.69

¹ A 26 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Dentists¹ in British Columbia
by Health Region by Age and Sex²
January 1998

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	8	1	7	1	12	1	6	0	0	0	0	0	33	3	36
2 West Kootenay - Boundary	0	0	11	5	11	1	15	0	6	0	0	0	0	0	43	6	49
3 North Okanagan	0	0	16	6	7	1	18	0	13	0	0	0	0	0	54	7	61
4 South Okanagan - Similkameen	0	0	20	7	26	9	38	1	21	0	5	0	1	0	111	17	128
5 Thompson	0	0	7	6	9	1	23	0	5	0	6	0	0	0	50	7	57
6 Fraser Valley	0	0	21	5	26	8	24	2	11	0	3	0	0	0	85	15	100
7 South Fraser Valley	0	0	32	20	85	34	67	8	24	2	5	0	0	0	213	64	277
8 Simon Fraser	0	0	31	17	42	14	36	6	19	1	5	0	0	0	133	38	171
9 Coast Garibaldi	0	0	6	1	6	1	11	2	5	1	3	0	0	0	31	5	36
10 Central Vancouver Island	0	1	25	1	32	12	28	1	18	0	3	0	0	0	106	15	121
11 Upper Island/Central Coast	0	1	15	3	8	3	21	1	7	0	0	0	0	0	51	8	59
12 Cariboo	0	0	10	1	7	3	7	0	2	0	0	0	0	0	26	4	30
13 North West	0	0	7	2	11	0	12	0	6	1	1	0	0	0	37	3	40
14 Peace Liard	0	0	8	3	4	0	4	0	4	0	1	0	0	0	21	3	24
15 Northern Interior	0	0	11	5	11	5	20	1	4	0	0	0	0	0	46	11	57
16 Vancouver	0	1	71	42	142	50	150	28	76	5	44	4	4	0	487	130	617
17 Burnaby	0	0	25	11	23	15	26	3	22	1	3	0	0	0	99	30	129
18 North Shore	0	0	15	9	39	14	36	8	28	2	7	0	1	0	126	33	159
19 Richmond	0	0	18	9	24	8	36	8	6	1	4	0	0	0	88	26	114
20 Capital	0	0	20	9	49	9	94	1	37	1	10	0	0	0	210	20	230
TOTAL	0	3	377	163	569	189	678	71	320	15	100	4	6	0	2,050	445	2,495

¹ Includes Licensed, Temporary and Non-Practising dentists.

² There are no dentists with missing sex information.

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Table 3a
Licensed Dentists¹ in British Columbia
by Health Region by Generalist and Specialist
November 1995 and January 1998

Health Region	Generalist		Specialist		Total	
	1995	1998	1995	1998	1995	1998
1 East Kootenay	31	34	1	1	32	35
2 West Kootenay - Boundary	44	47	0	2	44	49
3 North Okanagan	49	56	4	4	53	60
4 South Okanagan - Similkameen	105	109	14	14	119	123
5 Thompson	50	50	2	4	52	54
6 Fraser Valley	80	90	5	7	85	97
7 South Fraser Valley	236	254	18	21	254	275
8 Simon Fraser	140	154	18	15	158	169
9 Coast Garibaldi	35	36	0	0	35	36
10 Central Vancouver Island	95	107	10	13	105	120
11 Upper Island/Central Coast	52	53	4	5	56	58
12 Cariboo	25	28	2	2	27	30
13 North West	37	36	2	3	39	39
14 Peace Liard	21	22	0	0	21	22
15 Northern Interior	50	50	3	6	53	56
16 Vancouver	448	476	82	88	530	564
17 Burnaby	104	117	12	11	116	128
18 North Shore	126	136	14	14	140	150
19 Richmond	93	102	9	11	102	113
20 Capital	183	195	29	28	212	223
TOTAL	2,004	2,152	229	249	2,233	2,401

¹ Excludes dentists with Temporary and Non-Practising registration statuses.

Table 3b
Licensed Dentists¹ in British Columbia
per 10,000 Population by Health Region by Generalist and Specialist
November 1995 and January 1998

Health Region	Generalist		Specialist		Total	
	1995	1998	1995	1998	1995	1998
1 East Kootenay	4.04	4.27	0.13	0.13	4.17	4.40
2 West Kootenay - Boundary	5.53	5.77	0.00	0.25	5.53	6.02
3 North Okanagan	4.44	4.84	0.36	0.35	4.80	5.19
4 South Okanagan - Similkameen	4.88	4.86	0.65	0.62	5.53	5.49
5 Thompson	3.99	3.79	0.16	0.30	4.15	4.09
6 Fraser Valley	3.59	3.85	0.22	0.30	3.81	4.15
7 South Fraser Valley	4.53	4.62	0.35	0.38	4.87	5.00
8 Simon Fraser	4.84	5.02	0.62	0.49	5.46	5.51
9 Coast Garibaldi	5.00	4.78	0.00	0.00	5.00	4.78
10 Central Vancouver Island	4.18	4.51	0.44	0.55	4.62	5.05
11 Upper Island/Central Coast	4.52	4.41	0.35	0.42	4.87	4.83
12 Cariboo	3.57	3.74	0.29	0.27	3.85	4.01
13 North West	4.22	3.97	0.23	0.33	4.45	4.30
14 Peace Liard	3.37	3.38	0.00	0.00	3.37	3.38
15 Northern Interior	4.00	3.84	0.24	0.46	4.24	4.30
16 Vancouver	8.50	8.63	1.56	1.60	10.05	10.23
17 Burnaby	5.73	6.24	0.66	0.59	6.40	6.83
18 North Shore	7.30	7.70	0.81	0.79	8.11	8.49
19 Richmond	6.28	6.49	0.61	0.70	6.89	7.19
20 Capital	5.61	5.87	0.89	0.84	6.50	6.72
TOTAL	5.34	5.49	0.61	0.63	5.95	6.12

¹ Excludes dentists with Temporary and Non-Practising registration statuses.

Table 3c
Average Annual Rate of Change¹: Licensed Dentists² in British Columbia
by Health Region by Generalist and Specialist
November 1995 to January 1998

Health Region	Generalist		Specialist		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	4.36	2.56	*	*	4.22	2.43
2 West Kootenay - Boundary	3.09	2.03	*	*	5.09	4.01
3 North Okanagan	6.36	4.11	*	*	5.89	3.66
4 South Okanagan - Similkameen	1.74	-0.15	0.00	-1.86	1.54	-0.35
5 Thompson	0.00	-2.32	*	*	1.76	-0.60
6 Fraser Valley	5.59	3.27	*	*	6.28	3.95
7 South Fraser Valley	3.45	0.90	7.37	4.73	3.73	1.18
8 Simon Fraser	4.50	1.77	-8.07	-10.47	3.16	0.46
9 Coast Garibaldi	1.31	-2.04	*	*	1.31	-2.04
10 Central Vancouver Island	5.64	3.52	12.87	10.60	6.36	4.22
11 Upper Island/Central Coast	0.88	-1.14	*	*	1.63	-0.41
12 Cariboo	5.37	2.28	*	*	4.98	1.91
13 North West	-1.26	-2.80	*	*	0.00	-1.56
14 Peace Liard	2.17	0.13	*	*	2.17	0.13
15 Northern Interior	0.00	-1.84	*	*	2.57	0.69
16 Vancouver	2.84	0.75	3.31	1.21	2.91	0.82
17 Burnaby	5.59	4.00	-3.94	-5.38	4.65	3.08
18 North Shore	3.59	2.50	0.00	-1.05	3.24	2.15
19 Richmond	4.36	1.53	*	*	4.84	2.00
20 Capital	2.97	2.16	-1.61	-2.39	2.36	1.55
TOTAL	3.34	1.28	3.94	1.87	3.40	1.34

¹ A 26 month rate of change has been adjusted to an average annual figure.

² Excludes dentists with Temporary and Non-Practising registration statuses.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 4
Licensed Dentists¹ in British Columbia
by Health Region by Specialty
November 1995 and January 1998

Health Region	Endodontics		Oral and Maxillofacial Surgery		Orthodontics		Paediatric Dentistry		Periodontics	
	1995	1998	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	0	0	0	0	1	1	0	0	0	0
2 West Kootenay - Boundary	0	0	0	0	0	2	0	0	0	0
3 North Okanagan	0	0	1	1	3	3	0	0	0	0
4 South Okanagan - Similkameen	2	2	1	1	6	5	0	1	3	3
5 Thompson	0	0	0	0	2	3	0	0	0	1
6 Fraser Valley	0	1	0	1	4	4	0	0	1	1
7 South Fraser Valley	2	3	4	5	9	10	0	0	2	2
8 Simon Fraser	3	3	3	3	7	5	2	1	2	2
9 Coast Garibaldi	0	0	0	0	0	0	0	0	0	0
10 Central Vancouver Island	1	2	2	2	4	5	2	2	0	1
11 Upper Island/Central Coast	0	0	1	1	3	4	0	0	0	0
12 Cariboo	0	0	0	0	2	2	0	0	0	0
13 North West	0	0	0	0	2	3	0	0	0	0
14 Peace Liard	0	0	0	0	0	0	0	0	0	0
15 Northern Interior	0	0	0	1	3	4	0	0	0	1
16 Vancouver	9	11	9	9	19	21	9	9	13	13
17 Burnaby	1	1	2	1	6	6	1	1	1	1
18 North Shore	0	0	2	2	7	6	1	1	2	2
19 Richmond	3	3	1	1	4	6	0	0	1	1
20 Capital	3	3	4	4	11	10	2	2	6	6
TOTAL	24	29	30	32	93	100	17	17	31	34

... continued

¹ Excludes dentists with Temporary and Non-Practising registration statuses.

Table 4 (continued)
Licensed Dentists¹ in British Columbia
by Health Region by Specialty
November 1995 and January 1998

Health Region	Prosthodontics		Oral Pathology		Oral Radiology		Oral Medicine		Generalist		Total	
	1995	1998	1995	1998	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	0	0	0	0	0	0	0	0	31	34	32	35
2 West Kootenay - Boundary	0	0	0	0	0	0	0	0	44	47	44	49
3 North Okanagan	0	0	0	0	0	0	0	0	49	56	53	60
4 South Okanagan - Similkameen	2	2	0	0	0	0	0	0	105	109	119	123
5 Thompson	0	0	0	0	0	0	0	0	50	50	52	54
6 Fraser Valley	0	0	0	0	0	0	0	0	80	90	85	97
7 South Fraser Valley	0	0	0	0	0	0	1	1	236	254	254	275
8 Simon Fraser	1	1	0	0	0	0	0	0	140	154	158	169
9 Coast Garibaldi	0	0	0	0	0	0	0	0	35	36	35	36
10 Central Vancouver Island	1	1	0	0	0	0	0	0	95	107	105	120
11 Upper Island/Central Coast	0	0	0	0	0	0	0	0	52	53	56	58
12 Cariboo	0	0	0	0	0	0	0	0	25	28	27	30
13 North West	0	0	0	0	0	0	0	0	37	36	39	39
14 Peace Liard	0	0	0	0	0	0	0	0	21	22	21	22
15 Northern Interior	0	0	0	0	0	0	0	0	50	50	53	56
16 Vancouver	17	19	1	1	1	1	4	4	448	476	530	564
17 Burnaby	1	1	0	0	0	0	0	0	104	117	116	128
18 North Shore	2	3	0	0	0	0	0	0	126	136	140	150
19 Richmond	0	0	0	0	0	0	0	0	93	102	102	113
20 Capital	3	3	0	0	0	0	0	0	183	195	212	223
TOTAL	27	30	1	1	1	1	5	5	2,004	2,152	2,233	2,401

¹ Excludes dentists with Temporary and Non-Practising registration statuses.

Table 5
Analysis of Change in the Number of Licensed Dentists¹ in British Columbia
by Health Region
November 1995 to January 1998

Health Region	November 1995	New Registrants ² by Place of Graduation					Reactivation ³	Attrition ⁴	Net Intra-provincial Migration	January 1998
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	32	2	1	0	0	3	0	0	0	35
2 West Kootenay - Boundary	44	3	3	0	0	6	3	4	0	49
3 North Okanagan	53	2	4	1	0	7	1	2	1	60
4 South Okanagan - Similkameen	119	2	7	1	0	10	3	11	2	123
5 Thompson	52	3	1	0	0	4	3	2	-3	54
6 Fraser Valley	85	2	3	1	0	6	1	4	9	97
7 South Fraser Valley	254	7	6	12	0	25	4	6	-2	275
8 Simon Fraser	158	5	3	3	0	11	3	5	2	169
9 Coast Garibaldi	35	2	0	0	0	2	0	1	0	36
10 Central Vancouver Island	105	3	6	1	0	10	4	3	4	120
11 Upper Island/Central Coast	56	2	1	0	0	3	2	4	1	58
12 Cariboo	27	2	0	1	0	3	0	2	2	30
13 North West	39	2	0	1	0	3	1	2	-2	39
14 Peace Liard	21	0	3	0	1	4	0	3	0	22
15 Northern Interior	53	5	1	2	0	8	1	4	-2	56
16 Vancouver	530	12	7	27	2	48	15	31	2	564
17 Burnaby	116	6	6	7	0	19	4	2	-9	128
18 North Shore	140	3	2	5	1	11	6	7	0	150
19 Richmond	102	10	2	7	0	19	0	4	-4	113
20 Capital	212	5	8	1	0	14	6	8	-1	223
TOTAL	2,233	78	64	70	4	216	57	105	0	2,401

¹ Excludes dentists with Temporary and Non-Practising registration statuses.

² Dentists who reported B.C. addresses and were licensed in January 1998 and whose date of initial registration was after November 1995.

³ Dentists who reported B.C. addresses and were licensed in January 1998 but not in November 1995 and who were registered for the first time before November 1995.

⁴ Dentists who reported B.C. addresses and were licensed in November 1995 but not in January 1998.

DENTURISTS

Definition: A denturist

...is registered subject to terms and conditions established by the bylaws or set out in his certificate of registration...

- (a) to make, repair, reline, replace, or furnish upper or lower full dentures, or both, and for that purpose carry out non surgical intraoral procedures, including the taking of impressions that are necessary to make, repair, reline, replace or furnish upper or lower full dentures, or both, and
- (b) where the repairs or replacement can be done without intraoral procedures or the taking of impressions, make structural repairs to a removable dental prosthesis or replace teeth in a denture.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Denturists of British Columbia (CDBC). In order to practise as a Denturist in British Columbia, it is necessary to be registered by the College of Denturists of British Columbia. Registered denturists have exclusive use of the title: *denturist*.

Date of Record: March 1996 and December 1997.

Source of Data: College of Denturists of British Columbia (CDBC).

Preparation and Updating:

Information reported in the tables is derived from data supplied by the CDBC and includes denturists who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the registration status is *active*, and when employment address is available. In 1997, employment address was available for 100% of active denturists. The corresponding figure was 90% in 1996. Home address is used for denturists when the registration status is *student* or *inactive*.

Definition of Terms:

Tables 1a and 1b show number and number per 10,000 population of denturists in B.C. at the date of record by registration status. Table 1c shows the average annual rates of change in these numbers from March 1996 to December 1997.

¹ Adapted from the Regulations of the College of Denturists of British Columbia. See also *National Occupational Classification 1992*, Major Group 32, No. 3221, Ottawa: Employment and Immigration Canada.

The registration categories now used by the CDBC ² are as follows:

(a) *Active (formerly Registered)*

An active denturist is registered by the College of Denturists of British Columbia.

(b) *Student*

A student denturist is registered by the College of Denturists of British Columbia and may only perform services under the supervision of an active denturist. After 18 months work experience, a student denturist is eligible to undertake the registration exams to become an active denturist.

(c) *Inactive (formerly Non-Practising)*

Inactive registration may be elected by a registrant who is not currently working in the field.

In contrast to earlier editions of *ROLLCALL*, the former CDBC registration category of *temporary* is no longer available, and is therefore not reported here. As a result, the total number of denturists shown for March 1996 in these tables is smaller than the total number of denturists reported in *ROLLCALL 95*.

² Adapted from the Bylaws of the College of Denturists of British Columbia, December 1996, Part V.

Table 1a
Denturists in British Columbia
by Health Region by Registration Status¹
March 1996 and December 1997

Health Region	Active		Student		Inactive		Total	
	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	3	3	0	0	1	0	4	3
2 West Kootenay - Boundary	5	3	0	0	0	0	5	3
3 North Okanagan	5	6	1	1	1	1	7	8
4 South Okanagan - Similkameen	17	18	1	1	2	1	20	20
5 Thompson	4	4	0	0	0	0	4	4
6 Fraser Valley	9	9	0	0	1	0	10	9
7 South Fraser Valley	30	23	0	3	3	0	33	26
8 Simon Fraser	13	13	4	0	1	2	18	15
9 Coast Garibaldi	6	6	1	0	0	0	7	6
10 Central Vancouver Island	14	14	3	0	1	0	18	14
11 Upper Island/Central Coast	6	7	0	0	0	0	6	7
12 Cariboo	2	2	0	0	0	0	2	2
13 North West	3	4	1	0	0	0	4	4
14 Peace Liard	2	2	0	0	0	0	2	2
15 Northern Interior	3	4	1	1	0	0	4	5
16 Vancouver	33	35	6	7	2	5	41	47
17 Burnaby	9	11	2	2	0	1	11	14
18 North Shore	7	5	0	0	4	3	11	8
19 Richmond	5	4	3	0	0	0	8	4
20 Capital	23	26	1	2	1	1	25	29
TOTAL	199	199	24	17	17	14	240	230

¹ The CDBC has made several changes to their registration categories since *ROLLCALL 95*. The category "Active" has replaced "Registered", the category "Inactive" has replaced "Non-Practising", and the category of "Temporary" has been eliminated. As a result, the March 1996 totals will be smaller than those reported in *ROLLCALL 95*.

Table 1b
Denturists in British Columbia
per 10,000 Population by Health Region by Registration Status¹
March 1996 and December 1997

Health Region	Active		Student		Inactive		Total	
	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	0.39	0.38	0.00	0.00	0.13	0.00	0.52	0.38
2 West Kootenay - Boundary	0.63	0.37	0.00	0.00	0.00	0.00	0.63	0.37
3 North Okanagan	0.45	0.52	0.09	0.09	0.09	0.09	0.63	0.69
4 South Okanagan - Similkameen	0.79	0.80	0.05	0.04	0.09	0.04	0.93	0.89
5 Thompson	0.32	0.30	0.00	0.00	0.00	0.00	0.32	0.30
6 Fraser Valley	0.40	0.38	0.00	0.00	0.04	0.00	0.45	0.38
7 South Fraser Valley	0.58	0.42	0.00	0.05	0.06	0.00	0.63	0.47
8 Simon Fraser	0.45	0.42	0.14	0.00	0.03	0.07	0.62	0.49
9 Coast Garibaldi	0.86	0.80	0.14	0.00	0.00	0.00	1.00	0.80
10 Central Vancouver Island	0.62	0.59	0.13	0.00	0.04	0.00	0.79	0.59
11 Upper Island/Central Coast	0.52	0.58	0.00	0.00	0.00	0.00	0.52	0.58
12 Cariboo	0.29	0.27	0.00	0.00	0.00	0.00	0.29	0.27
13 North West	0.34	0.44	0.11	0.00	0.00	0.00	0.46	0.44
14 Peace Liard	0.32	0.31	0.00	0.00	0.00	0.00	0.32	0.31
15 Northern Interior	0.24	0.31	0.08	0.08	0.00	0.00	0.32	0.38
16 Vancouver	0.63	0.63	0.11	0.13	0.04	0.09	0.78	0.85
17 Burnaby	0.50	0.59	0.11	0.11	0.00	0.05	0.61	0.75
18 North Shore	0.41	0.28	0.00	0.00	0.23	0.17	0.64	0.45
19 Richmond	0.34	0.25	0.20	0.00	0.00	0.00	0.54	0.25
20 Capital	0.70	0.78	0.03	0.06	0.03	0.03	0.77	0.87
TOTAL	0.53	0.51	0.06	0.04	0.05	0.04	0.64	0.59

¹ The CDBC has made several changes to their registration categories since *ROLLCALL 95*. The category "Active" has replaced "Registered", the category "Inactive" has replaced "Non-Practising", and the category of "Temporary" has been eliminated.

Table 1c
Average Annual Rate of Change¹: Denturists in British Columbia
by Health Region by Registration Status²
March 1996 to December 1997

Health Region	Active		Student		Inactive		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	*	*	*	*	*	*	*	*
2 West Kootenay - Boundary	*	*	*	*	*	*	*	*
3 North Okanagan	*	*	*	*	*	*	*	*
4 South Okanagan - Similkameen	3.17	0.90	*	*	*	*	0.00	-2.19
5 Thompson	*	*	*	*	*	*	*	*
6 Fraser Valley	*	*	*	*	*	*	-5.58	-8.03
7 South Fraser Valley	-13.49	-16.01	*	*	*	*	-12.19	-14.75
8 Simon Fraser	0.00	-3.08	*	*	*	*	-9.47	-12.26
9 Coast Garibaldi	*	*	*	*	*	*	*	*
10 Central Vancouver Island	0.00	-2.37	*	*	*	*	-12.81	-14.88
11 Upper Island/Central Coast	*	*	*	*	*	*	*	*
12 Cariboo	*	*	*	*	*	*	*	*
13 North West	*	*	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*	*	*
15 Northern Interior	*	*	*	*	*	*	*	*
16 Vancouver	3.26	0.78	*	*	*	*	7.73	5.15
17 Burnaby	*	*	*	*	*	*	14.06	12.04
18 North Shore	*	*	*	*	*	*	-15.95	-16.99
19 Richmond	*	*	*	*	*	*	*	*
20 Capital	6.92	5.91	*	*	*	*	8.43	7.42
TOTAL	0.00	-2.35	-17.15	-19.10	-10.05	-12.17	-2.29	-4.59

¹ A 22 month rate of change has been adjusted to an average annual figure.

² The CDBC has made several changes to their registration categories since *ROLLCALL 95*. The category "Active" has replaced "Registered", the category "Inactive" has replaced "Non-Practising", and the category of "Temporary" has been eliminated.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

III. HEALTH STANDARDS

ENVIRONMENTAL HEALTH OFFICERS

Definition: An environmental health officer (formerly a public health inspector)

...investigates health- and safety-related complaints and inspects restaurants, food processing and industrial establishments, hotels, municipal water systems, and other workplaces to ensure compliance with government regulations regarding sanitation, pollution control and the handling and storage of hazardous substances.

Environmental health officers perform some or all of the following duties:

- (a) inspect the sanitary conditions of restaurants, hotels, schools, hospitals, and other public facilities or institutions and investigate outbreaks of diseases and poisonings resulting from spoiled food supplies;
- (b) conduct surveys and monitor programs of the natural environment to identify sources of pollution;
- (c) investigate spills of hazardous chemicals or products which may pose a risk to human health or the natural environment and collect samples of water or other materials for analysis;
- (d) initiate enforcement procedures to fine or to close an establishment contravening municipal, provincial or federal regulations;
- (e) provide information to employers, employees and the general public on issues of public health or environmental protection.¹

Governing Statute: Health Act, R.S.B.C. 1996, Chapter 179; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Board of Certification of Public Health Inspectors of the Canadian Institute of Public Health Inspectors. No person shall be appointed to the position of environmental health officer or public health inspector unless he or she holds a Certificate in Public Health Inspection (Canada) or the acceptable authorised equivalent. Members of the British Columbia Branch of the Canadian Institute of Public Health Inspectors have exclusive use of the titles: *Registered Public Health Inspector*, *Registered Environmental Health Officer*, *RPHI* and *REHO*.

Date of Record: April 1996 and June 1998.

Sources of Data: The Health Protection and Safety Division of the B.C. Ministry of Health (April 1996 data); the British Columbia Branch of the Canadian Institute of Public Health Inspectors, the Regional Health Boards and Community Health Services Societies now responsible for employing all environmental health officers in provincial or municipal positions in B.C.², and Health Canada, Vancouver.

¹ *National Occupational Classification 1992*, Major Group 22, No. 2263, Ottawa: Employment and Immigration Canada. Information also obtained from the Health Protection and Safety Division of the Ministry of Health.

² As of April 1, 1997, the B.C. Ministry of Health devolved responsibility for the delivery of environmental health services to the eleven Regional Health Boards and seven Community Health Services Societies.

Preparation and Updating:

In April 1996, a list of environmental health officers employed in British Columbia was prepared by the Health Protection and Safety Division of the Ministry of Health. In 1997, the Regional Health Boards and Community Health Services Societies³, and Health Canada, Vancouver were contacted for a list of environmental health officers in their employ. The table includes all persons known to be employed in provincial, municipal or federal positions in British Columbia at the date of record. Data presented in the table are based on employment address for all environmental health officers.

³ As of April 1, 1997, the B.C. Ministry of Health devolved responsibility for the delivery of environmental health services to the eleven Regional Health Boards and seven Community Health Services Societies.

Table 1
Environmental Health Officers in British Columbia
by Health Region
April 1996 and June 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1996	1998	1996	1998	Number ²	Ratio ³
1 East Kootenay	7	8	0.91	1.00	*	*
2 West Kootenay - Boundary	8	8	1.00	0.98	*	*
3 North Okanagan	9	9	0.82	0.78	*	*
4 South Okanagan - Similkameen	14	16	0.65	0.71	7.56	5.19
5 Thompson	11	15	0.88	1.14	18.43	15.20
6 Fraser Valley	18	16	0.81	0.68	-6.22	-8.65
7 South Fraser Valley	25	24	0.48	0.44	-2.20	-5.04
8 Simon Fraser	19	19	0.66	0.62	0.00	-3.08
9 Coast Garibaldi	8	7	1.14	0.93	*	*
10 Central Vancouver Island	15	17	0.66	0.72	7.07	4.53
11 Upper Island/Central Coast	11	10	0.96	0.83	-5.07	-7.31
12 Cariboo	7	7	1.00	0.94	*	*
13 North West	9	10	1.03	1.10	*	*
14 Peace Liard	6	6	0.96	0.92	*	*
15 Northern Interior	12	12	0.96	0.92	0.00	-2.17
16 Vancouver	51	52	0.97	0.94	1.06	-1.36
17 Burnaby	25	23	1.38	1.23	-4.45	-6.14
18 North Shore	9	8	0.52	0.45	*	*
19 Richmond	9	10	0.61	0.64	*	*
20 Capital	34	28	1.04	0.84	-10.05	-10.89
TOTAL	307	305	0.82	0.78	-0.36	-2.70

¹ A 22 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

IV. LABORATORY AND THERAPEUTIC TECHNOLOGICAL SERVICES

CARDIOLOGY TECHNOLOGISTS

Definition: A cardiology technologist

...operates electrocardiographs and other electronic equipment to record cardiac activity of patients to aid in the diagnosis and treatment of heart disease.

Cardiology technologists perform some or all of the following duties:

- (a) utilise electrocardiographs and various related computerised equipment, to obtain significant cardiac data;
- (b) conduct various cardiac tests, such as electrocardiograms, ambulatory monitoring, exercise tolerance tests, pacemaker threshold testing, and pacemaker analysis tests;
- (c) obtain pharmacological and cardiac history;
- (d) monitor and analyse cardiac activity and record results;
- (e) select and record cardiac data for interpretation by physicians;
- (f) assess current pacemaker parameters and reprogram for optimal standards;
- (g) assist surgeon in operating room by testing pacemaker thresholds during pacemaker lead and generator implants and provide backup pacing
- (h) ensure that all cardiology equipment is functioning appropriately.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Cardiology Technologists Association of British Columbia is voluntary. However, registered members have exclusive use of the titles: *Registered Cardiology Technologist*, *Registered Cardiology Technician*, and *RCT*.

Date of Record: December 1995 and March 1998.

Source of Data: The Cardiology Technologists Association of British Columbia (CTABC).

Preparation and Updating:

The tables, prepared from the membership list provided by the CTABC, include cardiology technologists who were residents of British Columbia at the date of record. Members with *inactive* or *life* membership status are not included. Data presented in the tables are based on home address for all cardiology technologists. The March 1998 data were obtained during a membership renewal cycle and may not accurately reflect membership at that time. Comparisons with 1995 data should therefore be made with caution.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3217, Ottawa: Employment and Immigration Canada and from information provided by the Cardiology Technologists Association of B.C.

Definition of Terms:

1. Membership Status

Tables 1a and 1b show the number and number per 10,000 of cardiology technologists in active practice based on membership status. Table 1c shows the average annual rates of change in these numbers. The significant rate of decline seen within the associate membership category in *ROLLCALL* 95 appears to have continued between 1995 and 1998. This decline is due to attrition, retirement and a significant percentage of associate members who have attained registration over this period.

The membership categories used by the CTABC for active members are:²

(a) *Registered* members:

Registered members are persons engaged in the field of Cardiology who have completed a one year certificate course of Cardiology technology from a college/technical institute or two years of training in the field and one year with the Canadian Society of Cardiology Technologists Inc. (CSCT Inc.) study course of theory and technique, and who have passed Registration examinations set by the CSCT Inc.

(b) *Advanced Registered* members:

Advanced Registered members are persons engaged in the field of Cardiology who have been registered members for one full year, and who passed the Advanced examinations formerly offered by the CSCT Inc. The Advanced examinations are no longer offered by the CSCT Inc.

(c) *Associate* members:

Associate members are persons enrolled as a student in a college/technical institute certificate course of Cardiology technology, which is recognised by the CSCT Inc., or engaged in the field of Cardiology, who have not undertaken and passed the Registration examinations set by the CSCT Inc.

2. Employment Setting

Table 2 shows cardiology technologists based on employment setting using the following categories:

- (a) Hospital;
- (b) Laboratory/Clinic;
- (c) Other;
- (d) Unknown.

² Adapted from information provided by the Cardiology Technologists Association of B.C.

Table 1a
Cardiology Technologists (CTABC Members)^{1,2,3} in British Columbia
by Health Region by Membership Status
December 1995 and March 1998

Health Region	Registered		Advanced Registered		Associate		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	0	0	2	2	0	0	2	2
2 West Kootenay - Boundary	3	2	2	0	0	0	5	2
3 North Okanagan	2	2	1	1	0	0	3	3
4 South Okanagan - Similkameen	4	5	12	10	1	0	17	15
5 Thompson	1	0	3	3	0	0	4	3
6 Fraser Valley	5	6	10	8	5	0	20	14
7 South Fraser Valley	26	18	35	24	1	0	62	42
8 Simon Fraser	14	21	21	15	5	1	40	37
9 Coast Garibaldi	1	2	1	0	0	0	2	2
10 Central Vancouver Island	8	6	11	11	1	0	20	17
11 Upper Island/Central Coast	6	5	5	5	0	0	11	10
12 Cariboo	1	1	1	1	0	0	2	2
13 North West	0	0	1	1	0	1	1	2
14 Peace Liard	1	1	0	0	0	0	1	1
15 Northern Interior	3	2	1	0	0	0	4	2
16 Vancouver	19	17	19	15	2	1	40	33
17 Burnaby	11	10	8	5	4	0	23	15
18 North Shore	7	5	7	11	0	0	14	16
19 Richmond	4	3	6	9	3	1	13	13
20 Capital	15	15	13	12	0	0	28	27
TOTAL	131	121	159	133	22	4	312	258

¹ Membership in the Cardiology Technologists Association of B.C. (CTABC) is voluntary.

² Excludes 10 student members in 1995.

³ Excludes 8 technologists with unknown location in 1995.

Table 1b
Cardiology Technologists (CTABC Members)^{1,2,3} in British Columbia
per 10,000 Population by Health Region by Membership Status
December 1995 and March 1998

Health Region	Registered		Advanced Registered		Associate		Total	
	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	0.00	0.00	0.26	0.25	0.00	0.00	0.26	0.25
2 West Kootenay - Boundary	0.38	0.25	0.25	0.00	0.00	0.00	0.63	0.25
3 North Okanagan	0.18	0.17	0.09	0.09	0.00	0.00	0.27	0.26
4 South Okanagan - Similkameen	0.19	0.22	0.56	0.45	0.05	0.00	0.79	0.67
5 Thompson	0.08	0.00	0.24	0.23	0.00	0.00	0.32	0.23
6 Fraser Valley	0.22	0.26	0.45	0.34	0.22	0.00	0.90	0.60
7 South Fraser Valley	0.50	0.33	0.67	0.44	0.02	0.00	1.19	0.76
8 Simon Fraser	0.48	0.69	0.73	0.49	0.17	0.03	1.38	1.21
9 Coast Garibaldi	0.14	0.27	0.14	0.00	0.00	0.00	0.29	0.27
10 Central Vancouver Island	0.35	0.25	0.48	0.46	0.04	0.00	0.88	0.72
11 Upper Island/Central Coast	0.52	0.42	0.44	0.42	0.00	0.00	0.96	0.83
12 Cariboo	0.14	0.13	0.14	0.13	0.00	0.00	0.29	0.27
13 North West	0.00	0.00	0.11	0.11	0.00	0.11	0.11	0.22
14 Peace Liard	0.16	0.15	0.00	0.00	0.00	0.00	0.16	0.15
15 Northern Interior	0.24	0.15	0.08	0.00	0.00	0.00	0.32	0.15
16 Vancouver	0.36	0.31	0.36	0.27	0.04	0.02	0.76	0.60
17 Burnaby	0.61	0.53	0.44	0.27	0.22	0.00	1.27	0.80
18 North Shore	0.41	0.28	0.41	0.62	0.00	0.00	0.81	0.91
19 Richmond	0.27	0.19	0.41	0.57	0.20	0.06	0.88	0.83
20 Capital	0.46	0.45	0.40	0.36	0.00	0.00	0.86	0.81
TOTAL	0.35	0.31	0.42	0.34	0.06	0.01	0.83	0.66

¹ Membership in the Cardiology Technologists Association of B.C. (CTABC) is voluntary.

² Excludes 10 student members in 1995.

³ Excludes 8 technologists with unknown location in 1995.

Table 1c
Average Annual Rate of Change¹: Cardiology Technologists (CTABC Members)^{2,3,4}
in British Columbia by Health Region by Membership Status
December 1995 to March 1998

Health Region	Registered		Advanced Registered		Associate		Total	
	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶
1 East Kootenay	*	*	*	*	*	*	*	*
2 West Kootenay - Boundary	*	*	*	*	*	*	*	*
3 North Okanagan	*	*	*	*	*	*	*	*
4 South Okanagan - Similkameen	*	*	-7.52	-9.11	*	*	-5.22	-6.86
5 Thompson	*	*	*	*	*	*	*	*
6 Fraser Valley	*	*	-9.12	-10.97	*	*	-14.18	-15.93
7 South Fraser Valley	-14.58	-16.54	-14.93	-16.88	*	*	-15.37	-17.31
8 Simon Fraser	18.98	16.09	-13.43	-15.53	*	*	-3.29	-5.64
9 Coast Garibaldi	*	*	*	*	*	*	*	*
10 Central Vancouver Island	*	*	0.00	-1.87	*	*	-6.75	-8.47
11 Upper Island/Central Coast	*	*	*	*	*	*	-4.00	-5.79
12 Cariboo	*	*	*	*	*	*	*	*
13 North West	*	*	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*	*	*
15 Northern Interior	*	*	*	*	*	*	*	*
16 Vancouver	-4.65	-6.46	-9.63	-11.34	*	*	-7.91	-9.65
17 Burnaby	-4.00	-5.34	*	*	*	*	-16.74	-17.90
18 North Shore	*	*	*	*	*	*	5.89	4.85
19 Richmond	*	*	*	*	*	*	0.00	-2.52
20 Capital	0.00	-0.74	-3.37	-4.08	*	*	-1.55	-2.27
TOTAL	-3.35	-5.14	-7.37	-9.08	-51.84	-52.73	-7.82	-9.53

¹ A 28 month rate of change has been adjusted to an average annual figure.

² Membership in the Cardiology Technologists Association of B.C. (CTABC) is voluntary.

³ Excludes 10 student members in 1995.

⁴ Excludes 8 technologists with unknown location in 1995.

⁵ Rate of change (in percent) in the number.

⁶ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Cardiology Technologists (CTABC Members)¹ in British Columbia
by Health Region by Employment Setting
March 1998

Health Region	Hospital	Laboratory/ Clinic	Other	Unknown	Total
1 East Kootenay	2	0	0	0	2
2 West Kootenay - Boundary	0	2	0	0	2
3 North Okanagan	3	0	0	0	3
4 South Okanagan - Similkameen	14	0	0	1	15
5 Thompson	3	0	0	0	3
6 Fraser Valley	7	6	1	0	14
7 South Fraser Valley	23	19	0	0	42
8 Simon Fraser	20	14	0	3	37
9 Coast Garibaldi	2	0	0	0	2
10 Central Vancouver Island	16	1	0	0	17
11 Upper Island/Central Coast	10	0	0	0	10
12 Cariboo	2	0	0	0	2
13 North West	0	0	1	1	2
14 Peace Liard	1	0	0	0	1
15 Northern Interior	2	0	0	0	2
16 Vancouver	23	10	0	0	33
17 Burnaby	9	5	0	1	15
18 North Shore	10	6	0	0	16
19 Richmond	10	2	0	1	13
20 Capital	19	5	1	2	27
TOTAL	176	70	3	9	258

¹ Membership in the Cardiology Technologists Association of B.C. (CTABC) is voluntary.

CLINICAL PERFUSIONISTS

Definition: A clinical perfusionist (formerly a cardiovascular perfusionist)

...provides technical support to cardiac surgeons and anaesthetists during open-heart surgery.

Clinical perfusionists perform some or all of the following duties:

- (a) assemble, maintain and operate extra-corporeal circulation equipment, intra-aortic balloon pumps and other heart assist devices to support or temporarily replace patients' cardiopulmonary functions during open-heart surgery;
- (b) administer blood products, drugs, and other substances through heart-lung machines and other devices as directed by cardiac surgeons and anaesthetists;
- (c) monitor vital signs to maintain patients' physiological functions during cardiopulmonary surgery;
- (d) supervise and train student clinical perfusionists and other clinical perfusionists.¹

Governing Statute: None.

Governing Body: None. Compulsory licensure and/or registration do not exist. Voluntary certification by the Canadian Society of Clinical Perfusion (CSCP) or by the American Board of Cardiovascular Perfusion is common.

Date of Record: October 1995 and January 1998.

Source of Data: Canadian Society of Clinical Perfusion (CSCP).

Preparation and Updating:

The table has been prepared from a membership list provided by the B.C. Branch of the Canadian Society of Clinical Perfusion (CSCP) and includes clinical perfusionists who reported a British Columbia address at the date of record. Data presented in the table are based on employment address.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3214, Ottawa: Employment and Immigration Canada.

Table 1
Clinical Perfusionists (CSCP Members)¹ in British Columbia
by Health Region
October 1995² and January 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ³	
	1995	1998	1995	1998	Number ⁴	Ratio ⁵
1 East Kootenay	0	0	0.00	0.00	*	*
2 West Kootenay - Boundary	0	0	0.00	0.00	*	*
3 North Okanagan	0	0	0.00	0.00	*	*
4 South Okanagan - Similkameen	0	0	0.00	0.00	*	*
5 Thompson	0	0	0.00	0.00	*	*
6 Fraser Valley	0	0	0.00	0.00	*	*
7 South Fraser Valley	0	0	0.00	0.00	*	*
8 Simon Fraser	4	5	0.14	0.16	*	*
9 Coast Garibaldi	0	0	0.00	0.00	*	*
10 Central Vancouver Island	0	0	0.00	0.00	*	*
11 Upper Island/Central Coast	0	0	0.00	0.00	*	*
12 Cariboo	0	0	0.00	0.00	*	*
13 North West	0	0	0.00	0.00	*	*
14 Peace Liard	0	0	0.00	0.00	*	*
15 Northern Interior	0	0	0.00	0.00	*	*
16 Vancouver	19	20	0.36	0.36	2.31	0.30
17 Burnaby	0	0	0.00	0.00	*	*
18 North Shore	0	0	0.00	0.00	*	*
19 Richmond	0	0	0.00	0.00	*	*
20 Capital	5	5	0.15	0.15	*	*
TOTAL	28	30	0.07	0.08	3.11	1.13

¹ Membership in the Canadian Society of Clinical Perfusion (CSCP) is voluntary.

² Excludes 1 perfusionist who was not employed in clinical perfusion and 1 who was on leave of absence in 1995.

³ A 27 month rate of change has been adjusted to an average annual figure.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

DIAGNOSTIC MEDICAL SONOGRAPHERS

Definition: A diagnostic medical sonographer

...operates ultrasound equipment to produce and record images of various parts of the body to aid physicians in monitoring pregnancies and in diagnosing cardiac, vascular and other disorders.

Diagnostic medical sonographers perform some or all of the following duties:

- (a) operate ultrasound imaging equipment that transmits high frequency sound pulses through the body to produce images of those parts of the body requiring examination;
- (b) monitor examination by viewing images on video screen, to evaluate quality and consistency of diagnostic images, and make adjustments to equipment, as required;
- (c) observe and care for patients throughout examinations to ensure patient safety and comfort;
- (d) prepare examination reports for physicians to aid in the monitoring of pregnancies and the diagnosis of cardiac, abdominal, ophthalmic, vascular, and other disorders;
- (e) check ultrasound equipment to ensure proper operation and perform minor repairs and adjustments as required.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. However, most diagnostic medical sonographers currently employed in British Columbia are registered with the American Registry of Diagnostic Medical Sonographers. Membership in the British Columbia Ultrasonographers' Society is voluntary.

Date of Record: March 1998.

Sources of Data: British Columbia Ultrasonographers' Society (BCUS), and the American Registry of Diagnostic Medical Sonographers (ARDMS).

Preparation and Updating:

The table includes diagnostic medical sonographers in British Columbia at the date of record who are either registrants of the ARDMS, or members of the BCUS. Data presented in the table are based on home address for the majority of diagnostic medical sonographers this year. Precise percentages of home versus employment or other address are not known.

In 1995, diagnostic medical sonographers were identified by ARDMS, BCUS, and employers of diagnostic medical sonography personnel in B.C. The employers were not contacted separately this year since most diagnostic medical sonographers currently employed in British Columbia are now registered with the American Registry of Diagnostic Medical Sonographers. Therefore comparisons with the 1995 data are not possible, and comparative analyses are not presented. There was also no survey conducted of diagnostic medical sonographers this year, so Tables 2 to 4, which appeared in 1995, are not included this year.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3216, Ottawa: Employment and Immigration Canada.

Table 1
Diagnostic Medical Sonographers (BCUS Members and ARDMS Registrants)¹
in British Columbia by Health Region
March 1998

Health Region	Number	Number per 10,000 Population
1 East Kootenay	7	0.88
2 West Kootenay - Boundary	8	0.98
3 North Okanagan	8	0.69
4 South Okanagan - Similkameen	20	0.89
5 Thompson	7	0.53
6 Fraser Valley	23	0.98
7 South Fraser Valley	47	0.85
8 Simon Fraser	43	1.40
9 Coast Garibaldi	8	1.06
10 Central Vancouver Island	17	0.72
11 Upper Island/Central Coast	13	1.08
12 Cariboo	3	0.40
13 North West	6	0.66
14 Peace Liard	8	1.23
15 Northern Interior	7	0.54
16 Vancouver	57	1.03
17 Burnaby	20	1.07
18 North Shore	24	1.36
19 Richmond	16	1.02
20 Capital	36	1.08
TOTAL	378	0.96

¹ Data for this table are compiled from a membership list supplied by the B.C. Ultrasonographers' Society (BCUS) and a registrant list supplied by the American Registry of Diagnostic Medical Sonographers (ARDMS).

MEDICAL LABORATORY TECHNOLOGISTS

Definition: A medical laboratory technologist

...conducts medical laboratory tests, experiments, and analyses to assist in the diagnosis, treatment, and prevention of disease.

Medical laboratory technologists perform some or all of the following duties:

- (a) conduct chemical analyses of blood, urine, cerebro-spinal and other body fluids;
- (b) study blood cells and other tissue to determine their relation to various physiological and pathological conditions;
- (c) prepare tissue sections for microscopic examinations using techniques to demonstrate special cellular tissue elements or other characteristics;
- (d) establish procedures for the analysis of specimens and for medical laboratory experiments;
- (e) perform blood group, type and compatibility tests for transfusion purposes;
- (f) may supervise and train other medical laboratory technologists and other medical laboratory workers.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Canadian Society of Laboratory Technologists (CSLT)/Canadian Society for Medical Laboratory Science (CSMLS)² is voluntary. The CSMLS administers examinations for certification with the designations RT (Registered Technologist), ART (Advanced Registered Technologist), and FCSLT (Fellowship of the Canadian Society of Laboratory Technologists).

Date of Record: October 1995 and October 1997.

Source of Data: Canadian Society of Laboratory Technologists (CSLT)/Canadian Society for Medical Laboratory Science (CSMLS)².

Preparation and Updating:

The tables are derived from the membership data supplied by the CSMLS and include medical laboratory technologists who reported a British Columbia address at the date of record. Members are classified by the CSMLS according to their training and practice. Where members have more than one certificate, the most recently obtained is used. Data presented in the tables are based on home address for the majority of medical laboratory technologists. Precise percentages of home versus employment or other address are not known.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3211, Ottawa; Employment and Immigration Canada.

² The Canadian Society of Laboratory Technologists (CSLT) officially changed its name to the Canadian Society for Medical Laboratory Science (CSMLS) in 1997.

Definition of Terms:

1. Membership Status

Tables 1a and 1b show number and number per 10,000 population based on membership status for members who reported a British Columbia address at the date of record. Table 1c shows the average annual rates of change in these numbers from 1995 to 1997. The following categories are used for membership status:

(a) *Certified (Active)*

A certified active member has passed the required examinations and is currently employed in medical laboratory technology in British Columbia.

(b) *Certified (Inactive)*

A certified inactive member has passed the required examinations, but is not currently employed in medical laboratory technology in British Columbia.

(c) *Subscriber (Non-Certified)*

A subscriber is a member who has met medical laboratory technology standards in another country, but has not yet taken the Canadian examinations for certification. These members generally are employed in the field.

(d) *Trainee/Student Trainee*

A trainee member or a student trainee member is a student, and not considered to be part of the work force.³

2. Level of Certification

Tables 2a and 2b report the number and number per 10,000 population based on level of certification of Certified (Active) members who were British Columbia residents at the date of record. Table 2c shows the average annual rates of change in these numbers from 1995 to 1997. The categories used for level of certification are as follows:

(a) *Registered Technologist (RT)*

Requires set standards for schooling, and successful completion of examinations administered by the CSMLS. Certification can be general or in a specific area.

(b) *Advanced Registered Technologist (ART)*

Requires additional course work and examinations.

(c) *Fellowship of the CSLT (FCSLT)*

Highest certification level, with educational and examination requirements.³

³ Adapted from information received from the Canadian Society of Laboratory Technologists/Canadian Society for Medical Laboratory Science.

Table 1a
Medical Laboratory Technologists (CSMLS Members)¹ in British Columbia
by Health Region by Membership Status
October 1995² and October 1997

Health Region	Certified (Active)		Certified (Inactive)		Subscriber (Non-Certified)		Trainee		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	53	50	11	3	0	0	0	0	64	53
2 West Kootenay - Boundary	78	67	11	9	1	2	0	0	90	78
3 North Okanagan	68	65	10	8	1	1	0	0	79	74
4 South Okanagan - Similkameen	150	154	19	20	0	0	2	1	171	175
5 Thompson	100	96	17	16	0	1	7	0	124	113
6 Fraser Valley	112	106	12	17	0	0	2	1	126	124
7 South Fraser Valley	349	324	39	44	6	2	20	9	414	379
8 Simon Fraser	288	248	25	30	3	3	17	7	333	288
9 Coast Garibaldi	40	45	4	5	0	0	0	1	44	51
10 Central Vancouver Island	128	113	34	36	1	1	0	2	163	152
11 Upper Island/Central Coast	71	75	9	8	1	0	1	0	82	83
12 Cariboo	33	35	8	1	0	0	0	0	41	36
13 North West	61	61	6	8	3	1	0	0	70	70
14 Peace Liard	33	32	8	7	0	0	1	0	42	39
15 Northern Interior	82	75	9	16	0	0	3	0	94	91
16 Vancouver	410	359	53	54	11	8	10	3	484	424
17 Burnaby	162	134	12	21	2	3	23	7	199	165
18 North Shore	153	129	20	17	0	1	1	0	174	147
19 Richmond	143	131	19	19	4	4	2	0	168	154
20 Capital	250	229	27	29	3	1	1	1	281	260
TOTAL	2,764	2,528	353	368	36	28	90	32	3,243	2,956

¹ Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Medical Laboratory Technologists (CSMLS Members)¹ in British Columbia
per 10,000 Population by Health Region by Membership Status
October 1995 and October 1997

Health Region	Certified (Active)		Certified (Inactive)		Subscriber (Non-Certified)		Trainee		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	6.91	6.28	1.43	0.38	0.00	0.00	0.00	0.00	8.35	6.66
2 West Kootenay - Boundary	9.80	8.23	1.38	1.11	0.13	0.25	0.00	0.00	11.30	9.58
3 North Okanagan	6.16	5.62	0.91	0.69	0.09	0.09	0.00	0.00	7.15	6.40
4 South Okanagan - Similkameen	6.97	6.87	0.88	0.89	0.00	0.00	0.09	0.04	7.95	7.81
5 Thompson	7.97	7.28	1.36	1.21	0.00	0.08	0.56	0.00	9.89	8.56
6 Fraser Valley	5.03	4.53	0.54	0.73	0.00	0.00	0.09	0.04	5.65	5.30
7 South Fraser Valley	6.70	5.89	0.75	0.80	0.12	0.04	0.38	0.16	7.94	6.89
8 Simon Fraser	9.95	8.09	0.86	0.98	0.10	0.10	0.59	0.23	11.51	9.40
9 Coast Garibaldi	5.72	5.98	0.57	0.66	0.00	0.00	0.00	0.13	6.29	6.78
10 Central Vancouver Island	5.63	4.76	1.50	1.52	0.04	0.04	0.00	0.08	7.17	6.40
11 Upper Island/Central Coast	6.18	6.25	0.78	0.67	0.09	0.00	0.09	0.00	7.14	6.91
12 Cariboo	4.71	4.68	1.14	0.13	0.00	0.00	0.00	0.00	5.85	4.81
13 North West	6.96	6.72	0.68	0.88	0.34	0.11	0.00	0.00	7.98	7.71
14 Peace Liard	5.29	4.91	1.28	1.07	0.00	0.00	0.16	0.00	6.73	5.99
15 Northern Interior	6.55	5.76	0.72	1.23	0.00	0.00	0.24	0.00	7.51	6.99
16 Vancouver	7.78	6.51	1.01	0.98	0.21	0.15	0.19	0.05	9.18	7.69
17 Burnaby	8.93	7.15	0.66	1.12	0.11	0.16	1.27	0.37	10.97	8.80
18 North Shore	8.86	7.30	1.16	0.96	0.00	0.06	0.06	0.00	10.08	8.32
19 Richmond	9.66	8.34	1.28	1.21	0.27	0.25	0.14	0.00	11.35	9.81
20 Capital	7.66	6.90	0.83	0.87	0.09	0.03	0.03	0.03	8.61	7.83
TOTAL	7.36	6.45	0.94	0.94	0.10	0.07	0.24	0.08	8.64	7.54

¹ Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

Table 1c
Average Annual Rate of Change¹: Medical Laboratory Technologists (CSMLS Members)²
in British Columbia by Health Region by Membership Status
October 1995 to October 1997

Health Region	Certified (Active)		Certified (Inactive)		Subscriber (Non-Certified)		Trainee		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	-2.99	-4.88	-49.23	-50.22	*	*	*	*	-9.37	-11.13
2 West Kootenay - Boundary	-7.62	-8.70	-9.94	-10.99	*	*	*	*	-7.19	-8.27
3 North Okanagan	-2.33	-4.65	-10.99	-13.11	*	*	*	*	-3.35	-5.65
4 South Okanagan - Similkameen	1.38	-0.75	2.71	0.56	*	*	*	*	1.21	-0.91
5 Thompson	-2.11	-4.67	-3.11	-5.65	*	*	*	*	-4.73	-7.22
6 Fraser Valley	-2.83	-5.24	19.93	16.96	*	*	*	*	-0.83	-3.29
7 South Fraser Valley	-3.80	-6.48	6.50	3.53	*	*	-34.07	-35.91	-4.50	-7.16
8 Simon Fraser	-7.51	-10.23	9.98	6.74	*	*	-37.06	-38.91	-7.29	-10.03
9 Coast Garibaldi	6.34	2.37	*	*	*	*	*	*	8.01	3.98
10 Central Vancouver Island	-6.30	-8.42	3.03	0.69	*	*	*	*	-3.58	-5.77
11 Upper Island/Central Coast	2.90	0.57	*	*	*	*	*	*	0.63	-1.65
12 Cariboo	3.12	-0.29	*	*	*	*	*	*	-6.56	-9.65
13 North West	0.00	-1.77	*	*	*	*	*	*	0.00	-1.77
14 Peace Liard	-1.59	-3.81	*	*	*	*	*	*	-3.79	-5.96
15 Northern Interior	-4.55	-6.53	*	*	*	*	*	*	-1.68	-3.72
16 Vancouver	-6.70	-8.84	0.98	-1.34	-15.31	-17.25	-46.64	-47.87	-6.67	-8.81
17 Burnaby	-9.43	-10.96	33.91	31.64	*	*	-46.24	-47.15	-9.31	-10.85
18 North Shore	-8.52	-9.61	-8.13	-9.22	*	*	*	*	-8.42	-9.51
19 Richmond	-4.47	-7.39	0.00	-3.06	*	*	*	*	-4.44	-7.36
20 Capital	-4.47	-5.33	3.80	2.87	*	*	*	*	-3.97	-4.83
TOTAL	-4.55	-6.70	2.19	-0.11	-12.29	-14.26	-41.70	-43.01	-4.72	-6.87

¹ A 23 month rate of change has been adjusted to an average annual figure.

² Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2a
Certified (Active) Medical Laboratory Technologists (CSMLS Members)¹ in British Columbia
by Health Region by Level of Certification
October 1995² and October 1997

Health Region	RT		ART		FCSLT		Unknown		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	51	47	2	2	0	0	0	1	53	50
2 West Kootenay - Boundary	73	63	5	4	0	0	0	0	78	67
3 North Okanagan	66	61	2	3	0	0	0	1	68	65
4 South Okanagan - Similkameen	134	136	16	17	0	0	0	1	150	154
5 Thompson	82	80	18	16	0	0	0	0	100	96
6 Fraser Valley	102	94	10	12	0	0	0	0	112	106
7 South Fraser Valley	309	290	38	33	1	0	1	1	349	324
8 Simon Fraser	258	216	30	29	0	0	0	3	288	248
9 Coast Garibaldi	38	43	2	2	0	0	0	0	40	45
10 Central Vancouver Island	111	96	16	17	0	0	1	0	128	113
11 Upper Island/Central Coast	66	68	4	5	0	0	1	2	71	75
12 Cariboo	33	35	0	0	0	0	0	0	33	35
13 North West	59	59	1	2	0	0	1	0	61	61
14 Peace Liard	33	32	0	0	0	0	0	0	33	32
15 Northern Interior	76	70	5	5	0	0	1	0	82	75
16 Vancouver	356	303	52	51	1	1	1	4	410	359
17 Burnaby	138	112	22	19	2	1	0	2	162	134
18 North Shore	126	108	27	20	0	0	0	1	153	129
19 Richmond	128	115	15	15	0	0	0	1	143	131
20 Capital	222	200	28	26	0	0	0	3	250	229
TOTAL	2,461	2,228	293	278	4	2	6	20	2,764	2,528

¹ Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 2b
Certified (Active) Medical Laboratory Technologists (CSMLS Members)¹ in British Columbia
per 10,000 Population by Health Region by Level of Certification
October 1995 and October 1997

Health Region	RT		ART		FCSLT		Unknown		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	6.65	5.90	0.26	0.25	0.00	0.00	0.00	0.13	6.91	6.28
2 West Kootenay - Boundary	9.17	7.74	0.63	0.49	0.00	0.00	0.00	0.00	9.80	8.23
3 North Okanagan	5.98	5.28	0.18	0.26	0.00	0.00	0.00	0.09	6.16	5.62
4 South Okanagan - Similkamcen	6.23	6.07	0.74	0.76	0.00	0.00	0.00	0.04	6.97	6.87
5 Thompson	6.54	6.06	1.44	1.21	0.00	0.00	0.00	0.00	7.97	7.28
6 Fraser Valley	4.58	4.02	0.45	0.51	0.00	0.00	0.00	0.00	5.03	4.53
7 South Fraser Valley	5.93	5.27	0.73	0.60	0.02	0.00	0.02	0.02	6.70	5.89
8 Simon Fraser	8.92	7.05	1.04	0.95	0.00	0.00	0.00	0.10	9.95	8.09
9 Coast Garibaldi	5.43	5.71	0.29	0.27	0.00	0.00	0.00	0.00	5.72	5.98
10 Central Vancouver Island	4.88	4.04	0.70	0.72	0.00	0.00	0.04	0.00	5.63	4.76
11 Upper Island/Central Coast	5.74	5.66	0.35	0.42	0.00	0.00	0.09	0.17	6.18	6.25
12 Cariboo	4.71	4.68	0.00	0.00	0.00	0.00	0.00	0.00	4.71	4.68
13 North West	6.73	6.50	0.11	0.22	0.00	0.00	0.11	0.00	6.96	6.72
14 Peace Liard	5.29	4.91	0.00	0.00	0.00	0.00	0.00	0.00	5.29	4.91
15 Northern Interior	6.07	5.37	0.40	0.38	0.00	0.00	0.08	0.00	6.55	5.76
16 Vancouver	6.75	5.50	0.99	0.93	0.02	0.02	0.02	0.07	7.78	6.51
17 Burnaby	7.61	5.98	1.21	1.01	0.11	0.05	0.00	0.11	8.93	7.15
18 North Shore	7.30	6.11	1.56	1.13	0.00	0.00	0.00	0.06	8.86	7.30
19 Richmond	8.65	7.32	1.01	0.96	0.00	0.00	0.00	0.06	9.66	8.34
20 Capital	6.80	6.02	0.86	0.78	0.00	0.00	0.00	0.09	7.66	6.90
TOTAL	6.56	5.68	0.78	0.71	0.01	0.01	0.02	0.05	7.36	6.45

¹ Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

Table 2c
Average Annual Rate of Change¹: Certified (Active) Medical Laboratory Technologists (CSMLS Members)²
in British Columbia by Health Region by Level of Certification
October 1995 to October 1997

Health Region	RT		ART		FCSLT		Unknown		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	-4.17	-6.03	*	*	*	*	*	*	-2.99	-4.88
2 West Kootenay - Boundary	-7.40	-8.48	*	*	*	*	*	*	-7.62	-8.70
3 North Okanagan	-4.03	-6.31	*	*	*	*	*	*	-2.33	-4.65
4 South Okanagan - Similkameen	0.78	-1.34	3.21	1.05	*	*	*	*	1.38	-0.75
5 Thompson	-1.28	-3.86	-5.96	-8.42	*	*	*	*	-2.11	-4.67
6 Fraser Valley	-4.17	-6.55	9.98	7.25	*	*	*	*	-2.83	-5.24
7 South Fraser Valley	-3.26	-5.95	-7.10	-9.68	*	*	*	*	-3.80	-6.48
8 Simon Fraser	-8.85	-11.54	-1.75	-4.65	*	*	*	*	-7.51	-10.23
9 Coast Garibaldi	6.66	2.68	*	*	*	*	*	*	6.34	2.37
10 Central Vancouver Island	-7.29	-9.40	3.21	0.87	*	*	*	*	-6.30	-8.42
11 Upper Island/Central Coast	1.57	-0.73	*	*	*	*	*	*	2.90	0.57
12 Cariboo	3.12	-0.29	*	*	*	*	*	*	3.12	-0.29
13 North West	0.00	-1.77	*	*	*	*	*	*	0.00	-1.77
14 Peace Liard	-1.59	-3.81	*	*	*	*	*	*	-1.59	-3.81
15 Northern Interior	-4.20	-6.19	*	*	*	*	*	*	-4.55	-6.53
16 Vancouver	-8.07	-10.18	-1.01	-3.28	*	*	*	*	-6.70	-8.84
17 Burnaby	-10.32	-11.84	-7.36	-8.93	*	*	*	*	-9.43	-10.96
18 North Shore	-7.73	-8.83	-14.49	-15.51	*	*	*	*	-8.52	-9.61
19 Richmond	-5.43	-8.32	0.00	-3.06	*	*	*	*	-4.47	-7.39
20 Capital	-5.30	-6.15	-3.79	-4.65	*	*	*	*	-4.47	-5.33
TOTAL	-5.06	-7.20	-2.70	-4.90	*	*	*	*	-4.55	-6.70

¹ A 23 month rate of change has been adjusted to an average annual figure.

² Membership in the Canadian Society for Medical Laboratory Science (CSMLS) is voluntary.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

MEDICAL RADIATION TECHNOLOGISTS

Definition: A medical radiation technologist

...operates radiographic, radiation therapy, and magnetic resonance equipment to administer radiation treatment and produce images of body structures for the diagnosis and treatment of injury and disease.

Four major areas for employment are diagnostic radiography, radiation therapy, nuclear medicine and magnetic resonance imaging.

(I) Diagnostic radiographers perform some or all of the following duties:

- (a) operate X-ray, radiographic, and fluoroscopic equipment, specialised CT scanners, and mammography units to produce radiographs or images of body structures for diagnosis by radiologists of disease or injury;
- (b) record and process patient data;
- (c) perform scheduled maintenance and minor emergency repairs on radiographic equipment;
- (d) may train and supervise student radiographers or supervise other radiography technologists.¹

(II) Radiation therapists perform some or all of the following duties:

- (a) operate linear accelerators, cobalt 60, X-ray, and other radiation therapy equipment to administer radiation treatment prescribed by radiation oncologists;
- (b) check radiation therapy equipment to ensure proper operation;
- (c) assist radiation oncologists and clinical physicians with preparation of radiation treatment plans;
- (d) assist in the preparation of sealed radioactive materials such as cobalt, radium, caesium, and isotopes and the construction of devices such as plaster casts and acrylic moulds to assist with administration of radiation treatment;
- (e) may train and supervise student radiotherapy technologists or supervise other radiotherapy technologists.¹

(III) Nuclear medicine technologists perform some or all of the following duties:

- (a) prepare radiopharmaceuticals, such as radionuclides and other materials and administer them to patients or to biological samples;
- (b) operate radiation detection equipment, such as gamma cameras, scanners, scintillation counters and ionisation chambers, to acquire data for use by nuclear medicine physicians in the diagnosis of disease;
- (c) perform diagnostic procedures using radioactive materials on biological specimens, such as blood, urine and faeces;
- (d) record and process results of procedures;
- (e) check equipment to ensure proper operation;
- (f) may train and supervise student nuclear medicine technologists or supervise other nuclear medicine technologists.¹

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3215, Ottawa: Employment and Immigration Canada.

(IV) Magnetic resonance technologists perform some or all of the following duties:

- (a) operate magnetic resonance imaging (MRI) scanners which use magnetism, radio waves and computers to produce images of the cardiovascular system, tumours (especially brain and spinal column), and soft tissues (such as muscles, tendons, or arteries), and for studying body chemistry and functions;
- (b) explain procedure to the patient, monitor patient during scan, and provide comfort and emotional support to patient;
- (c) ensure safety of patients and staff around the magnetic field;
- (d) contribute to patient education.²

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the British Columbia Association of Medical Radiation Technologists is voluntary. However, BCAMRT membership is restricted to those technologists who pass a certification examination administered by the Canadian Association of Medical Radiation Technologists or an equivalent examination.

Date of Record: February 1998.

Source of Data: British Columbia Association of Medical Radiation Technologists (BCAMRT).

Preparation and Updating:

The tables, derived solely from the membership data supplied by the BCAMRT, include qualified members with a British Columbia address at the date of record. *Associate members* who may or may not be working in the field but do not qualify for full BCAMRT membership, and *transferred members* who no longer work in B.C., are excluded from all tables. The data presented in these tables are based on employment address when employment address is available. In 1997, employment address was available for 96% of employed BCAMRT members. Home address is used for the remainder.

In past years, *ROLLCALL* has reported the number of technologists also qualified to work as diagnostic medical sonographers. The BCAMRT again did not provide members' names this year; this prevented cross-referencing between the respective professions.

Definition of Terms:

1. Membership Category

The BCAMRT was able to supply information by membership category this year which was not supplied in the past, so for the first time *ROLLCALL 97* reports the number and number per 10,000 population of medical radiation technologists at the date of record by membership category in Tables 1a and 1b.

² Adapted from the description of Magnetic Resonance Technologists provided on the Canadian Association of Medical Radiation Technologists (CAMRT) web site (<http://www.camrt.ca/mrtc/mrtech.htm>).

The membership categories used by the BCAMRT for qualified members are:

(a) *Member*

A medical radiation technologist who is a practising member of the Canadian Association of Medical Radiation Technologists (CAMRT) by virtue of having successfully passed a qualifying certification examination set by the CAMRT.³

(b) *Senior Member*

A medical radiation technologist who has been a member of the CAMRT for thirty years and a member of the BCAMRT for the last ten of those years.³

(c) *Non-Practising Member*

A medical radiation technologist who is no longer involved in the practice of the profession but who wishes to maintain their relationship with the BCAMRT. The membership category of non-practising is new in 1997.⁴

As mentioned above, *Associate members* who may or may not be working in the field but do not qualify for full BCAMRT membership, and *transferred members* who no longer work in B.C., are excluded.

2. Age

Table 2 shows age information as provided by BCAMRT. This was available for only 82% of technologists. The data in this table are grouped according to standard age categories developed and used by Statistics Canada. Information regarding the sex distribution of medical radiation technologists is not available.

3. Employment Discipline

Total number and number per 10,000 of BCAMRT members at the date of record are presented in Tables 3a and 3b by employment discipline (former Tables 1a and 1b in previous editions of *ROLLCALL*). Magnetic resonance imaging became a distinct discipline in 1996. As a result, comparisons with 1995 data are not possible and are not presented.

The disciplines used in the table are:

- (a) Diagnostic Radiography;
- (b) Radiation Therapy;
- (c) Nuclear Medicine;
- (d) Magnetic Resonance Imaging.

Medical radiation technologists are classified in the tables according to their last known employment discipline supported by the necessary qualifications.

³ Adapted from the Bylaws of the BCAMRT, dated June 1997.

⁴ Adapted from the description of the membership category of Non-Practising provided on the CAMRT web site (<http://www.camrt.ca/mrtc/npmember.htm>).

4. Employment Status

Information about employment status was provided by the BCAMRT. Table 4 shows this information for BCAMRT members using the following categories:

- (a) Full-time;
- (b) Part-time;
- (c) Casual/Temporary/Relief;
- (d) Leave of Absence;
- (e) Unknown.

5. Employment Setting

Information about employment setting was provided by the BCAMRT. Table 5 shows this information for employed BCAMRT members using the following categories:

- (a) Hospital;
- (b) Laboratory/Clinic;
- (c) Educational Facility;
- (d) Other.

6. Employment Position

For the first time, *ROLLCALL 97* reports the employment position of BCAMRT members. This is reported in Table 6 by health region for employed BCAMRT members using the following categories:

- (a) Director/Supervisor;
- (b) Coordinator/Manager;
- (c) Chief/Charge/Senior/Head Technologist;
- (d) Technologist/Therapist;
- (e) Instructor;
- (f) Other.

Table 1a
Medical Radiation Technologists¹ in British Columbia
by Health Region by Membership Category²
February 1998

Health Region	Members/ Senior Members ³	Non-Practising	Total
1 East Kootenay	34	3	37
2 West Kootenay - Boundary	37	0	37
3 North Okanagan	37	1	38
4 South Okanagan - Similkameen	76	0	76
5 Thompson	55	2	57
6 Fraser Valley	58	2	60
7 South Fraser Valley	147	6	153
8 Simon Fraser	104	2	106
9 Coast Garibaldi	27	0	27
10 Central Vancouver Island	70	2	72
11 Upper Island/Central Coast	34	0	34
12 Cariboo	22	0	22
13 North West	33	1	34
14 Peace Liard	24	0	24
15 Northern Interior	36	1	37
16 Vancouver	412	11	423
17 Burnaby	58	6	64
18 North Shore	53	1	54
19 Richmond	32	0	32
20 Capital	160	1	161
TOTAL	1,509	39	1,548

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Data by membership category was not available in 1995, so no comparisons are presented.

³ Includes 11 MRT's registered as Senior Members.

Table 1b
Medical Radiation Technologists¹ in British Columbia
per 10,000 Population by Health Region by Membership Category²
February 1998

Health Region	Members/ Senior Members ³	Non-Practising	Total
1 East Kootenay	4.27	0.38	4.65
2 West Kootenay - Boundary	4.54	0.00	4.54
3 North Okanagan	3.20	0.09	3.29
4 South Okanagan - Similkameen	3.39	0.00	3.39
5 Thompson	4.17	0.15	4.32
6 Fraser Valley	2.48	0.09	2.57
7 South Fraser Valley	2.67	0.11	2.78
8 Simon Fraser	3.39	0.07	3.46
9 Coast Garibaldi	3.59	0.00	3.59
10 Central Vancouver Island	2.95	0.08	3.03
11 Upper Island/Central Coast	2.83	0.00	2.83
12 Cariboo	2.94	0.00	2.94
13 North West	3.64	0.11	3.75
14 Peace Liard	3.68	0.00	3.68
15 Northern Interior	2.76	0.08	2.84
16 Vancouver	7.47	0.20	7.67
17 Burnaby	3.09	0.32	3.41
18 North Shore	3.00	0.06	3.06
19 Richmond	2.04	0.00	2.04
20 Capital	4.82	0.03	4.85
TOTAL	3.85	0.10	3.95

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Data by membership category was not available in 1995, so no comparisons are presented.

³ Includes 11 MRT's registered as Senior Members.

Table 2
Medical Radiation Technologists^{1,2} in British Columbia
by Health Region by Age
February 1998

Health Region	< 25	25-34	35-44	45-54	55-64	65 +	Subtotal	Unknown	Total
1 East Kootenay	0	8	12	5	4	0	29	8	37
2 West Kootenay - Boundary	0	7	9	10	2	0	28	9	37
3 North Okanagan	2	7	10	10	2	0	31	7	38
4 South Okanagan - Similkameen	1	25	16	12	4	0	58	18	76
5 Thompson	3	14	17	17	1	0	52	5	57
6 Fraser Valley	2	15	19	11	1	0	48	12	60
7 South Fraser Valley	2	52	44	24	7	0	129	24	153
8 Simon Fraser	6	34	34	17	5	0	96	10	106
9 Coast Garibaldi	0	8	7	7	2	0	24	3	27
10 Central Vancouver Island	3	11	20	20	5	0	59	13	72
11 Upper Island/Central Coast	1	6	8	9	0	0	24	10	34
12 Cariboo	0	1	7	6	2	0	16	6	22
13 North West	1	8	4	8	2	0	23	11	34
14 Peace Liard	1	9	7	1	1	1	20	4	24
15 Northern Interior	0	10	8	6	2	0	26	11	37
16 Vancouver	12	120	118	67	16	0	333	90	423
17 Burnaby	1	21	21	11	3	0	57	7	64
18 North Shore	3	12	21	6	7	0	49	5	54
19 Richmond	0	10	8	7	2	0	27	5	32
20 Capital	4	39	42	46	5	0	136	25	161
TOTAL	42	417	432	300	73	1	1,265	283	1,548

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Includes Members, Senior Members and Non-Practising MRT's.

Table 3
Medical Radiation Technologists (BCAMRT Members)^{1,2} in British Columbia
by Health Region by Employment Discipline
February 1998³

Health Region	Diagnostic Radiography	Radiation Therapy	Nuclear Medicine	Magnetic Resonance Imaging	Total
1 East Kootenay	31	0	3	0	34
2 West Kootenay - Boundary	34	0	3	0	37
3 North Okanagan	34	0	3	0	37
4 South Okanagan - Similkameen	66	1	9	0	76
5 Thompson	50	0	5	0	55
6 Fraser Valley	58	0	0	0	58
7 South Fraser Valley	101	32	14	0	147
8 Simon Fraser	91	0	13	0	104
9 Coast Garibaldi	27	0	0	0	27
10 Central Vancouver Island	65	0	5	0	70
11 Upper Island/Central Coast	34	0	0	0	34
12 Cariboo	22	0	0	0	22
13 North West	29	0	4	0	33
14 Peace Liard	23	0	1	0	24
15 Northern Interior	32	0	3	1	36
16 Vancouver	267	77	49	19	412
17 Burnaby	49	0	9	0	58
18 North Shore	43	0	9	1	53
19 Richmond	28	0	3	1	32
20 Capital	107	29	21	3	160
TOTAL	1,191	139	154	25	1,509

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Excludes 39 Non-Practising MRT's.

³ Due to the addition in 1996 of magnetic resonance imaging (MRI) as a discipline for MRT's, comparable 1995 data are not available.

Table 4
Medical Radiation Technologists (BCAMRT Members)^{1,2} in British Columbia
by Health Region by Employment Status
February 1998

Health Region	Full-Time	Part-Time	Casual/ Temp/ Relief	Leave of Absence	Unknown	Total
1 East Kootenay	14	10	8	0	2	34
2 West Kootenay - Boundary	12	15	9	0	1	37
3 North Okanagan	14	16	7	0	0	37
4 South Okanagan - Similkameen	36	17	17	0	6	76
5 Thompson	21	17	16	0	1	55
6 Fraser Valley	18	28	9	0	3	58
7 South Fraser Valley	75	40	21	0	11	147
8 Simon Fraser	46	40	12	1	5	104
9 Coast Garibaldi	6	14	6	0	1	27
10 Central Vancouver Island	26	24	15	1	4	70
11 Upper Island/Central Coast	11	11	11	0	1	34
12 Cariboo	6	9	5	0	2	22
13 North West	7	11	9	2	4	33
14 Peace Liard	7	11	5	0	1	24
15 Northern Interior	16	9	9	0	2	36
16 Vancouver	242	92	68	4	6	412
17 Burnaby	34	13	10	1	0	58
18 North Shore	29	13	9	0	2	53
19 Richmond	21	6	5	0	0	32
20 Capital	75	40	26	1	18	160
TOTAL	716	436	277	10	70	1,509

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Excludes 39 Non-Practising MRT's.

Table 5
Medical Radiation Technologists (Employed BCAMRT Members)^{1,2,3} in British Columbia
by Health Region by Employment Setting⁴
February 1998

Health Region	Hospital	Laboratory/ Clinic	Educational Facility	Other	Total
1 East Kootenay	32	0	0	0	32
2 West Kootenay - Boundary	31	3	0	2	36
3 North Okanagan	33	4	0	0	37
4 South Okanagan - Similkameen	58	10	0	2	70
5 Thompson	50	4	0	0	54
6 Fraser Valley	42	12	0	1	55
7 South Fraser Valley	121	15	0	0	136
8 Simon Fraser	90	8	0	0	98
9 Coast Garibaldi	26	0	0	0	26
10 Central Vancouver Island	56	9	0	0	65
11 Upper Island/Central Coast	33	0	0	0	33
12 Cariboo	20	0	0	0	20
13 North West	27	0	0	0	27
14 Peace Liard	23	0	0	0	23
15 Northern Interior	27	6	0	1	34
16 Vancouver	351	46	3	2	402
17 Burnaby	38	11	6	2	57
18 North Shore	39	12	0	0	51
19 Richmond	23	6	0	3	32
20 Capital	115	25	0	1	141
TOTAL	1,235	171	9	14	1,429

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Excludes 39 Non-Practising MRT's.

³ Excludes 10 MRT's who are on leave of absence and 70 who did not indicate their employment status.

⁴ There are no MRT's with unknown employment setting.

Table 6
Medical Radiation Technologists (Employed BCAMRT Members)^{1,2,3} in British Columbia
by Health Region by Employment Position⁴
February 1998

Health Region	Director/ Supervisor	Coordinator/ Manager	Chief/Charge/ Senior/Head Technologist	Technologist/ Therapist	Instructor	Other ⁵	Total
1 East Kootenay	0	1	6	25	0	0	32
2 West Kootenay - Boundary	0	1	8	27	0	0	36
3 North Okanagan	2	2	2	31	0	0	37
4 South Okanagan - Similkameen	7	2	3	55	1	2	70
5 Thompson	3	1	9	40	1	0	54
6 Fraser Valley	2	2	2	49	0	0	55
7 South Fraser Valley	8	3	11	112	0	2	136
8 Simon Fraser	6	6	2	83	1	0	98
9 Coast Garibaldi	0	2	2	22	0	0	26
10 Central Vancouver Island	0	1	10	54	0	0	65
11 Upper Island/Central Coast	0	3	4	26	0	0	33
12 Cariboo	0	1	1	18	0	0	20
13 North West	0	1	6	20	0	0	27
14 Peace Liard	2	0	2	19	0	0	23
15 Northern Interior	1	0	7	25	1	0	34
16 Vancouver	14	12	29	338	5	4	402
17 Burnaby	7	1	2	39	7	1	57
18 North Shore	3	0	6	41	1	0	51
19 Richmond	1	1	3	27	0	0	32
20 Capital	6	1	10	121	1	2	141
TOTAL	62	41	125	1,172	18	11	1,429

¹ Membership in the B.C. Association of Medical Radiation Technologists (BCAMRT) is voluntary.

² Excludes 39 Non-Practising MRT's.

³ Excludes 10 MRT's who are on leave of absence and 70 who did not indicate their employment status.

⁴ There are no MRT's with unknown employment position.

⁵ Includes 1 MRT who indicated "CT Applications" as his/her employment position, 1 who indicated "NM Product Specialist", 1 who indicated "Physics Asst", 3 who indicated "Process Leader", 1 who indicated "Radiation Process Leader", 1 who indicated "Prov. Prof Practice Leader", 2 who indicated "Rad Protection Officer", and 1 who indicated "Research Outcome Analyst".

RESPIRATORY THERAPISTS

Definition: A respiratory therapist

...assists physicians in the diagnosis, treatment, and care of patients with respiratory and cardiopulmonary disorders.

Respiratory therapists perform some or all of the following duties:

- (a) perform diagnostic tests, such as arterial blood gas analysis and cardiopulmonary functions tests;
- (b) operate and monitor respiratory equipment to administer treatments such as oxygen, oxygen-air mixtures, humidified air, or medications;
- (c) perform artificial respiration and external cardiac massage;
- (d) maintain and test diagnostic and therapeutic equipment;
- (e) supervise and train student or other respiratory therapists;
- (f) participate in research related to cardiac and pulmonary disorders.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in British Columbia Society of Respiratory Therapists is voluntary. However, registered members have exclusive use of the titles: *Registered Respiratory Therapist*, *Registered Respiratory Technologist* and *RRT*.

Date of Record: December 1995 and March 1998.

Source of Data: British Columbia Society of Respiratory Therapists (BCSRT).

Preparation and Updating:

The table, which is derived from the membership roster of the BCSRT, includes active members of the BCSRT who reported a British Columbia address at the date of record. Data presented in the table are based on home address for all respiratory therapists.

Information on employment setting was not available from the BCSRT this year, so Table 2, which appeared in 1995, is not included.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3214, Ottawa: Employment and Immigration Canada.

Table 1
Respiratory Therapists (BCSRT Members)^{1,2} in British Columbia
by Health Region
December 1995 and March 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ³	
	1995	1998	1995	1998	Number ⁴	Ratio ⁵
1 East Kootenay	2	2	0.26	0.25	*	*
2 West Kootenay - Boundary	3	3	0.38	0.37	*	*
3 North Okanagan	11	14	1.00	1.21	11.31	9.05
4 South Okanagan - Similkameen	28	35	1.30	1.56	10.43	8.45
5 Thompson	32	44	2.55	3.33	15.20	12.63
6 Fraser Valley	8	12	0.36	0.51	*	*
7 South Fraser Valley	38	56	0.73	1.02	18.81	15.99
8 Simon Fraser	31	45	1.07	1.47	18.01	15.04
9 Coast Garibaldi	2	5	0.29	0.66	*	*
10 Central Vancouver Island	16	24	0.70	1.01	19.75	17.43
11 Upper Island/Central Coast	3	2	0.26	0.17	*	*
12 Cariboo	0	1	0.00	0.13	*	*
13 North West	1	1	0.11	0.11	*	*
14 Peace Liard	6	7	0.96	1.07	*	*
15 Northern Interior	8	9	0.64	0.69	*	*
16 Vancouver	63	83	1.19	1.51	13.04	10.82
17 Burnaby	20	18	1.10	0.96	-4.57	-5.95
18 North Shore	5	5	0.29	0.28	*	*
19 Richmond	14	15	0.95	0.96	3.11	0.42
20 Capital	51	49	1.56	1.48	-1.76	-2.51
TOTAL	342	430	0.91	1.10	10.71	8.58

¹ Membership in the B.C. Society of Respiratory Therapists (BCSRT) is voluntary.

² Excludes 10 therapists with unknown location in 1995.

³ A 27 month rate of change has been adjusted to an average annual figure.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

V. MEDICAL AND TREATMENT SERVICES

CHIROPRACTORS

Definition: A chiropractor

...diagnoses and treats patients' disorders of the spine and other body joints by adjusting the spinal column or through other corrective manipulation.

Chiropractors perform some or all of the following duties:

- (a) take patients' case history, conduct examinations, observe patients, and perform or order x-rays and other tests to diagnose patients' conditions;
- (b) diagnose disorders of the spine and other body joints;
- (c) treat those patients whose symptoms result from abnormal musculoskeletal conditions or joint mechanics through the corrective manipulation of the spinal column or other joints and may use such additional treatments as heat, light and massage;
- (d) advise patients on corrective exercises, lifestyle and nutrition.¹

Governing Statute: Chiropractors Act, R.S.B.C. 1996, Chapter 48; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: British Columbia College of Chiropractors. In order to practise as a chiropractor in British Columbia, it is necessary to hold a certificate of registration from the British Columbia College of Chiropractors.

Date of Record: February 1996 and May 1998.

Source of Data: British Columbia College of Chiropractors.

Preparation and Updating:

The table, derived from the Register of the British Columbia College of Chiropractors, includes registered chiropractors who reported a British Columbia address at the date of record. Data presented in the table are based on employment address for the majority of chiropractors. Precise percentages of home versus employment or other address are not known.

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3122, Ottawa: Employment and Immigration Canada.

Table 1
Registered Chiropractors in British Columbia
by Health Region
February 1996 and May 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1996	1998	1996	1998	Number ²	Ratio ³
1 East Kootenay	12	14	1.57	1.76	7.09	5.32
2 West Kootenay - Boundary	15	17	1.88	2.09	5.72	4.67
3 North Okanagan	20	27	1.81	2.33	14.27	11.95
4 South Okanagan - Similkameen	46	52	2.14	2.32	5.60	3.71
5 Thompson	13	19	1.04	1.44	18.37	15.73
6 Fraser Valley	29	32	1.30	1.37	4.47	2.26
7 South Fraser Valley	63	69	1.21	1.25	4.13	1.65
8 Simon Fraser	38	47	1.31	1.53	9.91	7.14
9 Coast Garibaldi	9	13	1.29	1.73	*	*
10 Central Vancouver Island	37	42	1.63	1.77	5.80	3.75
11 Upper Island/Central Coast	20	24	1.74	2.00	8.44	6.34
12 Cariboo	7	8	1.00	1.07	*	*
13 North West	8	8	0.91	0.88	*	*
14 Peace Liard	8	7	1.28	1.07	*	*
15 Northern Interior	7	8	0.56	0.61	*	*
16 Vancouver	89	99	1.69	1.80	4.85	2.79
17 Burnaby	20	25	1.10	1.33	10.43	8.83
18 North Shore	32	36	1.85	2.04	5.37	4.30
19 Richmond	11	9	0.74	0.57	-8.53	-10.92
20 Capital	73	90	2.24	2.71	9.75	8.91
TOTAL	557	646	1.48	1.65	6.81	4.76

¹ A 27 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

EMERGENCY MEDICAL ASSISTANTS

Definition: An emergency medical assistant

...provides first aid, nursing, and medical services to minimise disability or loss of life in emergency situations. An emergency medical assistant (EMA) will be skilled in the areas of first aid, general ambulance practices and procedures, basic nursing, patient assessment, specialised diagnostics, and treatments.

An emergency medical assistant first responder (EMA FR) may be employed with a police force, a fire department, or an agency approved by the Emergency Health Services Commission (EHSC) such as a Native Band Council. All other EMA's are employed either with the EHSC or with a contractor who has a contract for service with the EHSC.

Emergency medical assistants are categorised as follows:

- (a) *Emergency Medical Assistant First Responder (EMA FR)*
Receive 4 to 32 hours of training. Acting as an EMA is generally not a primary duty.
- (b) *Emergency Medical Assistant First Aid (EMA FA)*
Receive approximately 70 hours of training. Many EMA FA's eventually receive the necessary training, mostly related to ambulance operation, to move to EMA 1 status.
- (c) *Emergency Medical Assistant 1 (EMA 1)*
Receive approximately 80 hours of training. An EMA 1 candidate must have a secondary school education and an Industrial First Aid (IFA) certificate. An EMA 1 is expected to work to strict protocol. He/she will make only limited decisions about patient management.
- (d) *Emergency Medical Assistant 2 (EMA 2)*
Receive 240 hours of training. An EMA 2 candidate must have successfully completed EMA 1 training. EMA 2 training is focused on developing patient assessment skills to a level where the attendant knows why certain measures are taken, and how certain conditions can worsen or improve depending on actions taken. These improved assessment skills assist the EMA 2 in revealing underlying conditions which may not otherwise be discovered.
- (e) *Emergency Medical Assistant 3 - Advanced Life Support (EMA 3 (ALS))*
Receive 56 weeks of training. A candidate for EMA 3 (ALS) must have an EMA 2 licence and three years of full-time ambulance experience.
- (f) *Emergency Medical Assistant 3 - Infant Transport Team (EMA 3 (ITT))*
Receive 18 months of training. An EMA 3 (ITT) candidate must have an EMA 2 licence and three years of full-time ambulance experience. EMA 3 (ITT)'s are only employed in Vancouver, and are mostly involved in hospital to hospital transport.¹

¹ Adapted from the Health Emergency Act, R.S.B.C.1996, Chapter 182, and from information provided by the Emergency Medical Assistants Licensing Board, Ministry of Health, Province of British Columbia, January 1994.

Governing Statute:	Health Emergency Act, R.S.B.C. 1996, Chapter 182; administered by the Ministry of Health and Ministry Responsible for Seniors.
Governing Body:	Emergency Medical Assistants Licensing Board (EMALB). In order to practise as an emergency medical assistant in British Columbia, it is necessary to be licensed by the Emergency Medical Assistants Licensing Board. Licensed emergency medical assistants have exclusive use of the title: <i>emergency medical assistant</i> .
Dates of Record:	January 1996 and December 1997 (all EMA's except EMA FR's); December 1995 and December 1997 (EMA FR's).
Source of Data:	Emergency Medical Assistants Licensing Board (EMALB), B.C. Ministry of Health.

Preparation and Updating:

The tables, prepared from registration data maintained by the EMALB, include only *licensed* emergency medical assistants who reported a British Columbia address at the date of record. Data presented in the tables are based on employment address for all emergency medical assistants.

Definition of Terms:

A) Emergency Medical Assistants

1. Licence Category

Tables 1a and 1b show the total number of EMA's and the number of EMA's per 10,000 population in British Columbia based on their licence category, excluding the category EMA FR. The tables include EMA's who were British Columbia residents at the date of record. Licence categories are as follows:

- (a) Emergency Medical Assistant - First Aid (EMA FA);
- (b) Emergency Medical Assistant 1 (EMA 1);
- (c) Emergency Medical Assistant 2 (EMA 2);
- (d) Emergency Medical Assistant 3 - Advanced Life Support (EMA 3 (ALS));
- (e) Emergency Medical Assistant 3 - Infant Transport Team (EMA 3 (ITT)).

Table 1c reports the average annual rates of change in the number of EMA's and in the number of EMA's per 10,000 population in British Columbia.

2. Age and Sex

Age and sex information on emergency medical assistants, derived from the registration database of the Emergency Medical Assistants Licensing Board, is reported in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 presents employment status of emergency medical assistants as reported to the EMALB.

B) Emergency Medical Assistant - First Responders

1. Level of Training

Tables 1a and 1b present the number and number per 10,000 of EMA FR's in British Columbia by level of training. Table 1c shows the average annual rates of change in these numbers. The required skills for the three levels of training are as follows:

(a) *Level 1*

Basic initial assessment and management, including scene assessment, spine immobilisation, opening and maintaining an airway, assessment of breathing adequacy and ventilation by mouth to pocket mask, management of head and neck injuries, chest injuries, and fractures and dislocations, until more qualified EMA help becomes available.

(b) *Level 2*

Level 1 plus recognition and treatment of abdominal and burn injuries, and knowledge and skill in more advanced spine, airway, and breathing management techniques.

(c) *Level 3*

Levels 1 and 2 plus knowledge and skill in handling medical and environmental emergencies.

2. Age and Sex

Age and sex information for first responders, as derived from the registration database of the EMALB, is reported in Table 2. Age information reported in this table is grouped according to the standard age categories used by Statistics Canada.

3. Place of Employment

Table 3 presents place of employment information for first responders in British Columbia. The categories are as follows:

- (a) Fire Departments;
- (b) Police Departments;
- (c) Other Agency.

Table 1a
Emergency Medical Assistants in British Columbia
by Health Region by Licence Category
January 1996 and December 1997

Health Region	EMA FA		EMA 1		EMA 2		EMA 3 (ALS)		EMA 3 (ITT)		Total	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	14	16	99	100	28	22	0	0	0	0	141	138
2 West Kootenay - Boundary	31	31	101	93	36	28	0	0	0	0	168	152
3 North Okanagan	13	9	62	57	27	27	0	0	0	0	102	93
4 South Okanagan - Similkameen	14	22	103	86	35	36	14	19	0	0	166	163
5 Thompson	31	28	122	125	29	28	15	14	0	0	197	195
6 Fraser Valley	5	3	67	61	40	38	8	9	0	0	120	111
7 South Fraser Valley	0	1	8	27	94	92	8	8	0	0	110	128
8 Simon Fraser	0	0	9	11	64	68	7	7	0	0	80	86
9 Coast Garibaldi	16	6	86	96	27	22	0	0	0	0	129	124
10 Central Vancouver Island	28	36	134	129	61	61	1	0	0	0	224	226
11 Upper Island/Central Coast	52	50	132	128	32	27	0	0	0	0	216	205
12 Cariboo	18	19	62	54	22	20	0	0	0	0	102	93
13 North West	46	43	140	129	13	14	0	0	0	0	199	186
14 Peace Liard	25	44	76	70	15	8	0	0	0	0	116	122
15 Northern Interior	31	50	122	106	27	25	6	11	0	0	186	192
16 Vancouver	0	0	18	45	120	138	32	25	19	19	189	227
17 Burnaby	0	0	0	2	15	13	0	0	0	0	15	15
18 North Shore	2	1	27	39	36	34	6	8	0	0	71	82
19 Richmond	0	0	4	4	21	21	8	9	0	0	33	34
20 Capital	16	29	79	77	66	66	29	29	0	0	190	201
TOTAL	342	388	1,451	1,439	808	788	134	139	19	19	2,754	2,773

Table 1b
Emergency Medical Assistants in British Columbia
per 10,000 Population by Health Region by Licence Category
January 1996 and December 1997

Health Region	EMA FA		EMA 1		EMA 2		EMA 3 (ALS)		EMA 3 (ITT)		Total	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	1.83	2.01	12.91	12.56	3.65	2.76	0.00	0.00	0.00	0.00	18.39	17.33
2 West Kootenay - Boundary	3.89	3.81	12.68	11.42	4.52	3.44	0.00	0.00	0.00	0.00	21.10	18.67
3 North Okanagan	1.18	0.78	5.62	4.93	2.45	2.33	0.00	0.00	0.00	0.00	9.24	8.04
4 South Okanagan - Similkameen	0.65	0.98	4.79	3.84	1.63	1.61	0.65	0.85	0.00	0.00	7.71	7.27
5 Thompson	2.47	2.12	9.73	9.47	2.31	2.12	1.20	1.06	0.00	0.00	15.71	14.78
6 Fraser Valley	0.22	0.13	3.01	2.61	1.79	1.63	0.36	0.38	0.00	0.00	5.38	4.75
7 South Fraser Valley	0.00	0.02	0.15	0.49	1.80	1.67	0.15	0.15	0.00	0.00	2.11	2.33
8 Simon Fraser	0.00	0.00	0.31	0.36	2.21	2.22	0.24	0.23	0.00	0.00	2.76	2.81
9 Coast Garibaldi	2.29	0.80	12.29	12.75	3.86	2.92	0.00	0.00	0.00	0.00	18.44	16.47
10 Central Vancouver Island	1.23	1.52	5.90	5.43	2.68	2.57	0.04	0.00	0.00	0.00	9.86	9.52
11 Upper Island/Central Coast	4.52	4.16	11.49	10.66	2.78	2.25	0.00	0.00	0.00	0.00	18.80	17.07
12 Cariboo	2.57	2.54	8.84	7.22	3.14	2.67	0.00	0.00	0.00	0.00	14.55	12.44
13 North West	5.24	4.74	15.96	14.21	1.48	1.54	0.00	0.00	0.00	0.00	22.69	20.50
14 Peace Liard	4.01	6.75	12.18	10.74	2.40	1.23	0.00	0.00	0.00	0.00	18.60	18.72
15 Northern Interior	2.48	3.84	9.75	8.14	2.16	1.92	0.48	0.84	0.00	0.00	14.87	14.74
16 Vancouver	0.00	0.00	0.34	0.82	2.28	2.50	0.61	0.45	0.36	0.34	3.58	4.12
17 Burnaby	0.00	0.00	0.00	0.11	0.83	0.69	0.00	0.00	0.00	0.00	0.83	0.80
18 North Shore	0.12	0.06	1.56	2.21	2.08	1.92	0.35	0.45	0.00	0.00	4.11	4.64
19 Richmond	0.00	0.00	0.27	0.25	1.42	1.34	0.54	0.57	0.00	0.00	2.23	2.16
20 Capital	0.49	0.87	2.42	2.32	2.02	1.99	0.89	0.87	0.00	0.00	5.82	6.05
TOTAL	0.91	0.99	3.87	3.67	2.15	2.01	0.36	0.35	0.05	0.05	7.34	7.07

Table 1c
Average Annual Rate of Change¹: Emergency Medical Assistants in British Columbia
by Health Region by Licence Category
January 1996 to December 1997

Health Region	EMA FA		EMA 1		EMA 2		EMA 3 (ALS)		EMA 3 (ITT)		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	7.22	5.13	0.53	-1.43	-11.82	-13.54	*	*	*	*	-1.12	-3.04
2 West Kootenay - Boundary	0.00	-1.16	-4.21	-5.33	-12.29	-13.31	*	*	*	*	-5.09	-6.19
3 North Okanagan	-17.46	-19.42	-4.29	-6.57	0.00	-2.38	*	*	*	*	-4.71	-6.97
4 South Okanagan - Similkameen	26.59	23.94	-8.98	-10.89	1.48	-0.65	17.27	14.81	*	*	-0.95	-3.03
5 Thompson	-5.17	-7.65	1.28	-1.37	-1.81	-4.38	-3.54	-6.06	*	*	-0.53	-3.13
6 Fraser Valley	*	*	-4.78	-7.14	-2.64	-5.05	*	*	*	*	-3.99	-6.37
7 South Fraser Valley	*	*	*	*	-1.12	-3.87	*	*	*	*	8.23	5.22
8 Simon Fraser	*	*	*	*	3.21	0.17	*	*	*	*	3.85	0.78
9 Coast Garibaldi	-40.05	-42.29	5.91	1.95	-10.13	-13.49	*	*	*	*	-2.04	-5.70
10 Central Vancouver Island	14.01	11.42	-1.96	-4.19	0.00	-2.27	*	*	*	*	0.46	-1.81
11 Upper Island/Central Coast	-2.03	-4.24	-1.59	-3.82	-8.48	-10.56	*	*	*	*	-2.69	-4.89
12 Cariboo	2.86	-0.54	-6.95	-10.03	-4.85	-7.99	*	*	*	*	-4.71	-7.85
13 North West	-3.46	-5.16	-4.18	-5.87	3.94	2.11	*	*	*	*	-3.46	-5.17
14 Peace Liard	34.31	31.28	-4.20	-6.36	-27.96	-29.59	*	*	*	*	2.67	0.35
15 Northern Interior	28.33	25.66	-7.07	-9.00	-3.94	-5.93	*	*	*	*	1.67	-0.44
16 Vancouver	*	*	61.29	57.59	7.56	5.09	-12.08	-14.10	0.00	-2.30	10.03	7.50
17 Burnaby	*	*	*	*	-7.19	-8.77	*	*	*	*	0.00	-1.70
18 North Shore	*	*	21.15	19.71	-2.94	-4.09	*	*	*	*	7.80	6.52
19 Richmond	*	*	*	*	0.00	-3.06	*	*	*	*	1.57	-1.53
20 Capital	36.38	35.16	-1.33	-2.21	0.00	-0.90	0.00	-0.90	*	*	2.98	2.06
TOTAL	6.81	4.40	-0.43	-2.68	-1.30	-3.52	1.93	-0.37	0.00	-2.25	0.36	-1.90

¹ A 23 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Emergency Medical Assistants in British Columbia
by Health Region by Age and Sex¹
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	8	3	20	21	42	18	17	4	4	1	0	0	0	0	91	47	138
2 West Kootenay - Boundary	11	2	28	19	38	24	20	6	2	2	0	0	0	0	99	53	152
3 North Okanagan	4	3	18	3	19	13	19	7	5	2	0	0	0	0	65	28	93
4 South Okanagan - Similkameen	12	3	35	16	41	15	25	6	8	1	0	0	0	1	121	42	163
5 Thompson	11	5	50	25	35	29	30	4	4	2	0	0	0	0	130	65	195
6 Fraser Valley	8	2	29	6	35	1	23	2	5	0	0	0	0	0	100	11	111
7 South Fraser Valley	0	0	24	6	52	7	28	2	8	1	0	0	0	0	112	16	128
8 Simon Fraser	0	0	14	7	43	5	14	0	3	0	0	0	0	0	74	12	86
9 Coast Garibaldi	7	6	36	11	26	10	15	7	3	2	1	0	0	0	88	36	124
10 Central Vancouver Island	10	9	54	20	41	26	41	15	8	2	0	0	0	0	154	72	226
11 Upper Island/Central Coast	6	6	39	27	48	26	29	13	7	2	0	0	0	2	129	76	205
12 Cariboo	4	1	18	13	18	14	12	8	2	3	0	0	0	0	54	39	93
13 North West	8	6	49	30	31	23	18	13	4	1	0	1	2	0	112	74	186
14 Peace Liard	10	9	22	23	21	14	15	7	0	0	0	0	1	0	69	53	122
15 Northern Interior	13	6	47	12	56	18	22	7	7	2	0	0	0	2	145	47	192
16 Vancouver	3	1	49	14	111	9	36	0	4	0	0	0	0	0	203	24	227
17 Burnaby	0	0	3	1	6	1	4	0	0	0	0	0	0	0	13	2	15
18 North Shore	0	0	20	12	33	4	9	3	1	0	0	0	0	0	63	19	82
19 Richmond	0	0	5	4	16	1	7	0	1	0	0	0	0	0	29	5	34
20 Capital	10	4	39	15	66	20	31	10	5	0	0	0	1	0	152	49	201
TOTAL	125	66	599	285	778	278	415	114	81	21	1	1	4	5	2,003	770	2,773

¹ There are no EMA's with missing sex information.

Table 3
Emergency Medical Assistants in British Columbia
by Health Region by Employment Status¹
December 1997

Health Region	Full-Time	Part-Time ²	Total
1 East Kootenay	13	125	138
2 West Kootenay - Boundary	17	135	152
3 North Okanagan	17	76	93
4 South Okanagan - Similkameen	42	121	163
5 Thompson	30	165	195
6 Fraser Valley	41	70	111
7 South Fraser Valley	96	32	128
8 Simon Fraser	71	15	86
9 Coast Garibaldi	16	108	124
10 Central Vancouver Island	43	183	226
11 Upper Island/Central Coast	14	191	205
12 Cariboo	10	83	93
13 North West	7	179	186
14 Peace Liard	4	118	122
15 Northern Interior	26	166	192
16 Vancouver	188	39	227
17 Burnaby	12	3	15
18 North Shore	37	45	82
19 Richmond	29	5	34
20 Capital	92	109	201
TOTAL	805	1,968	2,773

¹ There are no EMA's with unknown employment status.

² Includes 1 EMA employed on a casual basis.

Table 1a
Emergency Medical Assistants - First Responders^{1,2} in British Columbia
by Health Region by Level of Training
December 1995³ and December 1997

Health Region	FR-1		FR-2		FR-3		Total	
	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	6	2	14	20	48	73	68	95
2 West Kootenay - Boundary	0	0	8	11	144	154	152	165
3 North Okanagan	0	0	0	0	72	101	72	101
4 South Okanagan - Similkameen	0	2	0	0	254	347	254	349
5 Thompson	18	21	22	6	191	219	231	246
6 Fraser Valley	65	83	43	26	184	277	292	386
7 South Fraser Valley	98	102	132	172	648	739	878	1,013
8 Simon Fraser	74	82	27	25	363	406	464	513
9 Coast Garibaldi	4	10	31	29	133	193	168	232
10 Central Vancouver Island	2	8	30	13	484	605	516	626
11 Upper Island/Central Coast	6	4	22	26	110	224	138	254
12 Cariboo	0	0	21	30	4	17	25	47
13 North West	3	4	26	13	183	285	212	302
14 Peace Liard	0	0	10	8	52	69	62	77
15 Northern Interior	17	11	7	16	166	225	190	252
16 Vancouver	14	62	0	0	598	774	612	836
17 Burnaby	7	10	0	0	248	242	255	252
18 North Shore	34	32	15	12	280	304	329	348
19 Richmond	0	0	5	8	200	216	205	224
20 Capital	265	323	26	25	515	605	806	953
TOTAL	613	756	439	440	4,877	6,075	5,929	7,271

¹ Excludes 5 first responders with unknown level of training in 1995 and 13 in 1997.

² Excludes 1 first responder with unknown location in 1995 and 1 in 1997.

³ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Emergency Medical Assistants - First Responders^{1,2} in British Columbia
per 10,000 Population by Health Region by Level of Training
December 1995 and December 1997

Health Region	FR-1		FR-2		FR-3		Total	
	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	0.78	0.25	1.83	2.51	6.26	9.17	8.87	11.93
2 West Kootenay - Boundary	0.00	0.00	1.00	1.35	18.08	18.91	19.09	20.26
3 North Okanagan	0.00	0.00	0.00	0.00	6.52	8.73	6.52	8.73
4 South Okanagan - Similkameen	0.00	0.09	0.00	0.00	11.80	15.48	11.80	15.57
5 Thompson	1.44	1.59	1.75	0.45	15.23	16.60	18.42	18.64
6 Fraser Valley	2.92	3.55	1.93	1.11	8.26	11.85	13.10	16.51
7 South Fraser Valley	1.88	1.85	2.53	3.13	12.43	13.43	16.84	18.41
8 Simon Fraser	2.56	2.68	0.93	0.82	12.54	13.25	16.03	16.74
9 Coast Garibaldi	0.57	1.33	4.43	3.85	19.01	25.64	24.01	30.82
10 Central Vancouver Island	0.09	0.34	1.32	0.55	21.30	25.48	22.70	26.36
11 Upper Island/Central Coast	0.52	0.33	1.91	2.17	9.57	18.65	12.01	21.15
12 Cariboo	0.00	0.00	3.00	4.01	0.57	2.27	3.57	6.29
13 North West	0.34	0.44	2.96	1.43	20.87	31.40	24.17	33.28
14 Peace Liard	0.00	0.00	1.60	1.23	8.34	10.59	9.94	11.82
15 Northern Interior	1.36	0.84	0.56	1.23	13.27	17.28	15.19	19.35
16 Vancouver	0.27	1.12	0.00	0.00	11.34	14.04	11.61	15.16
17 Burnaby	0.39	0.53	0.00	0.00	13.67	12.91	14.06	13.45
18 North Shore	1.97	1.81	0.87	0.68	16.21	17.21	19.05	19.70
19 Richmond	0.00	0.00	0.34	0.51	13.51	13.75	13.85	14.26
20 Capital	8.12	9.73	0.80	0.75	15.78	18.22	24.70	28.70
TOTAL	1.63	1.93	1.17	1.12	12.99	15.49	15.79	18.54

¹ Excludes 5 first responders with unknown level of training in 1995 and 13 in 1997.

² Excludes 1 first responder with unknown location in 1995 and 1 in 1997.

Table 1c
Average Annual Rate of Change¹: Emergency Medical Assistants - First Responders^{2,3} in British Columbia
by Health Region by Level of Training
December 1995 to December 1997

Health Region	FR-1		FR-2		FR-3		Total	
	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵
1 East Kootenay	*	*	19.52	17.30	23.32	21.02	18.20	15.99
2 West Kootenay - Boundary	*	*	*	*	3.41	2.26	4.19	3.03
3 North Okanagan	*	*	*	*	18.44	15.74	18.44	15.74
4 South Okanagan - Similkameen	*	*	*	*	16.88	14.53	17.22	14.86
5 Thompson	8.01	5.30	-47.78	-49.09	7.08	4.39	3.20	0.61
6 Fraser Valley	13.00	10.32	-22.24	-24.09	22.70	19.78	14.97	12.24
7 South Fraser Valley	2.02	-0.70	14.15	11.11	6.79	3.94	7.41	4.55
8 Simon Fraser	5.27	2.29	-3.77	-6.50	5.76	2.77	5.15	2.17
9 Coast Garibaldi	*	*	-3.28	-6.74	20.46	16.15	17.51	13.31
10 Central Vancouver Island	*	*	-34.17	-35.60	11.80	9.37	10.14	7.75
11 Upper Island/Central Coast	*	*	8.71	6.35	42.70	39.60	35.67	32.72
12 Cariboo	*	*	19.52	15.74	*	*	37.11	32.77
13 North West	*	*	-29.29	-30.49	24.79	22.68	19.35	17.33
14 Peace Liard	*	*	-10.56	-12.49	15.19	12.70	11.44	9.03
15 Northern Interior	-19.56	-21.16	*	*	16.42	14.11	15.17	12.87
16 Vancouver	110.44	105.81	*	*	13.77	11.26	16.88	14.30
17 Burnaby	*	*	*	*	-1.22	-2.82	-0.59	-2.21
18 North Shore	-2.99	-4.09	-10.56	-11.58	4.20	3.01	2.85	1.67
19 Richmond	*	*	*	*	3.92	0.88	4.53	1.47
20 Capital	10.40	9.45	-1.94	-2.78	8.39	7.46	8.74	7.80
TOTAL	11.05	8.65	0.11	-2.05	11.61	9.20	10.74	8.35

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Excludes 5 first responders with unknown level of training in 1995 and 13 in 1997.

³ Excludes 1 first responder with unknown location in 1995 and 1 in 1997.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Emergency Medical Assistants - First Responders^{1,2} in British Columbia
by Health Region by Age and Sex³
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	4	1	20	7	30	4	18	1	8	0	0	0	2	0	82	13	95
2 West Kootenay - Boundary	18	0	32	2	57	2	42	0	9	0	1	0	2	0	161	4	165
3 North Okanagan	4	3	21	4	25	11	24	4	5	0	0	0	0	0	79	22	101
4 South Okanagan - Similkameen	38	0	84	3	109	5	79	3	24	0	2	0	1	1	337	12	349
5 Thompson	25	2	68	8	79	9	41	2	10	0	0	0	1	1	224	22	246
6 Fraser Valley	31	2	140	8	134	6	30	0	4	0	0	0	25	6	364	22	386
7 South Fraser Valley	71	3	363	18	348	9	166	2	24	1	1	0	7	0	980	33	1,013
8 Simon Fraser	12	0	120	17	199	9	129	9	16	1	1	0	0	0	477	36	513
9 Coast Garibaldi	15	2	60	6	88	6	31	4	11	5	0	0	4	0	209	23	232
10 Central Vancouver Island	50	5	173	19	203	24	110	13	17	3	3	1	4	1	560	66	626
11 Upper Island/Central Coast	22	2	75	4	88	9	44	1	8	0	1	0	0	0	238	16	254
12 Cariboo	2	0	13	0	14	1	10	1	3	1	1	1	0	0	43	4	47
13 North West	28	1	94	13	93	8	53	2	3	0	2	0	3	2	276	26	302
14 Peace Liard	1	0	16	1	31	4	20	0	2	0	0	0	1	1	71	6	77
15 Northern Interior	24	4	47	7	84	16	48	6	10	1	0	0	5	0	218	34	252
16 Vancouver	7	1	223	18	313	7	215	1	43	0	0	0	7	1	808	28	836
17 Burnaby	0	0	53	3	99	1	74	0	22	0	0	0	0	0	248	4	252
18 North Shore	5	0	75	5	112	1	139	2	8	0	0	0	1	0	340	8	348
19 Richmond	2	1	45	4	68	1	94	1	8	0	0	0	0	0	217	7	224
20 Capital	52	5	230	56	327	30	183	15	31	5	5	0	13	1	841	112	953
TOTAL	411	32	1,952	203	2,501	163	1,550	67	266	17	17	2	76	14	6,773	498	7,271

¹ Excludes 13 first responders with unknown level of training.

² Excludes 1 first responder with unknown location.

³ There are no first responders with missing sex information.

Table 3
Emergency Medical Assistants - First Responders^{1,2} in British Columbia
by Health Region by Place of Employment
December 1997

Health Region	Fire Department	Police Department	Other Agency	Unknown	Total
1 East Kootenay	95	0	0	0	95
2 West Kootenay - Boundary	165	0	0	0	165
3 North Okanagan	76	0	24	1	101
4 South Okanagan - Similkameen	328	0	20	1	349
5 Thompson	230	7	9	0	246
6 Fraser Valley	313	73	0	0	386
7 South Fraser Valley	907	106	0	0	1,013
8 Simon Fraser	429	84	0	0	513
9 Coast Garibaldi	232	0	0	0	232
10 Central Vancouver Island	624	1	0	1	626
11 Upper Island/Central Coast	253	0	0	1	254
12 Cariboo	47	0	0	0	47
13 North West	292	0	9	1	302
14 Peace Liard	77	0	0	0	77
15 Northern Interior	250	0	2	0	252
16 Vancouver	767	69	0	0	836
17 Burnaby	252	0	0	0	252
18 North Shore	328	20	0	0	348
19 Richmond	223	1	0	0	224
20 Capital	609	344	0	0	953
TOTAL	6,497	705	64	5	7,271

¹ Excludes 13 first responders with unknown level of training.

² Excludes 1 first responder with unknown location.

NATUROPATHIC PHYSICIANS

Definition: A naturopathic physician

...is a primary care practitioner who utilises various methods of diagnostic testing to assist in the treatment and prevention of disease.¹

Common therapeutic modalities utilised by naturopaths include, but are not limited to:

- (a) *Nutritional Counselling*
Specific individual diets including vitamins, mineral and other nutritional supplements to strengthen the body.
- (b) *Botanical (herbal) Medicine*
Plant substances for their healing effects and nutritional value.
- (c) *Homeopathy*
Minute amounts of natural substances to stimulate the body's self-healing abilities.
- (d) *Manipulation*
Corrections of stress or trauma-induced misalignments of muscle, connective tissue and the skeletal system.
- (e) *Physical Medicine*
The therapeutic use of water, light, electricity, ultra-sound, massage and exercise.
- (f) *Chinese Medicine*
Includes the use of acupuncture, electrodiagnosis and Chinese herbology.
- (g) *Psychological Services*
Counselling, hypnotherapy, emotional support and biofeedback.²

Governing Statute: Naturopaths Act, R.S.B.C. 1996, Chapter 332; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Association of Naturopathic Physicians of British Columbia. In order to practise as a naturopathic physician in British Columbia, it is necessary to be registered by the Association.

Date of Record: October 1995 and May 1998.

Source of Data: Association of Naturopathic Physicians of British Columbia (ANPBC).

Preparation and Updating:

The table, derived from the Register supplied by the ANPBC, includes only registered *active members* of the ANPBC in practice in British Columbia at the date of record. *Associate members* of the ANPBC have been excluded from the table since they are not involved in active practice in the province. Data presented in the table are based on the employment address of naturopathic physicians.

¹ From information provided by the Association of Naturopathic Physicians of British Columbia.

² *Questions and Answers about Naturopathic Medicine and Naturopathic Physicians*. See also *National Occupational Classification 1992*, Major Group 31, No. 3123, Ottawa: Employment and Immigration Canada.

Table 1
Registered Active Naturopathic Physicians in British Columbia
by Health Region
October 1995 and May 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1995	1998	1995	1998	Number ²	Ratio ³
1 East Kootenay	0	2	0.00	0.25	*	*
2 West Kootenay - Boundary	4	4	0.50	0.49	*	*
3 North Okanagan	5	5	0.45	0.43	*	*
4 South Okanagan - Similkameen	8	12	0.37	0.54	*	*
5 Thompson	3	3	0.24	0.23	*	*
6 Fraser Valley	3	3	0.13	0.13	*	*
7 South Fraser Valley	13	15	0.25	0.27	5.70	3.51
8 Simon Fraser	5	4	0.17	0.13	*	*
9 Coast Garibaldi	1	2	0.14	0.27	*	*
10 Central Vancouver Island	4	4	0.18	0.17	*	*
11 Upper Island/Central Coast	3	5	0.26	0.42	*	*
12 Cariboo	1	1	0.14	0.13	*	*
13 North West	1	1	0.11	0.11	*	*
14 Peace Liard	0	0	0.00	0.00	*	*
15 Northern Interior	2	3	0.16	0.23	*	*
16 Vancouver	20	25	0.38	0.45	9.02	7.16
17 Burnaby	1	2	0.06	0.11	*	*
18 North Shore	6	9	0.35	0.51	*	*
19 Richmond	1	2	0.07	0.13	*	*
20 Capital	12	17	0.37	0.51	14.43	13.67
TOTAL	93	119	0.25	0.30	10.01	8.17

¹ A 31 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

OPTICIANS

Definition: An optician

...fits clients with prescription eyeglasses or contact lenses, assists clients in the selection of eyeglass frames, arranges for the production of eyeglasses or contact lenses and mounts lenses in eyeglass frames.

Opticians may perform some or all of the following duties:

- (a) obtain specifications for eyeglasses or contact lenses from a prescription prepared by an ophthalmologist or optometrist or by analysing the client's eyeglasses or contact lenses, and by measuring the client's eye curvature, pupillary distance and bridge width, using optical measuring devices;
- (b) assist clients in selecting eyeglasses by advising on lens materials, frames, tints and anti-reflection coating;
- (c) advise on use and care of contact lenses;
- (d) arrange for grinding and polishing of lenses or grind and polish lenses;
- (e) cut and edge lenses and fit lenses into frames;
- (f) adjust finished eyeglasses to fit client;
- (g) supervise or manage the activities of other opticians or student opticians.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Opticians of British Columbia (COBC). In order to practice as an optician or contact lens fitter in British Columbia, it is necessary to be registered and licensed by the COBC. Registrants of the College have exclusive use of the titles: *optician*, *dispensing optician* and *contact lens fitter*.

Date of Record: May 1998

Source of Data: College of Opticians of British Columbia (COBC).

Preparation and Updating:

Information reported in the tables is derived from data supplied by the College of Opticians of British Columbia (COBC) and includes opticians who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the membership status is *licensed*, when employment in optics is reported, and when employment address is available. In 1998, employment address was available for 96.2% of licensed opticians employed in optics. Home address is used for the remainder, as well as for licensed opticians who are not employed in optics, and for opticians with non-practising or student membership status.

¹ Adapted from *National Occupational Classification 1992*, Major Group 32, No. 3231, Ottawa: Employment and Immigration Canada.

Opticians appear for the first time in *ROLLCALL 97*. Therefore, there are no reported analyses of change from previous years.

Definition of Terms:

1. Registration Status

Tables 1a and 1b show number and number per 10,000 population of opticians in B.C. at the date of record by registration status.

The registration categories used by the College of Opticians of B.C. (COBC) are as follows:

(a) Licensed

(i) Dispensing Optician

A dispensing optician is licensed by the COBC to provide dispensing services for eyeglasses. They are not permitted to dispense contact lens.

(ii) Contact Lens Fitter

A contact lens fitter is licensed by the COBC to provide dispensing services for both eyeglasses and contact lens. Licensed contact lens fitters have had additional training in fitting contact lens.

(b) Non-Practising

(i) Dispensing Optician

A non-practising dispensing optician is currently not employed in the field of opticianry, but must be able to meet the requirements for full registration as a dispensing optician by the COBC.

(ii) Contact Lens Fitter

A non-practising contact lens fitter is currently not employed in the field of opticianry, but must be able to meet the requirements for full registration as a contact lens fitter by the COBC.

(c) Student Contact Lens Fitter

A student contact lens fitter is enrolled in an approved contact lens program. The COBC has three registration categories for student contact lens fitters: student contact lens fitter, dispensing optician license/student contact lens fitter, and non-practising optician/student contact lens fitter. All three categories are combined in the tables under "Student".²

2. Age and Sex

Age and sex information for opticians who are registered with the COBC is presented in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada. Age information was not available for the majority of opticians (52.8%).

² Adapted from information supplied by the College of Opticians of B.C., and from the Bylaws of the College of Opticians of B.C. as listed under Canadian Licensing Information for British Columbia on the web site of The Opticians Association of Canada (www.opticians.ca/english/index1.htm).

3. Employment Setting

Information about employment setting was provided by the COBC. Table 3 shows this information for practising members of the COBC using the following categories:

- (a) Optical Company/Optician;
- (b) Optometrist/Ophthalmologist Office/Clinic;
- (c) Other Optic-related;
- (d) Non-Optic;
- (e) Unknown.

Table 1a
Opticians¹ in British Columbia
by Health Region by Registration Status
May 1998

Health Region	Licensed		Non-Practising		Student	Total
	Dispensing Optician	Contact Lens Fitter	Dispensing Optician	Contact Lens Fitter		
1 East Kootenay	3	3	1	0	0	7
2 West Kootenay - Boundary	9	2	0	1	0	12
3 North Okanagan	16	13	0	2	0	31
4 South Okanagan - Similkameen	37	33	11	5	1	87
5 Thompson	18	6	2	1	1	28
6 Fraser Valley	43	25	2	0	1	71
7 South Fraser Valley	58	67	11	5	12	153
8 Simon Fraser	27	35	12	8	9	91
9 Coast Garibaldi	6	5	0	0	0	11
10 Central Vancouver Island	24	28	3	1	0	56
11 Upper Island/Central Coast	10	9	3	1	0	23
12 Cariboo	14	7	2	0	0	23
13 North West	11	0	0	1	0	12
14 Peace Liard	4	0	1	0	1	6
15 Northern Interior	13	8	1	0	0	22
16 Vancouver	68	120	14	10	7	219
17 Burnaby	41	44	7	4	3	99
18 North Shore	23	20	6	3	1	53
19 Richmond	21	56	4	3	1	85
20 Capital	50	46	7	2	2	107
TOTAL	496	527	87	47	39	1,196

¹ Excludes 45 opticians with unknown location.

Table 1b
Opticians¹ in British Columbia
per 10,000 Population by Health Region by Registration Status
May 1998

Health Region	Licensed		Non-Practising		Student	Total
	Dispensing Optician	Contact Lens Fitter	Dispensing Optician	Contact Lens Fitter		
1 East Kootenay	0.38	0.38	0.13	0.00	0.00	0.88
2 West Kootenay - Boundary	1.11	0.25	0.00	0.12	0.00	1.47
3 North Okanagan	1.38	1.12	0.00	0.17	0.00	2.68
4 South Okanagan - Similkameen	1.65	1.47	0.49	0.22	0.04	3.88
5 Thompson	1.36	0.45	0.15	0.08	0.08	2.12
6 Fraser Valley	1.84	1.07	0.09	0.00	0.04	3.04
7 South Fraser Valley	1.05	1.22	0.20	0.09	0.22	2.78
8 Simon Fraser	0.88	1.14	0.39	0.26	0.29	2.97
9 Coast Garibaldi	0.80	0.66	0.00	0.00	0.00	1.46
10 Central Vancouver Island	1.01	1.18	0.13	0.04	0.00	2.36
11 Upper Island/Central Coast	0.83	0.75	0.25	0.08	0.00	1.92
12 Cariboo	1.87	0.94	0.27	0.00	0.00	3.08
13 North West	1.21	0.00	0.00	0.11	0.00	1.32
14 Peace Liard	0.61	0.00	0.15	0.00	0.15	0.92
15 Northern Interior	1.00	0.61	0.08	0.00	0.00	1.69
16 Vancouver	1.23	2.18	0.25	0.18	0.13	3.97
17 Burnaby	2.19	2.35	0.37	0.21	0.16	5.28
18 North Shore	1.30	1.13	0.34	0.17	0.06	3.00
19 Richmond	1.34	3.57	0.25	0.19	0.06	5.41
20 Capital	1.51	1.39	0.21	0.06	0.06	3.22
TOTAL	1.26	1.34	0.22	0.12	0.10	3.05

¹ Excludes 45 opticians with unknown location.

Table 2
Opticians^{1,2} in British Columbia
by Health Region by Age and Sex³
May 1998

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	1	0	0	0	1	0	0	0	0	4	1	4	3	7
2 West Kootenay - Boundary	0	0	1	0	2	1	2	1	0	1	0	0	2	2	7	5	12
3 North Okanagan	0	0	0	5	0	3	4	3	1	0	0	0	10	5	15	16	31
4 South Okanagan - Similkameen	0	1	3	12	3	16	2	10	3	2	0	0	17	18	28	59	87
5 Thompson	0	1	1	2	3	2	3	4	0	0	0	0	3	9	10	18	28
6 Fraser Valley	0	2	1	7	4	4	4	6	2	1	1	0	17	22	29	42	71
7 South Fraser Valley	4	8	8	9	6	17	7	4	3	1	0	0	37	49	65	88	153
8 Simon Fraser	1	3	5	9	2	9	6	3	0	1	0	0	25	27	39	52	91
9 Coast Garibaldi	0	0	1	1	1	1	1	1	0	0	0	0	3	2	6	5	11
10 Central Vancouver Island	1	0	4	10	3	5	5	5	1	2	0	0	7	13	21	35	56
11 Upper Island/Central Coast	1	2	2	3	1	3	1	1	1	0	0	0	1	7	7	16	23
12 Cariboo	0	0	0	4	1	4	1	3	0	0	0	0	2	8	4	19	23
13 North West	0	0	2	1	1	2	2	0	0	0	0	0	2	2	7	5	12
14 Peace Liard	0	1	0	1	1	0	0	0	0	0	0	0	2	1	3	3	6
15 Northern Interior	0	1	0	2	0	6	0	0	1	0	0	0	4	8	5	17	22
16 Vancouver	1	5	12	15	22	14	15	8	3	0	1	0	68	55	122	97	219
17 Burnaby	3	5	6	9	4	4	3	0	2	0	0	0	30	33	48	51	99
18 North Shore	0	0	8	3	4	1	3	0	0	1	0	0	11	22	26	27	53
19 Richmond	1	2	2	6	6	7	6	2	1	0	0	0	30	22	46	39	85
20 Capital	2	2	4	19	5	8	5	8	1	2	0	0	26	25	43	64	107
TOTAL	14	33	60	119	69	107	70	60	19	11	2	0	301	331	535	661	1,196

¹ Includes Licensed, Non-Practising and Student members.

² Excludes 45 opticians with unknown location.

³ There are no opticians with missing sex information.

Table 3
Opticians^{1,2} in British Columbia
by Health Region by Employment Setting
May 1998

Health Region	Optometrist/ Ophthalmologist					Total
	Optical Company/ Optician	Office/ Clinic	Other Optic-related	Non-Optic	Unknown	
1 East Kootenay	6	0	0	0	0	6
2 West Kootenay - Boundary	8	2	0	0	1	11
3 North Okanagan	24	4	0	0	1	29
4 South Okanagan - Similkameen	61	2	6	0	1	70
5 Thompson	18	6	0	0	0	24
6 Fraser Valley	50	16	2	0	0	68
7 South Fraser Valley	103	10	5	0	7	125
8 Simon Fraser	44	6	6	0	6	62
9 Coast Garibaldi	7	3	1	0	0	11
10 Central Vancouver Island	48	4	0	0	0	52
11 Upper Island/Central Coast	19	0	0	0	0	19
12 Cariboo	14	7	0	0	0	21
13 North West	9	1	0	0	1	11
14 Peace Liard	4	0	0	0	0	4
15 Northern Interior	12	9	0	0	0	21
16 Vancouver	165	5	14	1	3	188
17 Burnaby	75	2	7	1	0	85
18 North Shore	35	5	1	0	2	43
19 Richmond	55	7	12	0	3	77
20 Capital	79	13	1	0	3	96
TOTAL	836	102	55	2	28	1,023

¹ Excludes Non-Practising and Student members.

² Excludes 45 opticians with unknown location.

OPTOMETRISTS

Definition: An optometrist is

...an independent primary-care health provider who specialises in the examination, diagnosis, treatment, management, and prevention of disease and disorders of the visual system, the eye and associated structures. Patient management includes: prescribing glasses and contact lenses; vision therapy or orthoptics; low vision aids and monitoring the ocular effects of systemic disease; systemic drugs and therapy; and referral for consultation to the appropriate practitioner for the treatment of ocular or systemic disease or eye surgery.¹

Governing Statute: Optometrists Act, R.S.B.C. 1996, Chapter 342; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Board of Examiners in Optometry of British Columbia. In order to practise optometry in British Columbia, it is necessary to hold a certificate of registration and a current and valid licence from the Board.

Date of Record: November 1995 and December 1997.

Source of Data: British Columbia Association of Optometrists (BCAO).

Preparation and Updating:

The table, derived from the Association Roll supplied by the British Columbia Association of Optometrists, includes licensed optometrists who reported a British Columbia address at the date of record. Data presented in the table are based on employment address for the majority of optometrists. Precise percentages of home versus employment or other address are not known.

¹ Adapted from information provided by the British Columbia Association of Optometrists. See also *National Occupational Classification 1992*, Major Group 31, No. 3121, Ottawa: Employment and Immigration Canada.

Table 1
Optometrists in British Columbia
by Health Region
November 1995 and December 1997

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1995	1997	1995	1997	Number ²	Ratio ³
1 East Kootenay	7	11	0.91	1.38	*	*
2 West Kootenay - Boundary	11	9	1.38	1.11	-9.18	-10.16
3 North Okanagan	10	9	0.91	0.78	-4.93	-7.02
4 South Okanagan - Similkameen	17	19	0.79	0.85	5.48	3.44
5 Thompson	17	17	1.36	1.29	0.00	-2.41
6 Fraser Valley	14	19	0.63	0.81	15.79	13.14
7 South Fraser Valley	30	31	0.58	0.56	1.59	-1.02
8 Simon Fraser	17	18	0.59	0.59	2.78	-0.01
9 Coast Garibaldi	6	8	0.86	1.06	*	*
10 Central Vancouver Island	13	15	0.57	0.63	7.11	4.87
11 Upper Island/Central Coast	8	9	0.70	0.75	*	*
12 Cariboo	3	6	0.43	0.80	*	*
13 North West	9	8	1.03	0.88	*	*
14 Peace Liard	5	5	0.80	0.77	*	*
15 Northern Interior	9	10	0.72	0.77	*	*
16 Vancouver	42	43	0.80	0.78	1.14	-1.00
17 Burnaby	9	12	0.50	0.64	*	*
18 North Shore	16	13	0.93	0.74	-9.49	-10.48
19 Richmond	14	16	0.95	1.02	6.62	3.62
20 Capital	29	33	0.89	0.99	6.40	5.52
TOTAL	286	311	0.76	0.79	4.10	1.94

¹ A 25 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

PHARMACISTS

Definition: A pharmacist

...is responsible for the "practice of pharmacy", which includes the practice of and responsibility for:

- (a) interpretation and evaluation of prescriptions;
- (b) compounding, dispensing and added labelling of drugs and devices;
- (c) monitoring drug therapy;
- (d) identification, assessment and recommendations necessary to resolve or prevent drug related problems in patients;
- (e) advising persons of the therapeutic values, content and hazards of drugs and devices;
- (f) safe storage of drugs and devices;
- (g) maintenance of proper records, including patient records, for drugs and devices;
- (h) services, duties and transactions necessary to the management, operation and control of a pharmacy or to provide pharmacy services in a hospital, facility or care centre;
- (i) sale of drugs by pharmacists.¹

Governing Statute: Pharmacists, Pharmacy Operations and Drug Scheduling Act, R.S.B.C. 1996, Chapter 363; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Pharmacists of British Columbia (CPBC). In order to practise as a pharmacist in British Columbia, it is necessary to be registered by the College. Registered pharmacists have exclusive use of the titles: *chemist*, *pharmaceutical chemist*, *druggist*, *apothecary*, *pharmacist*, *R. Ph.*, *R. Pharm.* or words of similar meaning.

Dates of Record: September 1995 and April 1998.

Source of Data: College of Pharmacists of British Columbia (CPBC).

Preparation and Updating:

The tables that follow have been prepared from registration data maintained by the CPBC and include licensed pharmacists who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when pharmacists report employment in pharmacy. In 1995 and 1998, employment address was available for 87.0% and 99.6% of pharmacists employed in pharmacy respectively. Home address is used for the remainder, as well as for pharmacists not employed in pharmacy.

¹ Adapted from information provided by the College of Pharmacists of British Columbia. See also *National Occupational Classification 1992*, Major Group 31, No. 3131, Ottawa: Employment and Immigration Canada.

Definition of Terms:

1. Pharmacists

Table 1 reports the number of pharmacists in British Columbia, the number of pharmacists per 10,000 population in the province, and the average annual rates of change in these figures.

2. Age and Sex

Age and sex information for pharmacists is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status and Type of Employer

Employment status for pharmacists is reported based on type of employer in Table 3 using the following categories:

- (a) Employed in Pharmacy;
 - (i) Community pharmacy
 - (ii) Hospital pharmacy
 - (iii) Other
- (b) Not Employed in Pharmacy.

4. Employment Status and Type of Position

Table 4 shows pharmacists by employment status and type of position using the following categories:

- (a) Employed in Pharmacy;
 - (i) Dispensing - Manager
 - pharmacists who have and can confer upon others narcotic signing authority
 - (ii) Dispensing - Non-manager
 - pharmacists who may have narcotic signing authority but who cannot confer it upon others
 - (iii) Other
- (b) Not Employed in Pharmacy.

5. Analysis of Change

Table 5 illustrates the sources of change which affected the supply of pharmacists from September 1995 to April 1998.

New registrants include pharmacists who were licensed as of April 1998 and who registered with the CPBC *for the first time* subsequent to September 1995. New registrants are recorded according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent pharmacists who were not licensed in British Columbia in September 1995, but were licensed in the province in April 1998, and whose date of initial registration was before

September 1995. Also included are licensed pharmacists who reported out-of-province addresses in September 1995, but who reported British Columbia addresses in April 1998.

Attrition describes pharmacists who were included in the September 1995 supply but who, because of death, retirement, suspension, out-of-province relocation or non-renewal of licence were not included in the April 1998 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration. It records the flow of pharmacists among different Health Regions. The net migration total is therefore zero.

Table 1
Pharmacists in British Columbia
by Health Region
September 1995¹ and April 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ²	
	1995	1998	1995	1998	Number ³	Ratio ⁴
1 East Kootenay	36	39	4.70	4.90	3.25	1.71
2 West Kootenay - Boundary	57	47	7.16	5.77	-7.43	-8.25
3 North Okanagan	76	68	6.88	5.88	-4.35	-6.10
4 South Okanagan - Similkameen	149	165	6.92	7.36	4.16	2.48
5 Thompson	81	80	6.46	6.06	-0.50	-2.50
6 Fraser Valley	128	142	5.74	6.07	4.24	2.25
7 South Fraser Valley	294	317	5.64	5.76	3.06	0.85
8 Simon Fraser	197	208	6.81	6.79	2.20	-0.12
9 Coast Garibaldi	55	45	7.86	5.98	-7.71	-10.37
10 Central Vancouver Island	135	139	5.94	5.85	1.17	-0.59
11 Upper Island/Central Coast	53	56	4.61	4.66	2.23	0.45
12 Cariboo	32	38	4.56	5.08	7.12	4.39
13 North West	54	61	6.16	6.72	5.00	3.57
14 Peace Liard	31	29	4.97	4.45	-2.63	-4.32
15 Northern Interior	58	69	4.64	5.30	7.19	5.48
16 Vancouver	664	677	12.59	12.28	0.78	-1.00
17 Burnaby	131	145	7.22	7.74	4.15	2.79
18 North Shore	144	151	8.34	8.55	1.92	0.99
19 Richmond	117	122	7.91	7.77	1.69	-0.70
20 Capital	241	263	7.39	7.92	3.56	2.84
TOTAL	2,733	2,861	7.28	7.30	1.85	0.08

¹ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

² A 30 month rate of change has been adjusted to an average annual figure.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

Table 2
Pharmacists in British Columbia
by Health Region by Age and Sex¹
April 1998

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	1	0	5	9	3	5	3	6	4	1	1	0	1	0	18	21	39
2 West Kootenay - Boundary	0	2	8	5	7	7	6	4	6	0	0	0	2	0	29	18	47
3 North Okanagan	0	0	7	13	13	10	16	3	3	0	1	0	1	1	41	27	68
4 South Okanagan - Similkameen	0	3	24	23	18	26	26	15	16	4	7	0	2	1	93	72	165
5 Thompson	1	1	12	17	9	10	7	8	8	3	2	0	2	0	41	39	80
6 Fraser Valley	5	3	34	23	16	19	13	15	9	2	3	0	0	0	80	62	142
7 South Fraser Valley	3	7	56	71	44	45	33	27	15	5	6	1	4	0	161	156	317
8 Simon Fraser	0	3	34	37	17	35	31	29	12	5	1	0	3	1	98	110	208
9 Coast Garibaldi	0	0	8	9	5	11	4	2	4	1	1	0	0	0	22	23	45
10 Central Vancouver Island	2	3	19	22	19	21	18	15	11	3	4	0	1	1	74	65	139
11 Upper Island/Central Coast	0	1	9	14	11	8	4	4	3	0	1	0	0	1	28	28	56
12 Cariboo	3	3	5	7	7	2	3	0	4	2	1	1	0	0	23	15	38
13 North West	1	0	9	14	9	12	8	3	4	1	0	0	0	0	31	30	61
14 Peace Liard	0	2	3	8	1	2	7	2	2	1	1	0	0	0	14	15	29
15 Northern Interior	1	5	14	17	9	4	9	5	2	1	1	0	0	1	36	33	69
16 Vancouver	10	23	78	165	90	120	67	72	18	18	6	2	3	5	272	405	677
17 Burnaby	4	2	16	37	19	25	13	15	6	0	4	0	3	1	65	80	145
18 North Shore	1	4	13	41	13	25	14	14	14	8	1	1	0	2	56	95	151
19 Richmond	4	5	21	22	16	20	13	11	5	3	0	1	1	0	60	62	122
20 Capital	1	2	39	33	25	49	37	37	20	8	7	1	3	1	132	131	263
TOTAL	37	69	414	587	351	456	332	287	166	66	48	7	26	15	1,374	1,487	2,861

¹ There are no pharmacists with missing sex information.

Table 3
Pharmacists in British Columbia
by Health Region by Employment Status and Type of Employer
April 1998

Health Region	Employed in Pharmacy				Not Employed in Pharmacy	Total
	Community Pharmacy	Hospital Pharmacy	Other	Subtotal		
1 East Kootenay	29	5	0	34	5	39
2 West Kootenay - Boundary	38	5	0	43	4	47
3 North Okanagan	48	10	0	58	10	68
4 South Okanagan - Similkameen	124	27	2	153	12	165
5 Thompson	56	15	0	71	9	80
6 Fraser Valley	112	19	1	132	10	142
7 South Fraser Valley	231	46	5	282	35	317
8 Simon Fraser	131	59	3	193	15	208
9 Coast Garibaldi	41	3	0	44	1	45
10 Central Vancouver Island	111	15	1	127	12	139
11 Upper Island/Central Coast	42	8	1	51	5	56
12 Cariboo	29	4	0	33	5	38
13 North West	43	7	0	50	11	61
14 Peace Liard	22	4	0	26	3	29
15 Northern Interior	55	10	0	65	4	69
16 Vancouver	310	198	49	557	120	677
17 Burnaby	89	20	4	113	32	145
18 North Shore	93	21	8	122	29	151
19 Richmond	68	9	11	88	34	122
20 Capital	179	52	4	235	28	263
TOTAL	1,851	537	89	2,477	384	2,861

Table 4
Pharmacists in British Columbia
by Health Region by Employment Status and Type of Position
April 1998

Health Region	Employed in Pharmacy				Not Employed in Pharmacy	Total
	Dispensing Pharmacist		Other	Subtotal		
	Manager	Non-Manager				
1 East Kootenay	17	17	0	34	5	39
2 West Kootenay - Boundary	24	19	0	43	4	47
3 North Okanagan	20	38	0	58	10	68
4 South Okanagan - Similkameen	48	103	2	153	12	165
5 Thompson	23	48	0	71	9	80
6 Fraser Valley	44	87	1	132	10	142
7 South Fraser Valley	88	189	5	282	35	317
8 Simon Fraser	51	139	3	193	15	208
9 Coast Garibaldi	21	23	0	44	1	45
10 Central Vancouver Island	48	78	1	127	12	139
11 Upper Island/Central Coast	24	27	0	51	5	56
12 Cariboo	16	17	0	33	5	38
13 North West	19	31	0	50	11	61
14 Peace Liard	12	14	0	26	3	29
15 Northern Interior	25	40	0	65	4	69
16 Vancouver	134	374	49	557	120	677
17 Burnaby	33	76	4	113	32	145
18 North Shore	29	85	8	122	29	151
19 Richmond	24	53	11	88	34	122
20 Capital	73	158	4	235	28	263
TOTAL	773	1,616	88	2,477	384	2,861

Table 5
Analysis of Change in the Number of Pharmacists in British Columbia
by Health Region
September 1995¹ to April 1998

Health Region	September 1995	New Registrants ² by Place of Graduation					Reactivation ³	Attrition ⁴	Net Intra-provincial Migration	April 1998
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	36	2	2	0	0	4	0	3	2	39
2 West Kootenay - Boundary	57	4	2	0	0	6	2	11	-7	47
3 North Okanagan	76	2	0	1	0	3	2	7	-6	68
4 South Okanagan - Similkameen	149	5	10	1	1	17	5	13	7	165
5 Thompson	81	5	2	1	0	8	2	10	-1	80
6 Fraser Valley	128	16	1	3	0	20	1	9	2	142
7 South Fraser Valley	294	21	9	1	3	34	11	27	5	317
8 Simon Fraser	197	8	6	5	1	20	4	20	7	208
9 Coast Garibaldi	55	1	3	0	0	4	1	8	-7	45
10 Central Vancouver Island	135	10	3	1	1	15	3	11	-3	139
11 Upper Island/Central Coast	53	2	7	2	0	11	1	4	-5	56
12 Cariboo	32	6	2	0	0	8	0	0	-2	38
13 North West	54	1	4	0	1	6	4	7	4	61
14 Peace Liard	31	0	7	0	0	7	4	6	-7	29
15 Northern Interior	58	5	3	1	1	10	1	5	5	69
16 Vancouver	664	53	16	7	2	78	20	78	-7	677
17 Burnaby	131	15	4	1	3	23	11	17	-3	145
18 North Shore	144	7	1	3	1	12	8	11	-2	151
19 Richmond	117	13	1	4	2	20	5	21	1	122
20 Capital	241	7	6	3	0	16	15	26	17	263
TOTAL	2,733	183	89	34	16	322	100	294	0	2,861

¹ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

² Pharmacists who reported B.C. addresses and were registered in April 1998 and whose date of initial registration was after September 1995.

³ Pharmacists who reported B.C. addresses and were registered in April 1998 but not in September 1995 and who were registered for the first time before September 1995.

⁴ Pharmacists who reported B.C. addresses and were registered in September 1995 but not in April 1998.

PHYSICIANS

Definition: A physician in general practice

...diagnoses and treats the diseases, physiological disorders, and injuries of patients.

Physicians in general practice perform some or all of the following duties:

- (a) examine patients, order laboratory tests, X-rays, and other diagnostic procedures and consult with other medical practitioners to evaluate patients' health;
- (b) prescribe and administer medications and treatments;
- (c) perform and assist in routine surgery;
- (d) inoculate and vaccinate patients;
- (e) deliver babies and provide pre-natal and post-natal care;
- (f) advise patients on health care;
- (g) report births, deaths and contagious diseases to governmental authorities.¹

Specialist physicians include those who practice in clinical medicine, laboratory medicine or surgery. Specialists in clinical medicine diagnose and treat diseases and physiological or psychiatric disorders and act as consultants to other physicians. Specialists in laboratory medicine study the nature, cause and development of diseases in humans. Specialists in surgery perform and supervise surgical procedures.²

Osteopaths diagnose disorders and injuries of the musculo-skeletal, circulatory and nervous systems. Treatments include manipulative therapy, medications or surgery.³ Osteopaths are regulated under the Medical Practitioners Act and must be registered by the College of Physicians and Surgeons of British Columbia in order to practise in the province.

Governing Statute: Medical Practitioners Act, R.S.B.C. 1996, Chapter 285; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Physicians and Surgeons of British Columbia (CPSBC). CPSBC registration is a requirement of medical practice in British Columbia.

Dates of Record: October 1995, September 1996, and September 1997.

Sources of Data: College of Physicians and Surgeons of British Columbia (CPSBC) and Medical Services Commission of British Columbia (MSC).

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3112, Ottawa; Employment and Immigration Canada.

² Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3111, Ottawa; Employment and Immigration Canada.

³ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3123, Ottawa; Employment and Immigration Canada.

Preparation and Updating:

The tables, derived from the CPSBC physician database, include physicians who reported a British Columbia address at the date of record. Data presented in the tables are based on employment address for the majority of physicians. Precise percentages of home versus employment or other address are not known.

Specialist information is available, and is reported separately this year, using both the Medical Services Commission of British Columbia (MSC) specialty codes and the Royal College of Physicians and Surgeons of Canada (RCPSC) certification categories. The MSC specialty data are comparable to specialty data in editions of *ROLLCALL* prior to 1995 and to the MSC specialty data in *ROLLCALL UPDATE 96*. The RCPSC specialty data are comparable to the *ROLLCALL 95* specialty data and to the RCPSC specialty data in *ROLLCALL UPDATE 96*.

There is currently only one directory active osteopath in the province; he/she is not included in any of the tables that follow.

Definition of Terms:

1. Registration Status

Tables 1a, 1b and 1c include those physicians who, at the date of record, were registered by the CPSBC on the *full*, *special* or *temporary* registers. Physicians on these registers are designated Directory Active and are licensed to practise medicine in British Columbia. The temporary register includes those who are in postgraduate training or who have a temporary licence to practise. In the tables that follow, Directory Active physicians are reported as either:

- (a) *Non-Postgraduate* (i.e., Directory Active physicians who, according to the records of the CPSBC, are not involved in postgraduate work) or;
- (b) *Postgraduate* (i.e., Directory Active Physicians who, according to the records of the CPSBC, are involved in postgraduate work). They may be fully registered or on the temporary, educational register.

2. Age and Sex

Table 2 reports age and sex information for Directory Active physicians. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. MSC Specialty Group

Tables 3a and 3b present number and number per 10,000 population of non-postgraduate physicians by broad Medical Services Commission of British Columbia (MSC) specialty group. Table 3c shows the average annual rates of change in these numbers. Data from *ROLLCALL UPDATE 96* are presented for comparison, as 1995 data by MSC specialty were unavailable.

The MSC specialty codes are based on billings volume and are developed to establish practice profiles. The MSC specialty code may not necessarily reflect the actual MSC specialty field at the date

of record. For September 1996 the MSC specialty codes from March 1996 were used, while for September 1997, the MSC specialty codes from March 1997 were used.

Tables 3a, 3b, and 3c group the non-postgraduate physicians into broad specialty groups as follows:

- (a) General Practice includes the MSC specialties:

Family Practice

General Practice

- (b) Clinical Specialties include the following MSC specialties:

Anaesthesia

Casualty Officer

Dermatology

Geriatric Medicine

Internal Medicine

Medical Genetics

Neurology

Neuropsychiatry

Nuclear Medicine

Occupational Medicine

Paediatric Cardiology

Paediatrics

Physical Medicine

Psychiatry

Public Health

Radiology

- (c) Laboratory Medicine Specialties include the following MSC specialties:

Medical Microbiology

Pathology

- (d) Surgical Specialties include the following MSC specialties:

General Surgery

Neurosurgery

Obstetrics and Gynaecology

Ophthalmology

Orthopaedic Surgery

Otolaryngology

Plastic Surgery

Thoracic and Cardiovascular Surgery

Urology

Vascular Surgery

4. MSC Specialty Group and Sex

Table 4 presents the non-postgraduate physician population by MSC specialty group and sex.

5. MSC Specialty

Table 5 shows the number of physicians disaggregated into specific MSC specialties. The MSC specialties shown are as follows:

(a) General Practice;

(b) Family Practice;

(c) Anaesthesia;

(d) Community Medicine;⁴

(e) Dermatology;

(f) Emergency Medicine;⁵

⁴ Includes the specialty designations Public Health and Occupational Medicine.

⁵ Includes the specialty designation Casualty Officer.

- | | |
|-------------------------------------|--|
| (g) General Surgery; | (r) Otolaryngology; |
| (h) Internal Medicine; ⁶ | (s) Paediatrics; ⁷ |
| (i) Medical Genetics; | (t) Pathology; |
| (j) Medical Microbiology; | (u) Physical Medicine; |
| (k) Neurology; | (v) Plastic Surgery; |
| (l) Neuropsychiatry; | (w) Psychiatry; |
| (m) Neurosurgery; | (x) Radiology; |
| (n) Nuclear Medicine; | (y) Thoracic and Cardiovascular Surgery; |
| (o) Obstetrics and Gynaecology; | (z) Urology; |
| (p) Ophthalmology; | (aa) Vascular Surgery. |
| (q) Orthopaedic Surgery; | |

6. RCPSC Specialty Group

Tables 6a and 6b present number and number per 10,000 population of non-postgraduate physicians by broad Royal College of Physicians and Surgeons of Canada (RCPSC) specialty group. Table 6c shows the average annual rates of change in these numbers. Data from *ROLLCALL 95* are presented for comparison.

The RCPSC specialty codes reflect the actual training of physicians but may not necessarily reflect current practice.

Tables 6a, 6b, and 6c group the non-postgraduate physicians into broad specialty groups as follows:

- (a) General Practice includes the RCPSC specialties:

Family Practice

General Practice

- (b) Clinical Specialties include the following RCPSC specialties:

Anaesthesia	Infectious Diseases
Cardiology	Internal Medicine
Clinical Immunology and Allergy	Medical Genetics
Community Medicine	Medical Oncology
Dermatology	Nephrology
Dermatology and Syphilology ⁸	Neurology
Diagnostic Radiology	Nuclear Medicine
Emergency Medicine	Occupational Medicine
Endocrinology and Metabolism	Paediatric Cardiology ⁸
Gastroenterology	Paediatrics
Geriatric Medicine	Physical Medicine and Rehabilitation
Haematology	Psychiatry

⁶ Includes the specialty designations Internal Medicine and Geriatric Medicine.

⁷ Includes the specialty designations Paediatrics and Paediatric Cardiology.

⁸ Specialty Program no longer offered by the RCPSC.

Public Health⁹
 Radiation Oncology
 Radiology - Therapeutic¹⁰

Respiratory Medicine⁹
 Respirology
 Rheumatology

(c) Laboratory Medicine Specialties include the following RCPSC specialties:

Anatomical Pathology
 Bacteriology¹⁰
 General Pathology
 Haematological Pathology

Medical Biochemistry
 Medical Microbiology
 Neuropathology
 Pathology¹⁰

(d) Surgical Specialties include the following RCPSC specialties:

Cardiac Surgery
 Cardiothoracic Surgery
 Cardiovascular & Thoracic Surgery⁹
 General Surgery
 Neurosurgery
 Obstetrics and Gynaecology
 Ophthalmology

Orthopaedic Surgery
 Otolaryngology
 Paediatric General Surgery
 Plastic Surgery
 Thoracic Surgery
 Urology
 Vascular Surgery

7. RCPSC Specialty Group and Sex

Table 7 presents the non-postgraduate physician population by RCPSC specialty group and sex.

8. RCPSC Specialty

Table 8 shows the number of physicians disaggregated into specific RCPSC specialties. The RCPSC specialties shown are as follows:

- | | |
|---------------------------------------|--------------------------------------|
| (a) General Practice; | (k) Haematology; |
| (b) Family Practice; | (l) Internal Medicine; ¹¹ |
| (c) Anaesthesia; | (m) Medical Biochemistry; |
| (d) Cardiology; ¹² | (n) Medical Genetics; |
| (e) Community Medicine; ¹³ | (o) Medical Microbiology; |
| (f) Dermatology; ¹⁴ | (p) Medical Oncology; |
| (g) Endocrinology and Metabolism | (q) Nephrology; |
| (h) Emergency Medicine; | (r) Neurology; |
| (i) Gastroenterology; | (s) Nuclear Medicine; |
| (j) Geriatric Medicine; | (t) Paediatrics; |

⁹ Specialty Program no longer offered by the RCPSC under this designation.

¹⁰ Specialty Program no longer offered by the RCPSC.

¹¹ Includes the specialty designations Internal Medicine, Clinical Immunology & Allergy, and Infectious Diseases.

¹² Includes the specialty designations Cardiology and Paediatric Cardiology.

¹³ Includes the specialty designations Community Medicine, Occupational Medicine, and Public Health.

¹⁴ Includes the specialty designations Dermatology and Dermatology & Syphilology.

- | | |
|---|-------------------------------------|
| (u) General Pathology; ¹⁵ | (dd) General Surgery; ¹⁶ |
| (v) Anatomical Pathology; | (ee) Neurosurgery; |
| (w) Physical Medicine and Rehabilitation; | (ff) Obstetrics and Gynaecology; |
| (x) Psychiatry; | (gg) Ophthalmology; |
| (y) Radiation Oncology; | (hh) Orthopaedic Surgery; |
| (z) Diagnostic Radiology; ¹⁷ | (ii) Otolaryngology; |
| (aa) Respiratory Medicine/Respirology; ¹⁸ | (jj) Plastic Surgery; |
| (bb) Rheumatology; | (kk) Urology; |
| (cc) Cardiovascular and Thoracic Surgery; ¹⁹ | (ll) Vascular Surgery. |

9. Analysis of Change

Table 9 illustrates the sources of change which affected the supply of non-postgraduate physicians from October 1995 to September 1997.

New registrants include physicians who registered *for the first time* with the CPSBC subsequent to October 1995 and held Directory Active non-postgraduate status in September 1997. They are recorded according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations include physicians who did not have Directory Active non-postgraduate status in October 1995 but held Directory Active non-postgraduate in September 1997, and whose initial registration with the CPSBC was before October 1995. Also included are physicians registered with the CPSBC who reported out-of-province addresses in October 1995, but reported a British Columbia address and held Directory Active non-postgraduate status in British Columbia in September 1997.

Attrition describes non-postgraduate physicians who were included in the October 1995 physician supply but who, because of death, retirement, non-renewal of licence, change to post-graduate status, or out-of-province relocation, were not included in the September 1997 physician supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of physicians among different Health Regions. The net migration total is therefore zero.

¹⁵ Includes the specialty designations General Pathology, Pathology, Bacteriology, Neuropathology, and Haematological Pathology.

¹⁶ Includes the specialty designations General Surgery and Paediatric General Surgery.

¹⁷ Includes the specialty designations Diagnostic Radiology and Therapeutic Radiology.

¹⁸ Includes the specialty designations Respiratory Medicine and Respirology.

¹⁹ Includes the specialty designations Cardiovascular & Thoracic Surgery, Cardiac Surgery, Cardiothoracic Surgery, and Thoracic Surgery.

Table 1a
Directory Active Physicians in British Columbia
by Health Region by Registration Status
October 1995¹ and September 1997

Health Region	Non-Postgraduate		Postgraduate		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	123	123	0	1	123	124
2 West Kootenay - Boundary	137	140	1	0	138	140
3 North Okanagan	181	190	0	0	181	190
4 South Okanagan - Similkameen	364	395	0	1	364	396
5 Thompson	203	208	1	0	204	208
6 Fraser Valley	286	311	12	13	298	324
7 South Fraser Valley	653	694	1	0	654	694
8 Simon Fraser	528	540	34	32	562	572
9 Coast Garibaldi	103	106	0	0	103	106
10 Central Vancouver Island	378	391	1	2	379	393
11 Upper Island/Central Coast	177	186	0	0	177	186
12 Cariboo	79	79	1	0	80	79
13 North West	130	127	0	0	130	127
14 Peace Liard	65	59	0	0	65	59
15 Northern Interior	181	183	6	12	187	195
16 Vancouver	2,368	2,401	623	602	2,991	3,003
17 Burnaby	238	250	2	0	240	250
18 North Shore	365	372	2	2	367	374
19 Richmond	276	278	0	0	276	278
20 Capital	867	906	30	32	897	938
TOTAL	7,702	7,939	714	697	8,416	8,636

¹ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Directory Active Physicians in British Columbia
per 10,000 Population by Health Region by Registration Status
October 1995 and September 1997

Health Region	Non-Postgraduate		Postgraduate		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	16.04	15.45	0.00	0.13	16.04	15.58
2 West Kootenay - Boundary	17.21	17.19	0.13	0.00	17.33	17.19
3 North Okanagan	16.39	16.43	0.00	0.00	16.39	16.43
4 South Okanagan - Similkameen	16.92	17.62	0.00	0.04	16.92	17.67
5 Thompson	16.19	15.76	0.08	0.00	16.26	15.76
6 Fraser Valley	12.83	13.30	0.54	0.56	13.37	13.86
7 South Fraser Valley	12.53	12.61	0.02	0.00	12.55	12.61
8 Simon Fraser	18.25	17.62	1.17	1.04	19.42	18.66
9 Coast Garibaldi	14.72	14.08	0.00	0.00	14.72	14.08
10 Central Vancouver Island	16.63	16.46	0.04	0.08	16.68	16.55
11 Upper Island/Central Coast	15.40	15.49	0.00	0.00	15.40	15.49
12 Cariboo	11.27	10.56	0.14	0.00	11.41	10.56
13 North West	14.82	13.99	0.00	0.00	14.82	13.99
14 Peace Liard	10.42	9.05	0.00	0.00	10.42	9.05
15 Northern Interior	14.47	14.05	0.48	0.92	14.95	14.97
16 Vancouver	44.91	43.55	11.81	10.92	56.72	54.47
17 Burnaby	13.12	13.34	0.11	0.00	13.23	13.34
18 North Shore	21.14	21.05	0.12	0.11	21.25	21.17
19 Richmond	18.65	17.70	0.00	0.00	18.65	17.70
20 Capital	26.57	27.29	0.92	0.96	27.49	28.25
TOTAL	20.52	20.24	1.90	1.78	22.42	22.02

Table 1c
Average Annual Rate of Change¹: Directory Active Physicians in British Columbia
by Health Region by Registration Status
October 1995 to September 1997

Health Region	Non-Postgraduate		Postgraduate		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	0.00	-1.94	*	*	0.42	-1.53
2 West Kootenay - Boundary	1.14	-0.04	*	*	0.75	-0.42
3 North Okanagan	2.56	0.12	*	*	2.56	0.12
4 South Okanagan - Similkameen	4.36	2.16	*	*	4.49	2.30
5 Thompson	1.28	-1.37	*	*	1.02	-1.62
6 Fraser Valley	4.47	1.88	4.26	1.68	4.46	1.87
7 South Fraser Valley	3.23	0.36	*	*	3.15	0.28
8 Simon Fraser	1.18	-1.80	-3.11	-5.97	0.92	-2.05
9 Coast Garibaldi	1.51	-2.28	*	*	1.51	-2.28
10 Central Vancouver Island	1.78	-0.53	*	*	1.91	-0.40
11 Upper Island/Central Coast	2.62	0.30	*	*	2.62	0.30
12 Cariboo	0.00	-3.30	*	*	-0.65	-3.94
13 North West	-1.21	-2.96	*	*	-1.21	-2.96
14 Peace Liard	-4.93	-7.07	*	*	-4.93	-7.07
15 Northern Interior	0.57	-1.51	*	*	2.21	0.09
16 Vancouver	0.72	-1.59	-1.77	-4.03	0.21	-2.09
17 Burnaby	2.60	0.86	*	*	2.15	0.42
18 North Shore	1.00	-0.21	*	*	0.99	-0.21
19 Richmond	0.38	-2.69	*	*	0.38	-2.69
20 Capital	2.32	1.41	3.42	2.50	2.36	1.44
TOTAL	1.59	-0.69	-1.25	-3.47	1.36	-0.93

¹ A 23 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Directory Active Physicians in British Columbia
by Health Region by Age and Sex¹
September 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	12	9	36	13	26	2	14	1	9	1	1	0	98	26	124
2 West Kootenay - Boundary	0	0	8	7	42	25	27	7	17	1	6	0	0	0	100	40	140
3 North Okanagan	0	0	22	11	44	16	41	6	34	1	15	0	0	0	156	34	190
4 South Okanagan - Similkameen	0	0	32	18	112	41	101	11	50	6	22	2	1	0	318	78	396
5 Thompson	0	0	16	9	65	8	52	14	33	1	10	0	0	0	176	32	208
6 Fraser Valley	0	0	30	26	76	14	89	17	35	3	30	2	1	1	261	63	324
7 South Fraser Valley	0	0	63	32	144	92	169	47	80	6	53	8	0	0	509	185	694
8 Simon Fraser	1	2	63	32	119	60	131	30	81	11	37	2	3	0	435	137	572
9 Coast Garibaldi	0	0	10	6	27	12	24	4	13	1	9	0	0	0	83	23	106
10 Central Vancouver Island	0	0	25	15	104	35	95	17	61	8	32	1	0	0	317	76	393
11 Upper Island/Central Coast	0	0	13	13	46	22	48	9	22	2	10	0	1	0	140	46	186
12 Cariboo	0	0	10	4	23	6	19	3	10	0	4	0	0	0	66	13	79
13 North West	0	0	16	11	33	8	31	7	14	2	4	1	0	0	98	29	127
14 Peace Liard	0	0	10	1	19	5	10	1	8	1	4	0	0	0	51	8	59
15 Northern Interior	2	0	25	12	58	20	43	4	16	1	11	0	3	0	158	37	195
16 Vancouver	4	4	482	320	531	334	552	202	305	55	182	20	8	4	2,064	939	3,003
17 Burnaby	0	0	24	18	52	32	50	17	31	5	19	1	1	0	177	73	250
18 North Shore	0	0	22	26	66	47	74	25	63	4	41	6	0	0	266	108	374
19 Richmond	0	0	26	13	57	40	68	14	32	5	22	0	1	0	206	72	278
20 Capital	0	0	56	43	176	99	238	53	156	14	90	7	5	1	721	217	938
TOTAL	7	6	965	626	1,830	929	1,888	490	1,075	128	610	51	25	6	6,400	2,236	8,636

¹ There are no physicians with missing sex information.

Table 3a
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by MSC Specialty²
September 1996³ and September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	85	88	24	20	1	1	13	14	123	123
2 West Kootenay - Boundary	99	101	23	23	2	2	13	14	137	140
3 North Okanagan	128	124	35	37	3	3	24	26	190	190
4 South Okanagan - Similkameen	219	222	95	106	6	7	59	60	379	395
5 Thompson	122	120	43	45	7	7	35	36	207	208
6 Fraser Valley	197	204	52	59	9	8	35	40	293	311
7 South Fraser Valley	434	446	150	158	7	10	75	80	666	694
8 Simon Fraser	276	285	140	152	23	24	79	79	518	540
9 Coast Garibaldi	81	86	10	9	0	0	11	11	102	106
10 Central Vancouver Island	240	244	76	81	5	5	59	61	380	391
11 Upper Island/Central Coast	123	129	34	36	3	3	19	18	179	186
12 Cariboo	66	64	10	10	0	0	6	5	82	79
13 North West	102	95	18	17	2	2	9	13	131	127
14 Peace Liard	51	49	3	4	1	1	5	5	60	59
15 Northern Interior	119	117	32	33	7	5	25	28	183	183
16 Vancouver	990	994	946	987	93	95	310	325	2,339	2,401
17 Burnaby	160	161	51	45	13	14	27	30	251	250
18 North Shore	211	212	103	109	6	6	43	45	363	372
19 Richmond	162	162	71	81	3	4	33	31	269	278
20 Capital	497	508	260	275	19	17	104	106	880	906
TOTAL	4,362	4,411	2,176	2,287	210	214	984	1,027	7,732	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Editions of *ROLLCALL* prior to 1995 used MSC specialty designations, while *ROLLCALL 95* used RCPSC specialty certification. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

³ The September 1996 numbers for some regions may differ slightly from those published in *ROLLCALL UPDATE 96* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 3b
Non-Postgraduate Physicians¹ in British Columbia
per 10,000 Population by Health Region by MSC Specialty²
September 1996 and September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
1 East Kootenay	10.86	11.05	3.07	2.51	0.13	0.13	1.66	1.76	15.72	15.45
2 West Kootenay - Boundary	12.25	12.40	2.85	2.82	0.25	0.25	1.61	1.72	16.95	17.19
3 North Okanagan	11.33	10.72	3.10	3.20	0.27	0.26	2.12	2.25	16.82	16.43
4 South Okanagan - Similkameen	10.01	9.91	4.34	4.73	0.27	0.31	2.70	2.68	17.32	17.62
5 Thompson	9.46	9.09	3.33	3.41	0.54	0.53	2.71	2.73	16.04	15.76
6 Fraser Valley	8.60	8.72	2.27	2.52	0.39	0.34	1.53	1.71	12.79	13.30
7 South Fraser Valley	8.08	8.11	2.79	2.87	0.13	0.18	1.40	1.45	12.39	12.61
8 Simon Fraser	9.22	9.30	4.68	4.96	0.77	0.78	2.64	2.58	17.30	17.62
9 Coast Garibaldi	11.21	11.43	1.38	1.20	0.00	0.00	1.52	1.46	14.11	14.08
10 Central Vancouver Island	10.38	10.27	3.29	3.41	0.22	0.21	2.55	2.57	16.43	16.46
11 Upper Island/Central Coast	10.49	10.74	2.90	3.00	0.26	0.25	1.62	1.50	15.26	15.49
12 Cariboo	9.13	8.56	1.38	1.34	0.00	0.00	0.83	0.67	11.34	10.56
13 North West	11.43	10.47	2.02	1.87	0.22	0.22	1.01	1.43	14.68	13.99
14 Peace Liard	7.97	7.52	0.47	0.61	0.16	0.15	0.78	0.77	9.37	9.05
15 Northern Interior	9.32	8.98	2.51	2.53	0.55	0.38	1.96	2.15	14.33	14.05
16 Vancouver	18.29	18.03	17.48	17.90	1.72	1.72	5.73	5.89	43.21	43.55
17 Burnaby	8.63	8.59	2.75	2.40	0.70	0.75	1.46	1.60	13.54	13.34
18 North Shore	12.06	12.00	5.88	6.17	0.34	0.34	2.46	2.55	20.74	21.05
19 Richmond	10.56	10.31	4.63	5.16	0.20	0.25	2.15	1.97	17.54	17.70
20 Capital	15.11	15.30	7.91	8.28	0.58	0.51	3.16	3.19	26.76	27.29
TOTAL	11.35	11.25	5.66	5.83	0.55	0.55	2.56	2.62	20.12	20.24

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Editions of *ROLLCALL* prior to 1995 used MSC specialty designations, while *ROLLCALL 95* used RCPSC specialty certification. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

Table 3c
Average Annual Rate of Change: Non-Postgraduate Physicians¹ in British Columbia
by Health Region by MSC Specialty²
September 1996 to September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	3.53	1.78	-16.67	-18.07	*	*	7.69	5.88	0.00	-1.69
2 West Kootenay - Boundary	2.02	1.24	0.00	-0.77	*	*	7.69	6.86	2.19	1.40
3 North Okanagan	-3.13	-5.35	5.71	3.29	*	*	8.33	5.84	0.00	-2.30
4 South Okanagan - Similkameen	1.37	-1.05	11.58	8.92	*	*	1.69	-0.73	4.22	1.74
5 Thompson	-1.64	-3.82	4.65	2.33	*	*	2.86	0.58	0.48	-1.74
6 Fraser Valley	3.55	1.48	13.46	11.19	*	*	14.29	12.00	6.14	4.02
7 South Fraser Valley	2.76	0.35	5.33	2.86	*	*	6.67	4.16	4.20	1.76
8 Simon Fraser	3.26	0.88	8.57	6.07	4.35	1.94	0.00	-2.30	4.25	1.85
9 Coast Garibaldi	6.17	1.97	-10.00	-13.56	*	*	0.00	-3.96	3.92	-0.19
10 Central Vancouver Island	1.67	-1.01	6.58	3.77	*	*	3.39	0.67	2.89	0.19
11 Upper Island/Central Coast	4.88	2.44	5.88	3.43	*	*	-5.26	-7.46	3.91	1.50
12 Cariboo	-3.03	-6.26	0.00	-3.34	*	*	*	*	-3.66	-6.87
13 North West	-6.86	-8.44	-5.56	-7.15	*	*	*	*	-3.05	-4.69
14 Peace Liard	-3.92	-5.61	*	*	*	*	*	*	-1.67	-3.40
15 Northern Interior	-1.68	-3.62	3.13	1.09	*	*	12.00	9.79	0.00	-1.98
16 Vancouver	0.40	-1.42	4.33	2.44	2.15	0.30	4.84	2.94	2.65	0.79
17 Burnaby	0.63	-0.48	-11.76	-12.73	7.69	6.51	11.11	9.89	-0.40	-1.49
18 North Shore	0.47	-0.47	5.83	4.83	*	*	4.65	3.66	2.48	1.51
19 Richmond	0.00	-2.35	14.08	11.40	*	*	-6.06	-8.27	3.35	0.92
20 Capital	2.21	1.24	5.77	4.76	-10.53	-11.38	1.92	0.95	2.95	1.97
TOTAL	1.12	-0.89	5.10	3.01	1.90	-0.12	4.37	2.30	2.68	0.64

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Editions of *ROLLCALL* prior to 1995 used MSC specialty designations, while *ROLLCALL 95* used RCPSC specialty certification. Hence, *ROLLCALL UPDATE 96* data are presented here for comparison. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 4
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by MSC Specialty² by Sex
September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total
	M	F	M	F	M	F	M	F	
1 East Kootenay	65	23	19	1	1	0	12	2	123
2 West Kootenay - Boundary	67	34	19	4	2	0	12	2	140
3 North Okanagan	96	28	33	4	3	0	24	2	190
4 South Okanagan - Similkameen	168	54	85	21	6	1	58	2	395
5 Thompson	93	27	42	3	7	0	34	2	208
6 Fraser Valley	169	35	46	13	5	3	39	1	311
7 South Fraser Valley	314	132	116	42	10	0	69	11	694
8 Simon Fraser	209	76	115	37	17	7	76	3	540
9 Coast Garibaldi	64	22	8	1	0	0	11	0	106
10 Central Vancouver Island	192	52	62	19	5	0	58	3	391
11 Upper Island/Central Coast	88	41	34	2	2	1	16	2	186
12 Cariboo	53	11	8	2	0	0	5	0	79
13 North West	73	22	13	4	2	0	10	3	127
14 Peace Liard	41	8	4	0	1	0	5	0	59
15 Northern Interior	92	25	27	6	3	2	26	2	183
16 Vancouver	613	381	729	258	63	32	273	52	2,401
17 Burnaby	107	54	32	13	9	5	29	1	250
18 North Shore	127	85	91	18	4	2	42	3	372
19 Richmond	112	50	66	15	1	3	27	4	278
20 Capital	354	154	232	43	13	4	101	5	906
TOTAL	3,097	1,314	1,781	506	154	60	927	100	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

Table 5
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by MSC Specialty^{2,3}
September 1997

Health Region	General Practice	Family Practice	General Practice Subtotal	Anaesthesia	Community Medicine ⁴	Dermatology	Emergency Medicine	General Surgery	Internal Medicine ⁵	Medical Genetics	Medical Microbiology	Neurology	Neurosurgery	Nuclear Medicine
1 East Kootenay	64	24	88	1	1	0	0	7	3	0	0	0	0	0
2 West Kootenay - Boundary	69	32	101	4	0	0	0	7	7	0	0	2	0	1
3 North Okanagan	78	46	124	7	1	1	0	7	9	0	1	1	0	0
4 South Okanagan - Similkameen	155	67	222	18	1	2	2	9	33	0	0	4	2	1
5 Thompson	92	28	120	11	0	1	1	11	9	0	1	3	3	1
6 Fraser Valley	133	71	204	12	0	1	0	7	13	0	1	2	0	0
7 South Fraser Valley	331	115	446	23	2	7	4	18	40	0	0	1	1	0
8 Simon Fraser	225	60	285	20	2	4	10	16	38	0	2	7	4	1
9 Coast Garibaldi	59	27	86	0	1	0	0	6	2	0	0	0	0	0
10 Central Vancouver Island	164	80	244	19	2	1	0	10	17	0	0	2	0	1
11 Upper Island/Central Coast	103	26	129	10	1	1	0	4	8	0	0	0	0	0
12 Cariboo	50	14	64	0	1	0	0	3	5	0	0	0	0	0
13 North West	73	22	95	2	1	1	0	5	3	0	0	0	0	1
14 Peace Liard	42	7	49	0	0	0	0	3	2	0	0	0	0	0
15 Northern Interior	80	37	117	6	1	1	0	7	8	0	0	2	0	0
16 Vancouver	661	333	994	127	17	29	31	50	255	4	15	40	16	8
17 Burnaby	125	36	161	7	1	2	4	4	12	0	0	2	0	0
18 North Shore	146	66	212	21	1	5	1	5	27	0	0	3	3	1
19 Richmond	122	40	162	11	2	2	3	4	22	0	0	2	0	1
20 Capital	377	131	508	41	9	7	16	19	71	1	1	6	4	2
TOTAL	3,149	1,262	4,411	340	44	65	72	202	584	5	21	77	33	18

... continued

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

³ The MSC Specialty "Neuropsychiatry" is not shown in the table as there are no physicians with this specialty in 1997.

⁴ Includes 5 physicians with the specialty designation Occupational Medicine and 39 with the specialty designation Public Health.

⁵ Includes 17 physicians with the specialty designation Geriatric Medicine.

Table 5 (continued)
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by MSC Specialty²
September 1997

Health Region	Obstetrics & Gynaecology	Ophthalmology	Orthopaedic Surgery	Otolaryngology	Paediatrics ³	Pathology	Physical Medicine	Plastic Surgery	Psychiatry	Radiology	Thoracic & Cardio-vascular Surgery	Urology	Vascular Surgery	Specialty Subtotal	Total
1 East Kootenay	1	1	3	1	2	1	0	0	4	9	0	1	0	35	123
2 West Kootenay - Boundary	2	2	1	0	2	2	0	1	5	2	0	1	0	39	140
3 North Okanagan	4	6	4	3	6	2	0	0	7	5	0	2	0	66	190
4 South Okanagan - Similkameen	10	9	11	4	11	7	3	4	19	12	2	6	3	173	395
5 Thompson	5	4	6	2	5	6	2	2	5	7	0	2	1	88	208
6 Fraser Valley	8	6	9	4	4	7	0	2	15	12	0	3	1	107	311
7 South Fraser Valley	16	16	13	6	19	10	2	4	33	27	1	4	1	248	694
8 Simon Fraser	10	16	13	6	10	22	4	5	38	18	2	7	0	255	540
9 Coast Garibaldi	3	2	0	0	2	0	0	0	3	1	0	0	0	20	106
10 Central Vancouver Island	15	16	10	4	9	5	1	2	16	13	0	3	1	147	391
11 Upper Island/Central Coast	3	2	5	2	2	3	0	0	8	6	0	2	0	57	186
12 Cariboo	1	0	0	0	1	0	0	0	1	2	0	1	0	15	79
13 North West	5	1	1	0	2	2	0	0	3	4	0	1	0	32	127
14 Peace Liard	1	0	1	0	0	1	0	0	0	2	0	0	0	10	59
15 Northern Interior	5	3	5	2	3	5	0	2	5	7	1	3	0	66	183
16 Vancouver	68	59	38	26	122	80	19	21	231	104	19	18	10	1,407	2,401
17 Burnaby	4	7	6	4	5	14	1	2	11	0	0	2	1	89	250
18 North Shore	7	7	9	4	8	6	1	4	26	15	0	4	2	160	372
19 Richmond	6	4	5	3	8	4	0	2	13	17	1	4	2	116	278
20 Capital	15	23	15	6	14	16	7	6	65	36	5	11	2	398	906
TOTAL	189	184	155	77	235	193	40	57	508	299	31	75	24	3,528	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 3a to 5 specialty is based on the MSC specialty. Please see also Tables 6a to 8 in which specialty is based on RCPSC certification.

³ Includes 4 physicians with the specialty designation Paediatric Cardiology.

Table 6a
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by RCPSC Specialty²
October 1995³ and September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	89	90	20	19	0	1	14	13	123	123
2 West Kootenay - Boundary	103	101	20	23	2	2	12	14	137	140
3 North Okanagan	119	124	39	37	4	3	19	26	181	190
4 South Okanagan - Similkameen	208	222	88	106	6	7	62	60	364	395
5 Thompson	123	121	40	45	7	7	33	35	203	208
6 Fraser Valley	190	204	52	60	8	7	36	40	286	311
7 South Fraser Valley	434	447	138	157	10	10	71	80	653	694
8 Simon Fraser	277	285	151	154	24	24	76	77	528	540
9 Coast Garibaldi	82	86	12	9	0	0	9	11	103	106
10 Central Vancouver Island	240	243	74	82	5	5	59	61	378	391
11 Upper Island/Central Coast	127	130	29	36	3	3	18	17	177	186
12 Cariboo	63	64	9	10	0	0	7	5	79	79
13 North West	101	95	16	18	2	2	11	12	130	127
14 Peace Liard	51	49	6	4	1	1	7	5	65	59
15 Northern Interior	119	117	30	33	7	5	25	28	181	183
16 Vancouver	998	995	962	992	99	94	309	320	2,368	2,401
17 Burnaby	154	161	51	46	7	13	26	30	238	250
18 North Shore	210	212	106	109	7	6	42	45	365	372
19 Richmond	171	162	71	81	2	4	32	31	276	278
20 Capital	491	509	250	275	18	16	108	106	867	906
TOTAL	4,350	4,417	2,164	2,296	212	210	976	1,016	7,702	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Editions of *ROLLCALL* prior to 1995 used only MSC specialty designations. Hence, these numbers are not comparable to editions of *ROLLCALL* prior to 1995. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

³ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL* 95 due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 6b
Non-Postgraduate Physicians¹ in British Columbia
per 10,000 Population by Health Region by RCPSC Specialty²
October 1995 and September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	11.61	11.31	2.61	2.39	0.00	0.13	1.83	1.63	16.04	15.45
2 West Kootenay - Boundary	12.94	12.40	2.51	2.82	0.25	0.25	1.51	1.72	17.21	17.19
3 North Okanagan	10.78	10.72	3.53	3.20	0.36	0.26	1.72	2.25	16.39	16.43
4 South Okanagan - Similkameen	9.67	9.91	4.09	4.73	0.28	0.31	2.88	2.68	16.92	17.62
5 Thompson	9.81	9.17	3.19	3.41	0.56	0.53	2.63	2.65	16.19	15.76
6 Fraser Valley	8.53	8.72	2.33	2.57	0.36	0.30	1.62	1.71	12.83	13.30
7 South Fraser Valley	8.33	8.12	2.65	2.85	0.19	0.18	1.36	1.45	12.53	12.61
8 Simon Fraser	9.57	9.30	5.22	5.02	0.83	0.78	2.63	2.51	18.25	17.62
9 Coast Garibaldi	11.72	11.43	1.71	1.20	0.00	0.00	1.29	1.46	14.72	14.08
10 Central Vancouver Island	10.56	10.23	3.26	3.45	0.22	0.21	2.60	2.57	16.63	16.46
11 Upper Island/Central Coast	11.05	10.83	2.52	3.00	0.26	0.25	1.57	1.42	15.40	15.49
12 Cariboo	8.99	8.56	1.28	1.34	0.00	0.00	1.00	0.67	11.27	10.56
13 North West	11.52	10.47	1.82	1.98	0.23	0.22	1.25	1.32	14.82	13.99
14 Peace Liard	8.18	7.52	0.96	0.61	0.16	0.15	1.12	0.77	10.42	9.05
15 Northern Interior	9.51	8.98	2.40	2.53	0.56	0.38	2.00	2.15	14.47	14.05
16 Vancouver	18.93	18.05	18.24	17.99	1.88	1.70	5.86	5.80	44.91	43.55
17 Burnaby	8.49	8.59	2.81	2.45	0.39	0.69	1.43	1.60	13.12	13.34
18 North Shore	12.16	12.00	6.14	6.17	0.41	0.34	2.43	2.55	21.14	21.05
19 Richmond	11.55	10.31	4.80	5.16	0.14	0.25	2.16	1.97	18.65	17.70
20 Capital	15.05	15.33	7.66	8.28	0.55	0.48	3.31	3.19	26.57	27.29
TOTAL	11.59	11.26	5.76	5.85	0.56	0.54	2.60	2.59	20.52	20.24

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Editions of *ROLLCALL* prior to 1995 used only MSC specialty designations. Hence, these numbers are not comparable to editions of *ROLLCALL* prior to 1995. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

Table 6c
Average Annual Rate of Change¹: Non-Postgraduate Physicians² in British Columbia
by Health Region by RCPSC Specialty³
October 1995 to September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total	
	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵	Number ⁴	Ratio ⁵
1 East Kootenay	0.58	-1.37	-2.64	-4.53	*	*	-3.79	-5.66	0.00	-1.94
2 West Kootenay - Boundary	-1.02	-2.17	7.56	6.31	*	*	8.37	7.11	1.14	-0.04
3 North Okanagan	2.17	-0.26	-2.71	-5.03	*	*	17.78	14.98	2.56	0.12
4 South Okanagan - Similkameen	3.46	1.28	10.20	7.88	*	*	-1.70	-3.76	4.36	2.16
5 Thompson	-0.85	-3.44	6.34	3.56	*	*	3.12	0.42	1.28	-1.37
6 Fraser Valley	3.78	1.21	7.75	5.08	*	*	5.65	3.03	4.47	1.88
7 South Fraser Valley	1.55	-1.27	6.96	3.99	0.00	-2.78	6.42	3.47	3.23	0.36
8 Simon Fraser	1.50	-1.50	1.03	-1.95	0.00	-2.95	0.68	-2.29	1.18	-1.80
9 Coast Garibaldi	2.52	-1.31	-13.94	-17.15	*	*	*	*	1.51	-2.28
10 Central Vancouver Island	0.65	-1.63	5.50	3.11	*	*	1.75	-0.55	1.78	-0.53
11 Upper Island/Central Coast	1.23	-1.07	11.94	9.41	*	*	-2.94	-5.14	2.62	0.30
12 Cariboo	0.83	-2.51	*	*	*	*	*	*	0.00	-3.30
13 North West	-3.14	-4.86	6.34	4.46	*	*	4.64	2.80	-1.21	-2.96
14 Peace Liard	-2.07	-4.27	*	*	*	*	*	*	-4.93	-7.07
15 Northern Interior	-0.88	-2.94	5.10	2.92	*	*	6.09	3.89	0.57	-1.51
16 Vancouver	-0.16	-2.45	1.62	-0.72	-2.67	-4.90	1.84	-0.50	0.72	-1.59
17 Burnaby	2.35	0.61	-5.24	-6.85	*	*	7.75	5.93	2.60	0.86
18 North Shore	0.50	-0.70	1.47	0.26	*	*	3.67	2.43	1.00	-0.21
19 Richmond	-2.78	-5.75	7.12	3.84	*	*	-1.64	-4.65	0.38	-2.69
20 Capital	1.90	0.98	5.10	4.16	-5.96	-6.80	-0.97	-1.86	2.32	1.41
TOTAL	0.80	-1.47	3.14	0.81	-0.49	-2.73	2.12	-0.18	1.59	-0.69

¹ An 23 month rate of change has been adjusted to an average annual figure.

² Excludes physicians with Directory Active postgraduate status.

³ In Tables 6a to 8 specialty is based on the RCPSC specialty. Editions of *ROLLCALL* prior to 1995 used only MSC specialty designations. Hence, these numbers are not comparable to editions of *ROLLCALL* prior to 1995. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 7
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by RCPSC Specialty² by Sex
September 1997

Health Region	General Practice		Clinical Specialties		Laboratory Medicine Specialties		Surgical Specialties		Total
	M	F	M	F	M	F	M	F	
1 East Kootenay	67	23	18	1	1	0	11	2	123
2 West Kootenay - Boundary	67	34	19	4	2	0	12	2	140
3 North Okanagan	96	28	33	4	3	0	24	2	190
4 South Okanagan - Similkameen	168	54	85	21	6	1	58	2	395
5 Thompson	94	27	42	3	7	0	33	2	208
6 Fraser Valley	169	35	47	13	4	3	39	1	311
7 South Fraser Valley	314	133	116	41	10	0	69	11	694
8 Simon Fraser	209	76	117	37	17	7	74	3	540
9 Coast Garibaldi	64	22	8	1	0	0	11	0	106
10 Central Vancouver Island	191	52	63	19	5	0	58	3	391
11 Upper Island/Central Coast	88	42	34	2	2	1	16	1	186
12 Cariboo	53	11	8	2	0	0	5	0	79
13 North West	73	22	13	5	2	0	10	2	127
14 Peace Liard	41	8	4	0	1	0	5	0	59
15 Northern Interior	92	25	27	6	3	2	26	2	183
16 Vancouver	613	382	736	256	61	33	268	52	2,401
17 Burnaby	107	54	33	13	8	5	29	1	250
18 North Shore	127	85	91	18	4	2	42	3	372
19 Richmond	112	50	66	15	1	3	27	4	278
20 Capital	355	154	231	44	13	3	101	5	906
TOTAL	3,100	1,317	1,791	505	150	60	918	98	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

Table 8
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by RCPSC Specialty²
September 1997

Health Region	General Practice	Family Practice	General Practice Subtotal	Anaesthesia	Cardiology ³	Community Medicine ⁴	Dermatology ⁵	Endocrinology & Metabolism	Emergency Medicine	Gastroenterology	Geriatric Medicine	Haematology	Internal Medicine ⁶
1 East Kootenay	66	24	90	1	0	0	0	0	0	1	0	0	2
2 West Kootenay - Boundary	69	32	101	4	0	0	0	0	0	0	0	0	6
3 North Okanagan	78	46	124	7	1	1	1	0	0	0	0	0	7
4 South Okanagan - Similkameen	155	67	222	18	5	1	2	0	2	3	1	1	11
5 Thompson	93	28	121	11	0	0	1	0	1	1	0	0	5
6 Fraser Valley	133	71	204	12	0	0	1	2	0	1	0	0	10
7 South Fraser Valley	332	115	447	23	4	2	7	1	4	3	2	0	23
8 Simon Fraser	225	60	285	20	7	2	4	2	10	3	1	1	14
9 Coast Garibaldi	59	27	86	0	0	1	0	0	0	0	0	0	2
10 Central Vancouver Island	163	80	243	20	0	2	1	0	1	0	0	0	12
11 Upper Island/Central Coast	103	27	130	10	0	1	1	0	0	0	0	0	7
12 Cariboo	50	14	64	0	1	1	0	0	0	0	0	0	3
13 North West	73	22	95	2	0	1	1	0	0	0	0	0	3
14 Peace Liard	42	7	49	0	0	0	0	0	0	0	0	1	1
15 Northern Interior	80	37	117	6	0	1	1	0	0	0	0	0	7
16 Vancouver	662	333	995	126	26	19	29	9	31	9	11	14	152
17 Burnaby	125	36	161	7	0	1	2	1	4	0	0	1	8
18 North Shore	145	67	212	21	2	1	5	1	1	2	1	0	19
19 Richmond	122	40	162	10	5	3	2	0	3	1	0	2	14
20 Capital	378	131	509	41	12	9	7	1	16	8	2	0	33
TOTAL	3,153	1,264	4,417	339	63	46	65	17	73	32	18	20	339

... continued

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

³ Includes 4 physicians with the specialty designation Paediatric Cardiology.

⁴ Includes 5 physicians with the specialty designation Occupational Medicine and 8 with the specialty designation Public Health.

⁵ Includes 3 physicians with the specialty designation Dermatology and Syphilology.

⁶ Includes 9 physicians with the specialty designation Clinical Immunology and Allergy and 6 with the specialty designation Infectious Diseases.

Table 8 (continued)
Non-Postgraduate Physicians¹ in British Columbia
by Health Region by RCPSC Specialty²
September 1997

Health Region	Medical Bio- chemistry	Medical Genetics	Medical Micro- biology	Medical Oncology	Nephrology	Neurology	Nuclear Medicine	Paediatrics	General Pathology ³	Anatomical Pathology	Physical Medicine & Rehab- ilitation	Psych- iatry	Radiation Oncology	Diagnostic Radiology ⁴
1 East Kootenay	0	0	0	0	0	0	0	2	1	0	0	4	0	9
2 West Kootenay - Boundary	0	0	0	0	1	2	1	2	2	0	0	5	0	2
3 North Okanagan	0	0	1	0	0	1	0	6	2	0	0	7	0	5
4 South Okanagan - Similkameen	0	0	0	1	2	4	1	10	6	1	3	19	0	12
5 Thompson	0	0	1	1	1	3	1	5	4	2	2	5	0	7
6 Fraser Valley	0	0	0	0	0	2	0	4	5	2	0	15	0	11
7 South Fraser Valley	0	0	1	5	0	1	0	19	7	2	2	32	7	20
8 Simon Fraser	2	0	2	0	3	7	1	10	13	7	4	38	0	18
9 Coast Garibaldi	0	0	0	0	0	0	0	2	0	0	0	3	0	1
10 Central Vancouver Island	0	0	0	1	0	2	1	9	3	2	1	16	0	13
11 Upper Island/Central Coast	0	0	0	0	0	0	0	2	2	1	0	8	0	6
12 Cariboo	0	0	0	0	0	0	0	1	0	0	0	1	0	2
13 North West	0	0	0	0	0	0	1	3	1	1	0	3	0	4
14 Peace Liard	0	0	0	0	0	0	0	0	0	1	0	0	0	2
15 Northern Interior	0	0	0	0	0	2	0	3	3	2	0	5	0	7
16 Vancouver	7	4	17	5	5	40	9	116	30	40	19	231	23	82
17 Burnaby	1	0	1	0	0	2	1	5	9	2	1	11	0	0
18 North Shore	0	0	0	0	0	3	1	8	3	3	1	26	0	15
19 Richmond	0	0	0	0	0	2	1	6	3	1	0	13	0	17
20 Capital	2	1	1	6	1	6	2	15	8	5	7	65	7	29
TOTAL	12	5	24	19	13	77	20	228	102	72	40	507	37	262

... continued

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Please see also Tables 3a to 5 in which specialty is based on MSC Specialty Code.

³ Includes 32 physicians with the specialty designation Pathology, 5 with the specialty designation Neuropathology, 9 with the specialty designation Haematological Pathology and 2 with the specialty designation Bacteriology.

⁴ Includes 6 physicians with the specialty designation Therapeutic Radiology.

Table 8 (continued)
 Non-Postgraduate Physicians¹ in British Columbia
 by Health Region by RCPSC Specialty²
 September 1997

Health Region	Respiratory Medicine/ Respirology ³	Rheuma- tology	Cardio- vascular & Thoracic Surgery ⁴	General Surgery ⁵	Neuro- surgery	Obstetrics & Gynae- cology	Ophthal- mology	Ortho- paedic Surgery	Otolaryn- gology	Plastic Surgery	Urology	Vascular Surgery	Specialty Subtotal	Total
1 East Kootenay	0	0	0	6	0	1	1	3	1	0	1	0	33	123
2 West Kootenay - Boundary	0	0	0	7	0	2	2	1	0	1	1	0	39	140
3 North Okanagan	0	1	0	7	0	4	6	4	3	0	2	0	66	190
4 South Okanagan - Similkameen	7	3	2	9	2	10	9	11	4	4	6	3	173	395
5 Thompson	0	1	0	10	3	5	4	6	2	2	2	1	87	208
6 Fraser Valley	1	1	0	7	0	8	6	9	4	2	3	1	107	311
7 South Fraser Valley	2	0	1	18	1	16	16	13	6	4	4	1	247	694
8 Simon Fraser	6	3	5	13	4	10	16	13	6	5	5	0	255	540
9 Coast Garibaldi	0	0	0	6	0	3	2	0	0	0	0	0	20	106
10 Central Vancouver Island	1	2	0	10	0	15	16	10	4	2	3	1	148	391
11 Upper Island/Central Coast	1	0	0	4	0	3	2	4	2	0	2	0	56	186
12 Cariboo	1	0	0	3	0	1	0	0	0	0	1	0	15	79
13 North West	0	0	0	5	0	4	1	1	0	0	1	0	32	127
14 Peace Liard	0	0	0	3	0	1	0	1	0	0	0	0	10	59
15 Northern Interior	1	0	1	7	0	5	3	5	2	2	3	0	66	183
16 Vancouver	22	10	19	48	16	68	59	38	25	21	16	10	1,406	2,401
17 Burnaby	1	1	0	4	0	4	7	6	4	2	2	1	89	250
18 North Shore	1	1	0	5	3	7	7	9	4	4	4	2	160	372
19 Richmond	0	2	1	4	0	6	4	5	3	2	4	2	116	278
20 Capital	5	2	6	18	4	15	23	15	6	6	11	2	397	906
TOTAL	49	27	35	194	33	188	184	154	76	57	71	24	3,522	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² In Tables 6a to 8 specialty is based on the RCPSC specialty. Please see also Tables 3a to 5 in which specialty is based on M5C Specialty Code.

³ Includes 3 physicians with the specialty designation Respirology.

⁴ Includes 10 physicians with the specialty designation Thoracic Surgery and 2 physicians with the specialty designation Cardiothoracic surgery.

⁵ Includes 4 physicians with the specialty designation Paediatric General Surgery.

Table 9
Analysis of Change in the Number of Non-Postgraduate Physicians¹
in British Columbia by Health Region
October 1995² to September 1997

Health Region	October 1995	New Registrants ^{3,4} by Place of Graduation				Reactivation ⁵	Attrition ⁶	Net Intra- provincial Migration	September 1997
		B.C.	Other Canada	Other Country	Subtotal				
1 East Kootenay	123	0	4	2	6	6	12	0	123
2 West Kootenay - Boundary	137	1	5	2	8	4	12	3	140
3 North Okanagan	181	0	5	2	7	4	12	10	190
4 South Okanagan - Similkameen	364	4	10	7	21	12	29	27	395
5 Thompson	203	0	9	4	13	9	19	2	208
6 Fraser Valley	286	2	9	7	18	20	21	8	311
7 South Fraser Valley	653	7	10	10	27	33	30	11	694
8 Simon Fraser	528	9	6	5	20	14	24	2	540
9 Coast Garibaldi	103	1	2	2	5	3	10	5	106
10 Central Vancouver Island	378	2	11	4	17	15	31	12	391
11 Upper Island/Central Coast	177	3	8	7	18	6	15	0	186
12 Cariboo	79	0	1	1	2	3	1	-4	79
13 North West	130	2	8	6	16	5	13	-11	127
14 Peace Liard	65	0	2	8	10	3	9	-10	59
15 Northern Interior	181	0	5	6	11	13	18	-4	183
16 Vancouver	2,368	17	57	16	90	185	170	-72	2,401
17 Burnaby	238	1	7	0	8	11	8	1	250
18 North Shore	365	4	7	4	15	17	26	1	372
19 Richmond	276	2	4	3	9	14	27	6	278
20 Capital	867	10	24	6	40	45	59	13	906
TOTAL	7,702	65	194	102	361	422	546	0	7,939

¹ Excludes physicians with Directory Active postgraduate status.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

³ Physicians who reported B.C. addresses and were non-postgraduate registrants in September 1997 and whose date of initial registration was after October 1995.

⁴ There are no new registrant physicians with unknown place of graduation.

⁵ Physicians who reported B.C. addresses and were non-postgraduate registrants in September 1997 but not in October 1995 and who were registered for the first time before October 1995.

⁶ Physicians who reported B.C. addresses and were non-postgraduate registrants in October 1995 but not in September 1997.

PODIATRISTS

Definition: A podiatrist

...diagnoses diseases, deformities, and injuries of the human foot and treats patients using braces, casts, shields, splints, physical therapy, medications, or surgery.¹

Governing Statute: Podiatrists Act, R.S.B.C. 1996, Chapter 366; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: British Columbia Association of Podiatrists. In order to practise podiatry in British Columbia, it is necessary to hold a certificate of registration issued by the British Columbia Association of Podiatrists.

Date of Record: December 1995 and October 1997.

Source of Data: British Columbia Association of Podiatrists.

Preparation and Updating:

The tables, derived from the register supplied by the British Columbia Association of Podiatrists, include *registered* podiatrists who reported a British Columbia address at the date of record. Data presented in the tables are based on employment address for all podiatrists.

Definition of Terms:

1. Registered Podiatrists

Table 1 shows number, number per 10,000 population, and average annual rates of change in these figures for podiatrists in British Columbia registered with the B.C. Association of Podiatrists at the date of record.

2. Age and Sex

Age and sex information on registered podiatrists in British Columbia is shown in Table 2. Age information in the table is grouped according to standard age categories developed and used by Statistics Canada. In 1997, no registered podiatrists were reported to be under 25 years of age.

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3123, Ottawa: Employment and Immigration Canada.

Table 1
Registered Podiatrists in British Columbia
by Health Region
December 1995 and October 1997

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1995	1997	1995	1997	Number ²	Ratio ³
1 East Kootenay	0	0	0.00	0.00	*	*
2 West Kootenay - Boundary	0	0	0.00	0.00	*	*
3 North Okanagan	2	2	0.18	0.17	*	*
4 South Okanagan - Similkameen	4	5	0.19	0.22	*	*
5 Thompson	1	1	0.08	0.08	*	*
6 Fraser Valley	2	2	0.09	0.09	*	*
7 South Fraser Valley	9	11	0.17	0.20	*	*
8 Simon Fraser	3	6	0.10	0.20	*	*
9 Coast Garibaldi	0	0	0.00	0.00	*	*
10 Central Vancouver Island	3	4	0.13	0.17	*	*
11 Upper Island/Central Coast	1	1	0.09	0.08	*	*
12 Cariboo	0	0	0.00	0.00	*	*
13 North West	0	1	0.00	0.11	*	*
14 Peace Liard	0	0	0.00	0.00	*	*
15 Northern Interior	1	1	0.08	0.08	*	*
16 Vancouver	20	19	0.38	0.34	-2.64	-4.88
17 Burnaby	4	4	0.22	0.21	*	*
18 North Shore	5	5	0.29	0.28	*	*
19 Richmond	5	5	0.34	0.32	*	*
20 Capital	11	12	0.34	0.36	4.64	3.71
TOTAL	71	79	0.19	0.20	5.73	3.35

¹ A 23 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Registered Podiatrists in British Columbia
by Health Region by Age and Sex¹
October 1997

Health Region	25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 West Kootenay - Boundary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 North Okanagan	0	0	2	0	0	0	0	0	0	0	0	0	2	0	2
4 South Okanagan - Similkameen	0	0	1	0	3	0	0	0	1	0	0	0	5	0	5
5 Thompson	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1
6 Fraser Valley	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2
7 South Fraser Valley	1	0	7	1	1	1	0	0	0	0	0	0	9	2	11
8 Simon Fraser	1	2	1	1	0	0	0	0	1	0	0	0	3	3	6
9 Coast Garibaldi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Central Vancouver Island	1	0	1	0	2	0	0	0	0	0	0	0	4	0	4
11 Upper Island/Central Coast	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1
12 Cariboo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 North West	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1
14 Peace Liard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Northern Interior	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
16 Vancouver	3	1	6	1	4	0	1	0	2	0	1	0	17	2	19
17 Burnaby	1	1	1	0	1	0	0	0	0	0	0	0	3	1	4
18 North Shore	1	0	1	1	2	0	0	0	0	0	0	0	4	1	5
19 Richmond	1	0	1	0	3	0	0	0	0	0	0	0	5	0	5
20 Capital	0	0	6	0	4	0	1	0	1	0	0	0	12	0	12
TOTAL	10	4	29	4	23	1	2	0	5	0	1	0	70	9	79

¹ There are no podiatrists under the age of 25 and no podiatrists with missing sex information.

VI. NURSING SERVICES

LICENSED PRACTICAL NURSES

Definition: A licensed practical nurse

...may be employed in a wide variety of health care settings and may carry out such nursing duties related to the care of patients as are consistent with [his/her] training and ability. All such duties are to be carried out under the direction of a duly qualified physician who is attending the patient, or under the supervision of a registered nurse who is providing service to the patient, except in an emergency when the services of a licensed practical nurse may be urgently required. Provided that the attending physician gives directions and assumes responsibility with respect to the ability of licensed practical nurses (LPN's) to carry out such services in a satisfactory manner, LPN's may also undertake nursing service for patients in private homes.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: British Columbia Council of Licensed Practical Nurses (BCCLPN) and the College of Licensed Practical Nurses of British Columbia (CLPNBC).² Licensed members of the CLPNBC (formerly the BCCLPN) have use of the title *nurse*; and exclusive use of the titles: *licensed practical nurse* and *L.P.N.*

Dates of Record: September 1995 and September 1997.

Source of Data: British Columbia Council of Licensed Practical Nurses (BCCLPN) and the College of Licensed Practical Nurses of British Columbia (CLPNBC).

Preparation and Updating:

The tables were prepared from registration data maintained by the BCCLPN and the CLPNBC and include licensed practical nurses (LPN's) who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when LPN's report employment in nursing and employment address is available. In 1995 and 1997, employment address was available for 84% and 87% of LPN's employed in nursing, respectively. Home address is used for the remainder, as well as for LPN's who are not employed in nursing.

Definition of Terms:

1. Licensed Practical Nurses

Table 1 reports the number and number per 10,000 population of LPN's in British Columbia, as well as the average annual rates of change in these figures.

¹ Adapted from information provided by the College of Licensed Practical Nurses of British Columbia, and the Licensed Practical Nurses Regulation (under the Health Professions Act), B.C. Reg. 71/96. See also *National Occupational Classification 1992*, Major Group 32, No. 3233, Ottawa: Employment and Immigration Canada.

² On March 22, 1996, the College of Licensed Practical Nurses of British Columbia (CLPNBC) replaced the British Columbia Council of Licensed Practical Nurses (BCCLPN) as the regulatory body for licensed practical nurses.

2. Age and Sex

Age and sex information for LPN's in British Columbia, derived from the CLPNBC registration database, is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 reports the number of LPN's based on their employment status as noted on the CLPNBC annual licence renewal form. The categories used are:

- (a) Employed in Nursing;
 - (i) Full-Time
 - (ii) Part-Time
 - (iii) Seasonal/Casual
- (b) Employed in Other Field;
- (c) Not Employed;
- (d) Unknown.

4. Place of Employment

Place of employment was reported by the registrant on the annual licence renewal form. Table 4 reports the number of LPN's employed in nursing by the type of institution in which they are employed. The categories used on the registration form were:

- | | |
|---|--|
| (a) Acute Care General Hospital; | (g) Community Health Agency; |
| (b) Activation/Rehab Hospital; | (h) Physician's Office/Family Practice Unit; |
| (c) Extended Care Hospital; | (i) Educational Institution; |
| (d) Other Long Term Care Facility/Nursing Home (Intermediate Care/Personal Care); | (j) Business/Industry; |
| (e) Psychiatric Hospital; | (k) Other; |
| (f) Visiting Care Agency/Home Care; | (l) Unknown. |

5. Field of Practice

Field of practice was reported by the registrant on the annual licence renewal form. Table 5 reports the number of LPN's employed in nursing by their field of practice. The categories used on the registration form were:

- | | |
|--|---|
| (a) Medical/Surgical General; | (g) Generalized Practice (e.g., Float Pool, Occupational Health, Small Hospital); |
| (b) Medical/Surgical Specialties (e.g., ICU, OR, Emergency, Dialysis); | (h) Teaching; |
| (c) Maternal/Newborn; | (i) Administration; |
| (d) Psychiatric; | (j) Rehabilitation; |
| (e) Paediatric; | (k) Other; |
| (f) Geriatric; | (l) Unknown. |

6. Job Title

Job title was reported by the registrant on the annual licence renewal form. Table 6 reports the number of LPN's employed in nursing according to their job title. The categories used are:

- (a) Licensed Practical Nurse (LPN);
- (b) Long Term Care Aide/Nurses Aide (e.g., Patient Care Aide, Activity Aide);
- (c) Orderly;
- (d) Other;
- (e) Unknown.

7. Analysis of Change

Table 7 shows sources of change that affected the supply of LPN's from September 1995 to September 1997.

New registrants include LPN's who were licensed in September 1997 and who registered with the BCCLPN or the CLPNBC *for the first time* subsequent to September 1995. New registrants are recorded according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported an out-of-province address.

Reactivations represent LPN's who were not licensed in British Columbia in September 1995 but were licensed in the province in September 1997, and whose date of initial registration was before September 1995. Also included are LPN's who reported out-of-province addresses in September 1995, but who reported British Columbia addresses in September 1997.

Attrition describes LPN's who were included in the September 1995 LPN supply, but who, because of death, retirement, out-of-province relocation or non-renewal of licence, were not included in the September 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of LPN's among different Health Regions. The net migration total is therefore zero.

Table 1
Licensed Practical Nurses in British Columbia
by Health Region
September 1995 and September 1997

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1995	1997	1995	1997	Number ²	Ratio ³
1 East Kootenay	178	188	23.22	23.62	2.77	0.86
2 West Kootenay - Boundary	244	219	30.64	26.89	-5.26	-6.32
3 North Okanagan	229	212	20.74	18.33	-3.78	-5.98
4 South Okanagan - Similkameen	532	517	24.72	23.07	-1.42	-3.40
5 Thompson	247	226	19.69	17.13	-4.35	-6.74
6 Fraser Valley	256	236	11.49	10.09	-3.99	-6.27
7 South Fraser Valley	458	392	8.79	7.12	-7.49	-9.95
8 Simon Fraser	357	313	12.34	10.21	-6.37	-9.01
9 Coast Garibaldi	108	94	15.43	12.49	-6.71	-10.05
10 Central Vancouver Island	481	456	21.16	19.20	-2.63	-4.75
11 Upper Island/Central Coast	219	195	19.06	16.24	-5.64	-7.69
12 Cariboo	103	110	14.69	14.71	3.34	0.07
13 North West	134	112	15.28	12.34	-8.58	-10.13
14 Peace Liard	108	88	17.32	13.51	-9.73	-11.68
15 Northern Interior	157	178	12.55	13.67	6.48	4.36
16 Vancouver	878	824	16.65	14.95	-3.12	-5.26
17 Burnaby	122	91	6.73	4.86	-13.63	-15.04
18 North Shore	145	151	8.40	8.55	2.05	0.88
19 Richmond	128	105	8.65	6.69	-9.43	-12.08
20 Capital	589	545	18.05	16.41	-3.81	-4.63
TOTAL	5,673	5,252	15.11	13.39	-3.78	-5.86

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

Table 2
Licensed Practical Nurses in British Columbia
by Health Region by Age and Sex¹
September 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	1	8	3	22	0	67	2	66	0	17	0	0	0	2	6	182	188
2 West Kootenay - Boundary	0	3	1	20	5	76	3	86	0	20	0	0	0	5	9	210	219
3 North Okanagan	0	2	0	24	1	71	5	77	2	24	0	2	2	2	10	202	212
4 South Okanagan - Similkameen	2	10	13	67	17	152	13	173	4	57	0	2	0	7	49	468	517
5 Thompson	1	1	2	20	1	69	1	98	3	27	0	0	0	3	8	218	226
6 Fraser Valley	0	3	0	32	5	86	3	72	2	27	0	1	0	5	10	226	236
7 South Fraser Valley	1	12	4	56	3	99	7	149	4	50	0	3	0	4	19	373	392
8 Simon Fraser	0	4	2	36	12	93	14	113	0	29	0	1	0	9	28	285	313
9 Coast Garibaldi	0	4	1	14	1	34	1	29	1	9	0	0	0	0	4	90	94
10 Central Vancouver Island	0	14	3	51	4	164	5	168	2	39	0	3	0	3	14	442	456
11 Upper Island/Central Coast	0	2	0	32	3	70	1	60	0	24	0	1	0	2	4	191	195
12 Cariboo	0	2	0	9	0	36	0	52	0	10	0	0	0	1	0	110	110
13 North West	0	3	1	11	2	35	0	41	1	14	0	1	0	3	4	108	112
14 Peace Liard	0	2	0	9	1	27	0	39	0	9	0	1	0	0	1	87	88
15 Northern Interior	0	6	3	22	2	59	2	61	0	21	0	1	0	1	7	171	178
16 Vancouver	2	17	19	135	36	199	53	229	15	96	1	3	4	15	130	694	824
17 Burnaby	0	3	1	23	3	21	0	25	3	12	0	0	0	0	7	84	91
18 North Shore	0	2	1	32	4	50	4	37	1	15	0	0	1	4	11	140	151
19 Richmond	0	0	2	20	5	29	0	35	1	11	0	1	0	1	8	97	105
20 Capital	0	10	3	62	17	161	25	175	5	67	1	8	1	10	52	493	545
TOTAL	7	108	59	697	122	1,598	139	1,785	44	578	2	28	8	77	381	4,871	5,252

¹ There are no LPN's with missing sex information.

Table 3
Licensed Practical Nurses in British Columbia
by Health Region by Employment Status
September 1997

Health Region	Employed in Nursing ¹				Employed in Other Field	Not Employed	Unknown	Total
	Full-Time	Part-Time	Seasonal/ Casual	Subtotal				
1 East Kootenay	77	40	45	162	14	11	1	188
2 West Kootenay - Boundary	108	44	48	200	6	13	0	219
3 North Okanagan	94	39	49	182	17	12	1	212
4 South Okanagan - Similkameen	225	116	114	455	22	40	0	517
5 Thompson	110	26	55	191	14	18	3	226
6 Fraser Valley	92	39	64	195	18	22	1	236
7 South Fraser Valley	132	97	78	307	29	54	2	392
8 Simon Fraser	128	79	61	268	23	18	4	313
9 Coast Garibaldi	27	21	33	81	6	7	0	94
10 Central Vancouver Island	185	81	111	377	31	48	0	456
11 Upper Island/Central Coast	74	46	42	162	19	14	0	195
12 Cariboo	31	24	34	89	7	14	0	110
13 North West	44	22	24	90	11	11	0	112
14 Peace Liard	37	14	26	77	3	8	0	88
15 Northern Interior	66	39	43	148	18	11	1	178
16 Vancouver	415	153	193	761	24	33	6	824
17 Burnaby	39	11	21	71	7	11	2	91
18 North Shore	67	35	22	124	17	9	1	151
19 Richmond	50	18	22	90	7	8	0	105
20 Capital	254	113	88	455	51	38	1	545
TOTAL	2,255	1,057	1,173	4,485	344	400	23	5,252

¹ There are no LPN's employed in nursing with unknown employment status.

Table 4
Licensed Practical Nurses Employed in Nursing¹ in British Columbia
by Health Region by Place of Employment
September 1997

Health Region	Institutional Care						Visiting Care Agency/ Home Care	Community Health Agency	Physician's					Other	Unknown	Total
	Acute Care General Hospital	Activation/ Rehab. Hospital	Extended Care Hospital	Other LTC Facility/ Nursing Home	Psychiatric Hospital	Subtotal			Office/ Family Practice Unit	Educational Institution	Business/ Industry					
1 East Kootenay	99	0	17	24	0	140	4	2	4	1	0	6	5	162		
2 West Kootenay - Boundary	104	3	47	24	0	178	5	2	7	0	0	6	2	200		
3 North Okanagan	104	2	37	21	0	164	7	0	3	0	0	2	6	182		
4 South Okanagan - Similkameen	222	6	126	56	0	410	22	1	8	2	0	4	8	455		
5 Thompson	131	1	18	14	0	164	7	5	1	0	0	5	9	191		
6 Fraser Valley	123	0	11	34	0	168	8	4	8	0	0	2	5	195		
7 South Fraser Valley	197	5	11	53	1	267	16	4	1	3	0	10	6	307		
8 Simon Fraser	167	9	13	20	9	218	10	9	6	5	0	9	11	268		
9 Coast Garibaldi	48	0	8	15	0	71	1	0	3	1	0	3	2	81		
10 Central Vancouver Island	160	2	84	65	1	312	34	3	5	3	2	11	7	377		
11 Upper Island/Central Coast	97	1	16	16	0	130	10	3	6	4	1	2	6	162		
12 Cariboo	56	0	20	4	0	80	1	0	0	0	2	2	4	89		
13 North West	58	0	7	11	0	76	1	2	4	1	0	3	3	90		
14 Peace Liard	47	0	8	8	0	63	0	1	9	2	0	0	2	77		
15 Northern Interior	99	8	3	19	0	129	2	0	7	0	0	4	6	148		
16 Vancouver	262	69	107	140	1	579	51	50	9	11	2	27	32	761		
17 Burnaby	11	0	4	39	0	54	7	2	2	0	0	3	3	71		
18 North Shore	79	1	5	21	0	106	6	0	2	3	0	1	6	124		
19 Richmond	72	0	1	8	0	81	0	0	3	0	0	2	4	90		
20 Capital	181	46	108	40	3	378	22	12	6	3	1	18	15	455		
TOTAL	2,317	153	651	632	15	3,768	214	100	94	39	8	120	142	4,485		

¹ Excludes 344 LPN's who are employed in other fields, 400 who are not employed and 23 who did not indicate their employment status.

Table 5
Licensed Practical Nurses Employed in Nursing¹ in British Columbia
by Health Region by Field of Practice
September 1997

Health Region	Medical/ Surgical General	Medical/ Surgical Specialties	Maternal/ Newborn	Psychiatric	Paediatric	Geriatric	Generalized Practice	Teaching	Admin- istration	Rehab- ilitation	Other	Unknown	Total
1 East Kootenay	50	5	1	1	0	47	28	1	2	0	9	18	162
2 West Kootenay - Boundary	64	4	1	4	0	69	25	0	0	2	10	21	200
3 North Okanagan	59	0	1	1	0	75	15	0	1	3	0	27	182
4 South Okanagan - Similkameen	155	11	4	3	4	176	26	1	1	15	21	38	455
5 Thompson	78	4	3	1	7	31	24	0	1	7	16	19	191
6 Fraser Valley	91	2	1	9	2	47	10	0	3	0	15	15	195
7 South Fraser Valley	152	10	0	4	7	72	9	2	2	7	18	24	307
8 Simon Fraser	105	14	3	7	3	51	13	1	1	11	31	28	268
9 Coast Garibaldi	32	1	0	2	0	24	10	1	0	0	4	7	81
10 Central Vancouver Island	96	3	2	4	4	161	30	1	1	15	26	34	377
11 Upper Island/Central Coast	69	2	0	1	1	42	17	2	1	1	13	13	162
12 Cariboo	28	9	1	0	0	23	11	0	0	1	6	10	89
13 North West	43	2	1	0	0	22	6	1	1	2	4	8	90
14 Peace Liard	36	2	3	0	1	13	10	1	0	0	7	4	77
15 Northern Interior	53	10	6	2	3	22	17	0	1	14	11	9	148
16 Vancouver	162	44	14	11	25	236	23	7	10	67	86	76	761
17 Burnaby	5	1	0	2	0	39	5	0	1	3	9	6	71
18 North Shore	49	15	3	1	0	22	13	2	2	3	1	13	124
19 Richmond	60	4	0	1	0	13	2	0	0	0	3	7	90
20 Capital	96	30	1	11	1	184	9	5	3	52	34	29	455
TOTAL	1,483	173	45	65	58	1,369	303	25	31	203	324	406	4,485

¹ Excludes 344 LPN's who are employed in other fields, 400 who are not employed and 23 who did not indicate their employment status.

Table 6
Licensed Practical Nurses Employed in Nursing¹ in British Columbia
by Health Region by Job Title
September 1997

Health Region	LPN	LTC Aide/ Nurses Aide	Orderly	Other	Unknown	Total
1 East Kootenay	114	27	0	12	9	162
2 West Kootenay - Boundary	118	48	0	20	14	200
3 North Okanagan	128	25	3	9	17	182
4 South Okanagan - Similkameen	363	36	5	24	27	455
5 Thompson	136	25	3	16	11	191
6 Fraser Valley	126	26	0	29	14	195
7 South Fraser Valley	246	23	0	22	16	307
8 Simon Fraser	178	20	5	49	16	268
9 Coast Garibaldi	62	8	0	6	5	81
10 Central Vancouver Island	274	44	0	34	25	377
11 Upper Island/Central Coast	114	17	0	22	9	162
12 Cariboo	64	9	0	8	8	89
13 North West	60	8	0	17	5	90
14 Peace Liard	59	8	0	7	3	77
15 Northern Interior	109	10	1	21	7	148
16 Vancouver	590	47	8	72	44	761
17 Burnaby	46	9	0	12	4	71
18 North Shore	96	14	0	10	4	124
19 Richmond	69	6	1	8	6	90
20 Capital	317	45	6	63	24	455
TOTAL	3,269	455	32	461	268	4,485

¹ Excludes 344 LPN's who are employed in other fields, 400 who are not employed and 23 who did not indicate their employment status.

Table 7
Analysis of Change in the Number of Licensed Practical Nurses in British Columbia
by Health Region
September 1995 to September 1997

Health Region	September 1995	New Registrants ¹ by Place of Graduation					Reactivation ²	Attrition ³	Net Intra- provincial Migration	September 1997
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	178	20	4	0	0	24	9	23	0	188
2 West Kootenay - Boundary	244	1	1	0	0	2	8	42	7	219
3 North Okanagan	229	9	1	0	0	10	10	40	3	212
4 South Okanagan - Similkameen	532	22	11	0	0	33	23	81	10	517
5 Thompson	247	8	3	1	0	12	9	36	-6	226
6 Fraser Valley	256	11	8	0	1	20	10	55	5	236
7 South Fraser Valley	458	27	11	3	0	41	19	112	-14	392
8 Simon Fraser	357	14	6	3	0	23	12	71	-8	313
9 Coast Garibaldi	108	7	3	0	0	10	5	28	-1	94
10 Central Vancouver Island	481	28	8	0	0	36	25	99	13	456
11 Upper Island/Central Coast	219	3	4	0	0	7	11	41	-1	195
12 Cariboo	103	11	1	0	0	12	5	18	8	110
13 North West	134	6	5	1	0	12	7	33	-8	112
14 Peace Liard	108	4	3	0	0	7	1	26	-2	88
15 Northern Interior	157	22	6	2	0	30	13	32	10	178
16 Vancouver	878	62	13	11	3	89	25	185	17	824
17 Burnaby	122	8	3	3	0	14	4	25	-24	91
18 North Shore	145	14	3	0	0	17	10	31	10	151
19 Richmond	128	2	1	2	0	5	2	21	-9	105
20 Capital	589	28	19	1	0	48	18	100	-10	545
TOTAL	5,673	307	114	27	4	452	226	1,099	0	5,252

¹ LPN's who reported B.C. addresses and were licensed in September 1997 and whose date of initial registration was after September 1995.

² LPN's who reported B.C. addresses and were licensed in September 1997 but not in September 1995 and who were registered for the first time before September 1995.

³ LPN's who reported B.C. addresses and were licensed in September 1995 but not in September 1997.

REGISTERED NURSES

Definition: A registered nurse

...performs for others health care services which require the application of professional nursing knowledge and skills. The practice of nursing includes:

- (a) promoting, maintaining or restoring the health of the general public;
- (b) teaching nursing theory or practice;
- (c) counselling persons in respect of health care;
- (d) coordinating health care services;
- (e) engaging in administration, supervision, education, consultation, teaching or research for any of the foregoing.¹

Governing Statute: Nurses (Registered) Act, R.S.B.C. 1996, Chapter 335; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Registered Nurses Association of British Columbia (RNABC). In order to practise as a Registered Nurse in British Columbia, it is necessary to be a member of the RNABC. Members of the RNABC who are registered nurses have use of the title *nurse*, and exclusive use of the titles *Registered Nurse* and *R.N.*

Dates of Record: June 1995 and June 1997.

Source of Data: Registered Nurses Association of British Columbia (RNABC).

Preparation and Updating:

The tables were prepared from registration data maintained by the RNABC and include registered nurses (RN's) who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the membership status is *practising*, when employment in nursing is reported, and when employment address is available. In 1995 and 1997, employment address was available for 88% and 89% of practising RN's employed in nursing, respectively. Home address is used for the remainder, as well as for practising RN's who are not employed in nursing, and for RN's with non-practising membership status.

There was a small number of RN's dually registered with the Registered Psychiatric Nurses Association of British Columbia (see Chapter 25 on RPN's). Dual registrants are included in both RN and RPN tables.

¹ Adapted from the Rules under the *Nurses (Registered) Act*, R.S.B.C. 1996, Chapter 335, Part 2, s.2.1. (Information provided by the Registered Nurses Association of British Columbia.)

Definition of Terms:

1. Membership Status

Tables 1a and 1b report number and number per 10,000 population of RN's by their RNABC membership status. Table 1c shows the average annual rates of change in these numbers. An RN may hold a *practising* or *non-practising* membership in the RNABC. A practising RN may or may not be employed in nursing. A non-practising RN who commences employment in nursing in British Columbia must convert to practising membership.

2. Age and Sex

Age and sex information for practising and non-practising RN's, derived from the RNABC registration database, is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 reports the number of practising RN's according to their employment status as indicated on the RNABC registration form. The categories shown in the table for employment status are created from the information on the registration form, first by dividing practising RN's into those who are employed in nursing (those RN's with an employer code on the registration form) and those who are not employed in nursing. Practising RN's who *are employed in nursing* are then separated into those employed on a casual/seasonal basis, those employed on a regular basis, and those who supplied no further information. The practising RN's employed on a regular basis are further separated into those employed full-time and those employed part-time. Practising RN's who are *not employed in nursing* (those RN's with no employer code on the registration form) are separated in the table into those who indicated on the registration form either "employed - not in nursing" or "not employed", or gave no further information on their employment status.

Thus, the categories shown in the table are:

- | | |
|---|---|
| (a) Employed in nursing;
(i) Regular Full-Time
(ii) Regular Part-Time
(iii) Seasonal/Casual
(iv) Status unknown | (b) Not employed in nursing;
(i) Employed in other field
(ii) Not employed
(iii) Status unknown. |
|---|---|

4. Employment Status by Age and Sex

Tables 4a and 4b are new additions to *ROLLCALL*. They provide an age and sex breakdown for some of the employment status categories shown in Table 3. Table 4a shows age and sex for practising RN's *employed in nursing*, while Table 4b shows age and sex for practising RN's *not employed in nursing*. Table 4a includes an age and sex breakdown for "regular full-time", "regular part-time" and "casual/seasonal", but does not include an age and sex breakdown for "employed in nursing - status unknown" because the numbers within this last group are quite small. Table 4b provides an age and sex breakdown for "not employed in nursing - not employed" and "not employed in nursing - status unknown" combined, but does not include an age and sex breakdown for "not employed in nursing - employed in other field" as the numbers within this last group are quite small. Age information in the

tables is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

5. Type of Employer

Type of employer is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 5 shows the number of practising RN's employed in nursing by type of employer. The RNABC made changes to this category on its registration renewal form in 1996. The categories that were significantly altered are listed here as they appeared in 1995 and 1997:

1995	1997
General Hospital	Hospital (gen, mat, paed, psych)
Psychiatric Hospital/Mental Health Centre	Mental Health Centre

In addition a number of categories underwent minor name changes; these are all footnoted in the table where they appear. The categories used on the 1997 registration renewal form were:

- | | |
|--|--|
| (a) Hospital; | (i) Physician's Office/Family Practice Unit; |
| (b) Rehabilitation/Convalescent Centre; | (j) Educational Institution; |
| (c) Extended Care; | (k) Self-employed/Private Practice; |
| (d) Long Term Care/Nursing Home; | (l) Private Nursing Agency/Private Duty; |
| (e) Mental Health Centre; | (m) Association/Government; |
| (f) Home Care Agency; | (n) Nursing Stations/Outpost/Clinic; |
| (g) Community Health Agency/Health Centre; | (o) Other; |
| (h) Business/Industry/Occupational Health; | (p) Unknown. |

6. Primary Area of Responsibility

Primary area of responsibility is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 6 shows the number of practising RN's employed in nursing by primary area of responsibility. Changes on the registration renewal form which occurred in 1996 include removing Post-Anesthetic Recovery Room from the "Critical Care" category to create a new "Post-Anesthetic Recovery Room" category, and adding the categories "Oncology" and "Rehabilitation". In addition a couple of categories underwent minor name changes; these are both footnoted in the table where they appear. The categories used on the 1997 registration form were:

- | | |
|-----------------------------------|---------------------------------|
| (a) Direct Patient Care; | |
| (i) Medical/Surgical | (x) Paediatrics |
| (ii) Critical Care (e.g., ICU) | (xi) Rehabilitation |
| (iii) Oncology | (xii) Geriatrics/Long Term Care |
| (iv) Operating Room | (xiii) Occupational Health |
| (v) Post-Anesthetic Recovery Room | (xiv) Several Clinical Areas |
| (vi) Ambulatory Care | (xv) Community Health |
| (vii) Emergency Care | (xvi) Home Care |
| (viii) Maternal/Newborn | (xvii) Other Patient Care |
| (ix) Psychiatric/Mental Health | |

- (b) Administration;
 - (i) Nursing Education Administration
 - (ii) Nursing Services Administration
 - (iii) Other Administration
- (c) Education;
 - (i) Teaching - Students
 - (ii) Teaching - Employees
 - (iii) Teaching - Patients/Clients
 - (iv) Teaching - Other Education
- (d) Research;
- (e) Unknown.

Some categories represent groupings of primary area of responsibility when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

7. Employment Position

Employment position is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 7 shows the number of practising RN's employed in nursing by employment position. Changes on the registration renewal form which occurred in 1996 include minor name changes to a couple of categories; these are footnoted in the table where they appear.

The categories used on the 1997 registration form were:

- | | |
|---|---|
| (a) Chief Nursing Officer/Director; | (g) Office/Occupational/Industrial Nurse; |
| (b) Assistant/Associate Director; | (h) Instructor/Professor; |
| (c) Supervisor/Coordinator; | (i) Consultant/Counsellor; |
| (d) Clinical Nurse Specialist; | (j) Researcher; |
| (e) Head Nurse/Unit Manager; | (k) Other; |
| (f) Staff Nurse/Home Care/Community Nurse | (l) Unknown. |

8. Analysis of Change

Table 8 illustrates the sources of change which affected the supply of RN's from June 1995 to June 1997.

New registrants include RN's who were registered as of June 1997 and who registered with the RNABC for the first time subsequent to June 1995. New registrants are recorded according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent RN's who were not registered in June 1995 but were registered members in British Columbia in June 1997, and whose date of initial registration was before June 1995. Also included as reactivations are RN's who reported out-of-province addresses in June 1995, but who reported British Columbia addresses in June 1997.

Attrition describes RN's who were included in the June 1995 registered nurse supply, but who, because of death, retirement, out-of-province relocation, or non-renewal of registration, were not included in the June 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of RN's among different Health Regions. The net migration total is therefore zero.

Table 1a
Registered Nurses in British Columbia
by Health Region by Membership Status
June 1995¹ and June 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	470	482	37	43	507	525
2 West Kootenay - Boundary	663	638	75	79	738	717
3 North Okanagan	714	710	90	102	804	812
4 South Okanagan - Similkameen	1,571	1,594	164	155	1,735	1,749
5 Thompson	961	962	100	101	1,061	1,063
6 Fraser Valley	1,273	1,288	134	111	1,407	1,399
7 South Fraser Valley	2,356	2,493	324	349	2,680	2,842
8 Simon Fraser	2,493	2,492	173	221	2,666	2,713
9 Coast Garibaldi	330	345	55	53	385	398
10 Central Vancouver Island	1,258	1,310	174	169	1,432	1,479
11 Upper Island/Central Coast	694	711	95	89	789	800
12 Cariboo	349	370	44	52	393	422
13 North West	531	528	44	50	575	578
14 Peace Liard	328	326	27	22	355	348
15 Northern Interior	882	838	63	77	945	915
16 Vancouver	7,174	7,159	330	326	7,504	7,485
17 Burnaby	1,016	986	106	99	1,122	1,085
18 North Shore	1,119	1,084	171	172	1,290	1,256
19 Richmond	626	601	97	112	723	713
20 Capital	3,489	3,455	352	345	3,841	3,800
TOTAL	28,297	28,372	2,655	2,727	30,952	31,099

¹ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Registered Nurses in British Columbia
per 10,000 Population by Health Region by Membership Status
June 1995 and June 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	61.30	60.55	4.83	5.40	66.13	65.95
2 West Kootenay - Boundary	83.27	78.35	9.42	9.70	92.68	88.05
3 North Okanagan	64.66	61.40	8.15	8.82	72.82	70.22
4 South Okanagan - Similkameen	73.01	71.12	7.62	6.92	80.63	78.04
5 Thompson	76.62	72.90	7.97	7.65	84.59	80.56
6 Fraser Valley	57.12	55.08	6.01	4.75	63.14	59.83
7 South Fraser Valley	45.20	45.31	6.22	6.34	51.41	51.65
8 Simon Fraser	86.15	81.31	5.98	7.21	92.13	88.52
9 Coast Garibaldi	47.16	45.84	7.86	7.04	55.02	52.88
10 Central Vancouver Island	55.35	55.16	7.66	7.12	63.01	62.28
11 Upper Island/Central Coast	60.39	59.21	8.27	7.41	68.66	66.62
12 Cariboo	49.78	49.48	6.28	6.95	56.05	56.43
13 North West	60.55	58.18	5.02	5.51	65.56	63.69
14 Peace Liard	52.59	50.03	4.33	3.38	56.92	53.41
15 Northern Interior	70.50	64.34	5.04	5.91	75.54	70.26
16 Vancouver	136.05	129.85	6.26	5.91	142.31	135.77
17 Burnaby	56.01	52.61	5.84	5.28	61.86	57.89
18 North Shore	64.80	61.35	9.90	9.73	74.70	71.08
19 Richmond	42.30	38.27	6.55	7.13	48.86	45.40
20 Capital	106.91	104.06	10.79	10.39	117.70	114.45
TOTAL	75.38	72.35	7.07	6.95	82.45	79.30

Table 1c
Average Annual Rate of Change¹: Registered Nurses in British Columbia
by Health Region by Membership Status
June 1995 to June 1997

Health Region	Practising		Non-Practising		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	1.27	-0.62	7.80	5.79	1.76	-0.14
2 West Kootenay - Boundary	-1.90	-3.00	2.63	1.49	-1.43	-2.53
3 North Okanagan	-0.28	-2.56	6.46	4.03	0.50	-1.80
4 South Okanagan - Similkameen	0.73	-1.30	-2.78	-4.74	0.40	-1.62
5 Thompson	0.05	-2.46	0.50	-2.02	0.09	-2.42
6 Fraser Valley	0.59	-1.80	-8.99	-11.15	-0.28	-2.65
7 South Fraser Valley	2.87	0.12	3.79	1.02	2.98	0.23
8 Simon Fraser	-0.02	-2.85	13.02	9.83	0.88	-1.98
9 Coast Garibaldi	2.25	-1.41	-1.84	-5.35	1.67	-1.97
10 Central Vancouver Island	2.05	-0.17	-1.45	-3.59	1.63	-0.58
11 Upper Island/Central Coast	1.22	-0.98	-3.21	-5.31	0.69	-1.49
12 Cariboo	2.96	-0.30	8.71	5.27	3.62	0.34
13 North West	-0.28	-1.97	6.60	4.79	0.26	-1.44
14 Peace Liard	-0.31	-2.46	-9.73	-11.68	-0.99	-3.13
15 Northern Interior	-2.53	-4.47	10.55	8.35	-1.60	-3.56
16 Vancouver	-0.10	-2.30	-0.61	-2.80	-0.13	-2.33
17 Burnaby	-1.49	-3.09	-3.36	-4.93	-1.66	-3.26
18 North Shore	-1.58	-2.70	0.29	-0.85	-1.33	-2.45
19 Richmond	-2.02	-4.89	7.45	4.31	-0.69	-3.60
20 Capital	-0.49	-1.34	-1.00	-1.85	-0.54	-1.39
TOTAL	0.13	-2.03	1.35	-0.84	0.24	-1.93

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

Table 2
Registered Nurses in British Columbia
by Health Region by Age and Sex¹
June 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	9	3	88	5	160	4	176	0	74	0	6	0	0	12	513	525
2 West Kootenay - Boundary	1	8	6	84	14	250	8	253	0	81	0	11	0	1	29	688	717
3 North Okanagan	0	10	2	95	4	289	4	283	1	117	0	7	0	0	11	801	812
4 South Okanagan - Similkameen	1	19	14	252	22	571	12	567	5	265	0	20	0	1	54	1,695	1,749
5 Thompson	2	29	11	215	9	365	7	307	2	107	0	8	0	1	31	1,032	1,063
6 Fraser Valley	2	30	7	267	17	394	12	444	9	195	0	22	0	0	47	1,352	1,399
7 South Fraser Valley	2	74	18	436	23	849	28	952	8	412	0	40	0	0	79	2,763	2,842
8 Simon Fraser	1	52	19	491	25	906	52	805	14	324	1	21	0	2	112	2,601	2,713
9 Coast Garibaldi	0	7	3	81	1	131	3	109	1	54	0	8	0	0	8	390	398
10 Central Vancouver Island	0	15	4	191	17	463	11	522	5	231	0	19	0	1	37	1,442	1,479
11 Upper Island/Central Coast	0	4	8	116	10	289	2	249	1	114	0	7	0	0	21	779	800
12 Cariboo	0	9	1	75	1	129	2	145	1	55	0	4	0	0	5	417	422
13 North West	1	23	11	130	8	179	6	162	2	47	0	8	0	1	28	550	578
14 Peace Liard	0	14	2	89	5	115	0	92	0	30	0	1	0	0	7	341	348
15 Northern Interior	2	31	8	229	13	282	6	255	0	84	0	5	0	0	29	886	915
16 Vancouver	6	155	88	1,909	131	2,323	93	1,917	27	765	1	69	0	1	346	7,139	7,485
17 Burnaby	0	30	9	209	7	337	12	323	3	138	0	16	0	1	31	1,054	1,085
18 North Shore	0	21	7	235	9	343	2	374	1	243	0	20	0	1	19	1,237	1,256
19 Richmond	0	15	10	126	9	202	5	239	0	100	0	7	0	0	24	689	713
20 Capital	1	23	27	512	73	1,220	52	1,278	11	541	0	59	1	2	165	3,635	3,800
TOTAL	19	578	258	5,830	403	9,797	321	9,452	91	3,977	2	358	1	12	1,095	30,004	31,099

¹ There are no RN's with missing sex information.

Table 3
Practising Registered Nurses¹ in British Columbia
by Health Region by Employment Status
June 1997

Health Region	Employed in Nursing					Not Employed in Nursing			Total
	Regular		Seasonal/ Casual	Unknown	Subtotal	Employed in Other Field	Not Employed	Status Unknown	
	Full-Time	Part-Time							
1 East Kootenay	176	140	152	2	470	1	0	11	482
2 West Kootenay - Boundary	267	163	189	3	622	1	1	14	638
3 North Okanagan	268	209	211	5	693	0	2	15	710
4 South Okanagan - Similkameen	695	440	409	7	1,551	2	1	40	1,594
5 Thompson	416	239	268	2	925	1	1	35	962
6 Fraser Valley	604	362	286	9	1,261	1	1	25	1,288
7 South Fraser Valley	1,070	710	591	8	2,379	1	4	109	2,493
8 Simon Fraser	1,194	749	478	15	2,436	1	2	53	2,492
9 Coast Garibaldi	132	110	89	4	335	0	0	10	345
10 Central Vancouver Island	557	363	343	11	1,274	1	5	30	1,310
11 Upper Island/Central Coast	268	199	219	4	690	0	0	21	711
12 Cariboo	133	115	111	1	360	0	1	9	370
13 North West	248	122	141	2	513	0	2	13	528
14 Peace Liard	123	101	85	2	311	0	1	14	326
15 Northern Interior	346	179	274	2	801	0	3	34	838
16 Vancouver	4,013	1,468	1,539	33	7,053	2	3	101	7,159
17 Burnaby	550	184	209	2	945	2	1	38	986
18 North Shore	494	283	268	5	1,050	2	0	32	1,084
19 Richmond	260	159	165	0	584	0	1	16	601
20 Capital	1,570	907	893	19	3,389	0	2	64	3,455
TOTAL	13,384	7,202	6,920	136	27,642	15	31	684	28,372

¹ Excludes 2,727 Non-Practising RN's.

Table 4a
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Employment Status³ by Age and Sex
June 1997

Health Region	Employed in Nursing - Regular Full-Time																Total
	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	18	1	50	1	83	0	23	0	0	0	0	2	174	176
2 West Kootenay - Boundary	0	0	0	19	4	82	6	112	0	43	0	0	0	1	10	257	267
3 North Okanagan	0	0	0	18	1	75	3	129	0	42	0	0	0	0	4	264	268
4 South Okanagan - Similkameen	0	1	1	54	12	216	6	282	3	118	0	1	0	1	22	673	695
5 Thompson	0	1	5	67	4	136	5	155	0	42	0	1	0	0	14	402	416
6 Fraser Valley	0	0	3	99	11	150	9	227	8	94	0	3	0	0	31	573	604
7 South Fraser Valley	0	4	8	129	15	263	22	451	5	169	0	4	0	0	50	1,020	1,070
8 Simon Fraser	0	2	7	177	17	344	48	426	13	159	0	1	0	0	85	1,109	1,194
9 Coast Garibaldi	0	0	1	24	1	37	1	46	0	22	0	0	0	0	3	129	132
10 Central Vancouver Island	0	0	1	46	11	163	7	246	1	82	0	0	0	0	20	537	557
11 Upper Island/Central Coast	0	1	3	19	8	83	1	100	0	53	0	0	0	0	12	256	268
12 Cariboo	0	0	0	13	0	39	2	61	0	18	0	0	0	0	2	131	133
13 North West	0	4	6	49	7	65	4	82	1	27	0	3	0	0	18	230	248
14 Peace Liard	0	0	1	30	1	38	0	39	0	13	0	1	0	0	2	121	123
15 Northern Interior	0	0	2	61	8	111	4	127	0	33	0	0	0	0	14	332	346
16 Vancouver	1	14	47	940	82	1,212	78	1,162	20	442	0	14	0	1	228	3,785	4,013
17 Burnaby	0	2	2	94	3	162	8	188	3	85	0	2	0	1	16	534	550
18 North Shore	0	2	3	97	6	130	2	157	1	93	0	3	0	0	12	482	494
19 Richmond	0	0	6	47	5	50	2	105	0	45	0	0	0	0	13	247	260
20 Capital	0	1	6	119	39	452	41	657	8	238	0	8	0	1	94	1,476	1,570
TOTAL	1	32	102	2,120	236	3,858	250	4,835	63	1,841	0	41	0	5	652	12,732	13,384

... continued

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Excludes 136 RN's who are known to be employed in nursing but did not indicate whether they were regular full-time, regular part-time or seasonal/casual.

Table 4a (continued)
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Employment Status³ by Age and Sex
June 1997

Health Region	Employed in Nursing - Regular Part-Time																Total
	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	16	3	44	3	51	0	22	0	1	0	0	6	134	140
2 West Kootenay - Boundary	0	1	0	9	4	59	0	74	0	16	0	0	0	0	4	159	163
3 North Okanagan	0	0	1	15	2	93	1	68	1	27	0	1	0	0	5	204	209
4 South Okanagan - Similkameen	0	2	3	64	2	170	1	144	1	50	0	3	0	0	7	433	440
5 Thompson	0	1	2	36	0	96	1	73	0	28	0	2	0	0	3	236	239
6 Fraser Valley	0	4	0	54	2	127	1	129	0	42	0	3	0	0	3	359	362
7 South Fraser Valley	0	2	4	81	3	246	2	271	1	94	0	6	0	0	10	700	710
8 Simon Fraser	0	0	1	122	1	317	0	243	0	60	0	4	0	1	2	747	749
9 Coast Garibaldi	0	0	1	18	0	48	0	31	0	12	0	0	0	0	1	109	110
10 Central Vancouver Island	0	0	0	44	1	123	1	137	1	54	0	2	0	0	3	360	363
11 Upper Island/Central Coast	0	0	1	23	0	90	1	66	1	17	0	0	0	0	3	196	199
12 Cariboo	0	2	1	13	1	31	0	50	0	17	0	0	0	0	2	113	115
13 North West	0	2	2	24	0	50	0	36	0	7	0	1	0	0	2	120	122
14 Peace Liard	0	3	0	9	2	47	0	31	0	9	0	0	0	0	2	99	101
15 Northern Interior	0	2	1	38	2	64	1	58	0	13	0	0	0	0	4	175	179
16 Vancouver	0	10	11	336	20	526	5	402	2	152	0	4	0	0	38	1,430	1,468
17 Burnaby	0	1	1	26	0	83	0	53	0	19	0	1	0	0	1	183	184
18 North Shore	0	1	0	32	1	71	0	109	0	64	0	4	0	1	1	282	283
19 Richmond	0	1	0	20	0	58	1	58	0	21	0	0	0	0	1	158	159
20 Capital	0	1	2	105	12	335	5	305	1	132	0	8	0	1	20	887	907
TOTAL	0	33	31	1,085	56	2,678	23	2,389	8	856	0	40	0	3	118	7,084	7,202

... continued

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Excludes 136 RN's who are known to be employed in nursing but did not indicate whether they were regular full-time, regular part-time or seasonal/casual.

Table 4a (continued)
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Employment Status³ by Age and Sex
June 1997

Health Region	Employed in Nursing - Seasonal/Casual																Total
	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	8	1	47	1	50	0	31	0	13	0	1	0	0	2	150	152
2 West Kootenay - Boundary	1	4	2	38	4	77	1	51	0	9	0	2	0	0	8	181	189
3 North Okanagan	0	7	1	46	1	83	0	57	0	16	0	0	0	0	2	209	211
4 South Okanagan - Similkameen	0	12	9	112	7	147	2	87	1	31	0	1	0	0	19	390	409
5 Thompson	2	13	3	87	3	106	0	41	0	11	0	1	0	1	8	260	268
6 Fraser Valley	2	24	4	88	3	88	0	49	0	24	0	4	0	0	9	277	286
7 South Fraser Valley	0	43	4	140	3	211	2	125	0	58	0	5	0	0	9	582	591
8 Simon Fraser	0	28	10	144	4	167	3	81	1	38	0	2	0	0	18	460	478
9 Coast Garibaldi	0	3	1	31	0	34	1	16	0	3	0	0	0	0	2	87	89
10 Central Vancouver Island	0	14	3	77	5	124	2	79	1	38	0	0	0	0	11	332	343
11 Upper Island/Central Coast	0	2	2	56	1	93	0	45	0	20	0	0	0	0	3	216	219
12 Cariboo	0	6	0	41	0	39	0	21	0	3	0	1	0	0	0	111	111
13 North West	1	16	3	42	0	43	2	26	0	6	0	1	0	1	6	135	141
14 Peace Liard	0	9	1	37	2	18	0	13	0	5	0	0	0	0	3	82	85
15 Northern Interior	2	20	4	99	2	81	0	51	0	15	0	0	0	0	8	266	274
16 Vancouver	2	111	27	552	23	445	5	266	1	93	0	14	0	0	58	1,481	1,539
17 Burnaby	0	14	4	68	1	54	3	44	0	18	0	3	0	0	8	201	209
18 North Shore	0	15	3	81	1	79	0	56	0	32	0	1	0	0	4	264	268
19 Richmond	0	11	3	38	4	59	1	41	0	7	0	1	0	0	8	157	165
20 Capital	1	17	16	244	20	323	2	202	0	63	0	4	1	0	40	853	893
TOTAL	11	377	101	2,068	85	2,321	24	1,382	4	503	0	41	1	2	226	6,694	6,920

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Excludes 136 RN's who are known to be employed in nursing but did not indicate whether they were regular full-time, regular part-time or seasonal/casual.

Table 4b
Practising Registered Nurses Not Employed in Nursing^{1,2} in British Columbia
by Health Region by Employment Status³ by Age and Sex
June 1997

Health Region	Not Employed in Nursing - Not Employed and Status Unknown														Total
	< 25		25-34		35-44		45-54		55-64		65 +		Subtotal		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	1	1	2	0	1	0	4	0	2	0	0	1	10	11
2 West Kootenay - Boundary	0	1	0	7	1	4	0	1	0	1	0	0	1	14	15
3 North Okanagan	0	3	0	3	0	8	0	2	0	1	0	0	0	17	17
4 South Okanagan - Similkameen	1	3	1	7	1	11	1	14	0	2	0	0	4	37	41
5 Thompson	0	11	1	7	1	7	0	8	0	0	0	1	2	34	36
6 Fraser Valley	0	1	0	9	0	9	1	4	0	2	0	0	1	25	26
7 South Fraser Valley	2	22	2	31	1	28	0	24	0	3	0	0	5	108	113
8 Simon Fraser	1	16	0	14	0	18	0	5	0	1	0	0	1	54	55
9 Coast Garibaldi	0	3	0	2	0	1	1	0	0	2	0	1	1	9	10
10 Central Vancouver Island	0	1	0	5	0	16	0	11	0	1	0	1	0	35	35
11 Upper Island/Central Coast	0	1	1	5	0	3	0	8	0	3	0	0	1	20	21
12 Cariboo	0	0	0	4	0	3	0	2	0	1	0	0	0	10	10
13 North West	0	1	0	5	1	5	0	3	0	0	0	0	1	14	15
14 Peace Liard	0	1	0	8	0	4	0	1	0	1	0	0	0	15	15
15 Northern Interior	0	9	1	10	0	9	0	7	0	1	0	0	1	36	37
16 Vancouver	3	18	1	30	3	28	1	13	0	6	0	1	8	96	104
17 Burnaby	0	13	1	8	1	9	0	6	0	1	0	0	2	37	39
18 North Shore	0	3	0	9	0	12	0	6	0	2	0	0	0	32	32
19 Richmond	0	1	0	7	0	3	0	5	0	1	0	0	0	17	17
20 Capital	0	3	1	14	0	18	2	18	0	8	0	2	3	63	66
TOTAL	7	112	10	187	9	197	6	142	0	39	0	6	32	683	715

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 27,642 RN's employed in nursing.

³ Excludes 15 RN's who are employed in other fields.

Table 5
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Type of Employer
June 1997

Health Region	Hospital ³	Rehabilitation/ Convalescent Centre ⁴	Extended Care	Long Term Care/ Nursing Home	Mental Health Centre ⁵	Home Care Agency ⁶	Community Health Agency/ Health Centre ⁷	Business/ Industry/ Occupational Health	Physician's Office/ Family Practice Unit
1 East Kootenay	273	0	20	70	3	11	53	2	8
2 West Kootenay - Boundary	380	0	41	67	4	15	59	1	17
3 North Okanagan	418	2	37	75	10	20	67	1	14
4 South Okanagan - Similkameen	927	1	101	180	19	37	121	4	59
5 Thompson	589	0	49	37	15	16	112	4	14
6 Fraser Valley	750	1	89	171	15	20	90	2	21
7 South Fraser Valley	1,398	6	176	231	23	41	212	27	59
8 Simon Fraser	1,790	5	129	130	32	18	100	20	35
9 Coast Garibaldi	172	0	24	30	4	8	55	1	10
10 Central Vancouver Island	735	2	54	142	20	31	136	1	41
11 Upper Island/Central Coast	409	0	24	44	2	18	86	2	29
12 Cariboo	228	1	21	27	6	10	36	0	8
13 North West	331	0	11	20	5	7	74	6	18
14 Peace Liard	173	1	13	37	1	5	48	3	11
15 Northern Interior	568	6	13	38	4	7	67	1	13
16 Vancouver	4,815	172	233	444	66	157	433	40	52
17 Burnaby	483	0	69	112	16	26	93	3	19
18 North Shore	620	7	60	109	5	40	78	14	38
19 Richmond	358	0	17	53	3	21	73	9	18
20 Capital	1,995	26	232	304	42	87	304	12	64
TOTAL	17,412	230	1,413	2,321	295	595	2,297	153	548

... continued

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Please note the change in this employer category from "General Hospital" in 1995 to "Hospital" in 1997. The new category includes general, maternity, paediatric and psychiatric facilities.

⁴ Please note the name change in this employer category from "Rehabilitation" in 1995 to "Rehabilitation/Convalescent Centre" in 1997.

⁵ Please note the change in this employer category from "Psychiatric Hospital/Mental Health Centre" in 1995 to "Mental Health Centre" in 1997. Psychiatric Hospital is now included in the employer category "Hospital".

⁶ Please note the name change in this employer category from "Home Care" in 1995 to "Home Care Agency" in 1997.

⁷ Please note the name change in this employer category from "Community Health Agency" in 1995 to "Community Health Agency/Health Centre" in 1997.

Table 5 (continued)
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Type of Employer
June 1997

Health Region	Educational Institution	Self- Employed/ Private Practice ³	Private Nursing Agency/ Private Duty	Association/ Government	Nursing Stations/ Outpost/ Clinic ⁴	Other	Unknown	Total
1 East Kootenay	7	3	1	8	0	10	1	470
2 West Kootenay - Boundary	13	9	1	4	2	9	0	622
3 North Okanagan	3	10	2	11	2	18	3	693
4 South Okanagan - Similkameen	43	12	10	14	1	22	0	1,551
5 Thompson	38	9	2	14	3	22	1	925
6 Fraser Valley	13	15	4	39	1	27	3	1,261
7 South Fraser Valley	55	38	6	41	2	60	4	2,379
8 Simon Fraser	74	10	3	39	1	48	2	2,436
9 Coast Garibaldi	1	4	2	10	1	13	0	335
10 Central Vancouver Island	33	17	4	23	5	28	2	1,274
11 Upper Island/Central Coast	11	14	5	18	4	24	0	690
12 Cariboo	2	4	1	3	4	9	0	360
13 North West	3	1	0	7	17	12	1	513
14 Peace Liard	4	1	0	7	0	7	0	311
15 Northern Interior	22	7	2	22	5	24	2	801
16 Vancouver	166	50	64	148	25	182	6	7,053
17 Burnaby	75	10	10	11	1	16	1	945
18 North Shore	6	23	8	15	1	26	0	1,050
19 Richmond	5	8	5	7	0	6	1	584
20 Capital	88	43	7	97	5	78	5	3,389
TOTAL	662	288	137	538	80	641	32	27,642

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Please note the name change in this employer category from "Self-Employed" in 1995 to "Self-Employed/Private Practice" in 1997.

⁴ Please note the name change in this employer category from "Nursing Stations (Outpost/Nurse Clinics)" in 1995 to "Nursing Stations/Outpost/Clinic" in 1997.

Table 6
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Primary Area of Responsibility
June 1997

Health Region	Direct Patient Care																	Subtotal
	Medical/ Surgical	Critical Care ³	Oncology ⁴	Operating Room	Post-Anest. Recovery Room ⁴	Ambul- atory Care	Emerg- ency Care	Maternal/ Newborn	Psychiatric/ Mental Health	Paedia- trics	Rehab- ilitation ⁴	Geriatrics/ Long Term Care ⁵	Occupational Health	Several Clinical Areas	Community Health	Home Care	Other Patient Care	
1 East Kootenay	96	11	0	25	4	2	15	14	21	1	2	96	1	75	31	21	17	432
2 West Kootenay - Boundary	117	33	3	29	10	3	28	36	31	6	8	109	3	55	43	28	31	573
3 North Okanagan	139	48	0	37	10	8	36	42	46	17	2	126	5	42	44	36	21	659
4 South Okanagan - Similkameen	323	89	11	71	25	17	60	94	72	37	23	282	10	79	86	61	83	1,423
5 Thompson	162	66	2	43	19	21	36	66	60	29	20	90	11	67	79	34	49	854
6 Fraser Valley	247	62	1	57	29	10	80	96	84	26	6	285	4	42	64	30	62	1,185
7 South Fraser Valley	525	119	14	90	38	28	137	173	138	45	15	458	13	55	186	70	119	2,223
8 Simon Fraser	631	229	4	102	50	47	127	155	246	39	21	280	20	42	76	36	122	2,227
9 Coast Garibaldi	54	25	0	17	0	5	23	12	10	1	0	62	2	40	34	17	16	318
10 Central Vancouver Island	270	54	6	64	26	15	60	91	79	20	15	215	4	48	112	42	54	1,175
11 Upper Island/Central Coast	130	38	1	38	8	3	32	43	34	4	1	83	2	71	60	40	48	636
12 Cariboo	72	22	0	21	2	9	18	24	12	2	0	57	1	40	34	10	19	343
13 North West	93	35	0	33	2	3	26	49	13	9	1	39	4	61	67	15	30	480
14 Peace Liard	35	10	0	16	1	3	28	27	10	5	0	53	2	34	29	18	16	287
15 Northern Interior	157	52	4	34	15	11	45	74	42	22	17	53	3	82	56	21	52	740
16 Vancouver	1,446	727	213	287	117	153	214	495	309	423	203	773	35	136	312	190	379	6,412
17 Burnaby	189	60	4	30	18	6	46	52	33	13	3	204	8	18	70	35	44	833
18 North Shore	243	59	11	49	25	5	42	63	40	19	18	189	7	38	64	45	61	978
19 Richmond	122	40	3	29	14	6	33	57	16	6	4	79	12	14	66	27	14	542
20 Capital	754	250	17	149	62	24	121	155	219	76	55	582	26	66	212	136	206	3,110
TOTAL	5,805	2,029	294	1,221	475	379	1,207	1,818	1,515	800	414	4,115	173	1,105	1,725	912	1,443	25,430

... continued

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Please note that Post-Anesthetic Recovery Room was removed from "Critical Care" in 1996 to be a separate primary area of responsibility category.

⁴ Please note, this primary area of responsibility category was added in 1996.

⁵ Please note the name change in this primary area of responsibility category from "Geriatrics/Gerontology" in 1995 to "Geriatrics/Long Term Care" in 1997.

Table 6 (continued)
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Primary Area of Responsibility
June 1997

Health Region	Administration				Education					Research ³	Unknown	Total
	Nursing Education Admin- istration	Nursing Services Admin- istration	Other Admin- istration	Subtotal	Teaching Students	Teaching Employees	Teaching Patients/ Clients	Other Education	Subtotal			
1 East Kootenay	0	17	6	23	7	1	4	0	12	1	2	470
2 West Kootenay - Boundary	2	21	9	32	10	1	5	1	17	0	0	622
3 North Okanagan	0	12	9	21	1	4	4	3	12	1	0	693
4 South Okanagan - Similkameen	2	38	23	63	38	6	18	0	62	0	3	1,551
5 Thompson	2	13	8	23	34	4	3	2	43	1	4	925
6 Fraser Valley	1	26	13	40	11	10	10	0	31	2	3	1,261
7 South Fraser Valley	4	37	30	71	44	9	14	5	72	8	5	2,379
8 Simon Fraser	4	38	28	70	73	29	16	6	124	9	6	2,436
9 Coast Garibaldi	0	7	5	12	0	2	1	0	3	0	2	335
10 Central Vancouver Island	2	32	22	56	23	4	9	1	37	1	5	1,274
11 Upper Island/Central Coast	3	20	8	31	10	4	6	0	20	1	2	690
12 Cariboo	0	10	5	15	1	0	1	0	2	0	0	360
13 North West	2	15	2	19	3	3	3	3	12	0	2	513
14 Peace Liard	0	12	3	15	3	3	2	0	8	0	1	311
15 Northern Interior	3	16	5	24	17	5	9	2	33	1	3	801
16 Vancouver	16	110	119	245	132	66	58	19	275	99	22	7,053
17 Burnaby	5	15	15	35	61	3	3	4	71	3	3	945
18 North Shore	1	22	16	39	4	12	7	2	25	5	3	1,050
19 Richmond	1	7	8	16	3	7	8	2	20	2	4	584
20 Capital	8	74	59	141	68	20	21	10	119	10	9	3,389
TOTAL	56	542	393	991	543	193	202	60	998	144	79	27,642

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Includes 35 RN's who indicated "Nursing Research Only" as their primary area of responsibility and 109 who indicated "Other Research".

Table 7
Practising Registered Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Position
June 1997

Health Region	Chief Nursing Officer/ Director	Assistant/ Associate Director	Supervisor/ Coordinator	Clinical Nurse Specialist ³	Head Nurse/ Unit Manager ⁴	Staff Nurse/ Home Care/ Community Nurse ⁵	Office/Occu- pational/ Industrial Nurse	Instructor/ Professor	Consultant/ Counsellor	Researcher	Other	Unknown	Total
1 East Kootenay	11	2	21	4	22	368	4	8	8	0	22	0	470
2 West Kootenay - Boundary	19	3	33	7	17	479	18	11	8	0	26	1	622
3 North Okanagan	10	1	26	9	23	558	14	5	12	0	33	2	693
4 South Okanagan - Similkameen	37	11	72	24	49	1,195	50	46	13	0	54	0	1,551
5 Thompson	14	4	20	7	15	753	19	37	10	0	44	2	925
6 Fraser Valley	30	4	41	13	32	1,024	19	17	8	0	67	6	1,261
7 South Fraser Valley	51	13	53	27	51	1,890	65	55	32	4	132	6	2,379
8 Simon Fraser	22	2	75	19	79	1,947	44	88	17	7	131	5	2,436
9 Coast Garibaldi	8	2	12	2	11	264	11	2	6	0	17	0	335
10 Central Vancouver Island	29	9	48	12	43	984	29	26	22	1	64	7	1,274
11 Upper Island/Central Coast	13	4	29	4	24	534	23	11	12	1	32	3	690
12 Cariboo	4	0	12	1	16	300	10	2	4	0	11	0	360
13 North West	6	4	19	4	21	401	21	4	5	0	28	0	513
14 Peace Liard	6	2	14	3	16	244	6	5	2	0	11	2	311
15 Northern Interior	14	0	15	7	9	668	16	23	14	1	30	4	801
16 Vancouver	87	33	171	94	123	5,654	60	215	102	70	426	18	7,053
17 Burnaby	19	6	30	7	29	708	24	66	19	3	31	3	945
18 North Shore	15	6	24	9	26	834	29	16	34	3	53	1	1,050
19 Richmond	11	2	14	7	13	466	21	8	10	1	26	5	584
20 Capital	49	11	121	21	87	2,694	65	82	53	4	194	8	3,389
TOTAL	455	119	850	281	706	21,965	548	727	391	95	1,432	73	27,642

¹ Excludes 2,727 Non-Practising RN's.

² Excludes 730 RN's not employed in nursing (15 who are employed in other fields, 31 who are not employed and 684 who provided no other information on their employment status).

³ Please note the name change in this position category from "Clinical Nurse Specialist/Clinician" in 1995 to "Clinical Nurse Specialist" in 1997.

⁴ Please note the name change in this position category from "Head Nurse/Assistant Head Nurse" in 1995 to "Head Nurse/Unit Manager" in 1997.

⁵ Please note the name change in this position category from "Staff Nurse/Home Care/Community Health Nurse" in 1995 to "Staff Nurse/Home Care/Community Nurse" in 1997.

Prepared by:
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Centre for Health Services and Policy Research
The University of British Columbia

Table 8
Analysis of Change in the Number of Registered Nurses¹ in British Columbia
by Health Region
June 1995² to June 1997

Health Region	June 1995	New Registrants ³ by Place of Graduation					Reactivation ⁴	Attrition ⁵	Net Intra-provincial Migration	June 1997
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	507	22	21	2	0	45	7	50	16	525
2 West Kootenay - Boundary	738	23	14	1	0	38	9	70	2	717
3 North Okanagan	804	25	12	1	0	38	20	93	43	812
4 South Okanagan - Similkameen	1,735	65	45	4	0	114	43	162	19	1,749
5 Thompson	1,061	45	17	2	0	64	15	93	16	1,063
6 Fraser Valley	1,407	73	21	10	0	104	23	139	4	1,399
7 South Fraser Valley	2,680	152	63	44	0	259	83	253	73	2,842
8 Simon Fraser	2,666	140	33	31	0	204	52	163	-46	2,713
9 Coast Garibaldi	385	12	9	4	0	25	7	45	26	398
10 Central Vancouver Island	1,432	48	31	3	0	82	36	138	67	1,479
11 Upper Island/Central Coast	789	22	32	2	0	56	19	81	17	800
12 Cariboo	393	28	7	2	0	37	8	37	21	422
13 North West	575	39	21	5	0	65	21	52	-31	578
14 Peace Liard	355	13	20	1	0	34	12	49	-4	348
15 Northern Interior	945	55	28	5	0	88	20	103	-35	915
16 Vancouver	7,504	315	134	99	1	549	181	594	-155	7,485
17 Burnaby	1,122	49	15	30	0	94	25	101	-55	1,085
18 North Shore	1,290	37	20	37	0	94	18	161	15	1,256
19 Richmond	723	31	12	19	0	62	21	78	-15	713
20 Capital	3,841	109	94	20	0	223	90	376	22	3,800
TOTAL	30,952	1,303	649	322	1	2,275	710	2,838	0	31,099

¹ Includes Practising and Non-Practising RNs.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

³ RNs who reported B.C. addresses and were registered in June 1997 and whose date of initial registration was after June 1995.

⁴ RNs who reported B.C. addresses and were registered in June 1997 but not in June 1995 and who were registered for the first time before June 1995.

⁵ RNs who reported B.C. addresses and were registered in June 1995 but not in June 1997.

LICENSED GRADUATE NURSES

Definition: A licensed graduate nurse

- (a) was employed in British Columbia, in a capacity substantially equivalent to a registered nurse, at any time during the two years prior to September 30, 1988;
- (b) graduated from a school of nursing that has standards substantially equivalent to those of any approved school of nursing, and;
- (c) was never a registered nurse, and at the time of application to the RNABC did not qualify as a registered nurse.¹

Governing Statute: Nurses (Registered) Act, R.S.B.C. 1996, Chapter 335; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Registered Nurses Association of British Columbia (RNABC). In order to practise as a Licensed Graduate Nurse in British Columbia, it is necessary to be member of the RNABC. Applications for membership in the RNABC as a Licensed Graduate Nurse were not possible after September 30, 1990. Members of the RNABC who are licensed graduate nurses have use of the title *nurse*, and exclusive use of the titles *Licensed Graduate Nurse* and *L.G.N.*

Dates of Record: December 1995 and December 1997.

Source of Data: Registered Nurses Association of British Columbia (RNABC).

Preparation and Updating:

The tables were prepared from registration data maintained by the RNABC and include licensed graduate nurses (LGN's) who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the membership status is *practising*, when employment in nursing is reported, and when employment address is available. In 1995 and 1997, employment address was available for 87% and 90% of practising LGN's employed in nursing, respectively. Home address is used for the remainder, as well as for practising LGN's who are not employed in nursing, and for LGN's with non-practising membership status.

Definition of Terms:

1. Membership Status

An LGN may hold a *practising* or *non-practising* membership in the RNABC. A practising LGN may or may not be employed in nursing. A non-practising LGN who commences employment in nursing in British Columbia must convert to practising membership. Tables 1a and 1b report the number and number per 10,000 population of practising and non-practising LGN's in British Columbia. Table 1c reports the average annual rates of change in these figures.

¹ Adapted from the *Nursing Statutes Amendment Act*, S.B.C. 1988, Chapter 51, Section 15.

2. Age and Sex

Age and sex information on practising and non-practising LGN's, derived from the RNABC registration database, is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 reports the number of practising LGN's according to their employment status as indicated on the RNABC registration form. The categories shown in the table for employment status are created from the information on the registration form, by first dividing practising LGN's into those who are employed in nursing (those LGN's with an employer code on the registration form) and those who are not employed in nursing. Practising LGN's who *are employed in nursing* are then separated into those employed on a casual/seasonal basis, those employed on a regular basis, and those who supplied no further information. The practising LGN's employed on a regular basis are further separated into those employed full-time and those employed part-time. Practising LGN's who are *not employed in nursing* (those LGN's with no employer code on the registration form) are separated in the table into those who indicated on the registration form either "employed - not in nursing" or "not employed", or gave no further information on their employment status.

Thus, the categories used in the table are:

- | | |
|--------------------------|------------------------------|
| (a) Employed in nursing; | (b) Not employed in nursing; |
| (i) Regular Full-Time | (i) Employed in other field |
| (ii) Regular Part-Time | (ii) Not employed |
| (iii) Seasonal/Casual | (iii) Status unknown. |
| (iv) Status unknown | |

Please note that the *not employed in nursing* categories of "employed in other field" and "not employed" are not shown in the table this year as there were no LGN's in these categories in 1997.

4. Type of Employer

Type of employer is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 4 shows this information for practising LGN's employed in nursing. The RNABC made changes to this category on its registration renewal form in 1996. The categories that were significantly altered are listed here as they appeared in 1995 and 1997:

1995	1997
General Hospital	Hospital (gen, mat, paed, psych)
Psychiatric Hospital/Mental Health Centre	Mental Health Centre

In addition a number of categories underwent minor name changes; these are all footnoted in the tables where they appear. The categories used on the 1997 registration renewal form, and reported by LGN's, were:

- | | |
|---|----------------------------------|
| (a) Hospital; | (c) Extended Care; |
| (b) Rehabilitation/Convalescent Centre; | (d) Long Term Care/Nursing Home; |

- | | |
|---|---|
| (e) Home Care Agency/Community Health Agency/Health Centre; | (f) Physicians Office/Family Practice Unit; |
| | (g) Other. |

Some categories represent groupings of employers where the numbers are small. When this is done, a footnote appears in Table 4 to define how many LGN's reported in each specific area.

5. Primary Area of Responsibility

Primary area of responsibility is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 5 shows this information for practising LGN's employed in nursing. Changes which occurred to the registration renewal form in 1996 included removing Post-Anesthetic Recovery Room from the "Critical Care" category to create a new "Post-Anesthetic Recovery Room" category, and adding the categories "Oncology" and "Rehabilitation". In addition a couple of categories underwent minor name changes; these are footnoted in the table where they appear. The categories shown in the table are:

- | | |
|--------------------------------|-------------------------------|
| (a) Critical Care; | (f) Community Care; |
| (b) Acute Care; | (g) Other Patient Care; |
| (c) Psychiatric/Mental Health; | (h) Education/Administration; |
| (d) Rehabilitation; | (i) Other/Unknown. |
| (e) Geriatrics/Long Term Care; | |

Some of these categories represent groupings of areas of responsibility when the numbers are small. When this is done, a footnote specifies responses for each category.

6. Employment Position

Employment position is reported initially upon registration, and updated annually on the RNABC registration renewal form. Table 6 shows this information for practising LGN's employed in nursing. Changes to the registration renewal form in 1996 included minor name changes to a couple of categories; these are footnoted in the table where they appear. The categories used on the 1997 registration form, and reported by LGN's, were:

- | | |
|--|--|
| (a) Chief Nursing Officer/Director/Assistant/Associate Director; | (d) Staff Nurse/Home Care/Community Nurse; |
| (b) Supervisor/Coordinator; | (e) Other. |
| (c) Head Nurse/Unit Manager; | |

Some of these categories represent groupings of employment positions when the numbers are small. When this is done, a footnote lists specific responses for each category.

Table 1a
Licensed Graduate Nurses in British Columbia
by Health Region by Membership Status
December 1995 and December 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	0	0	0	0	0	0
2 West Kootenay - Boundary	12	12	1	0	13	12
3 North Okanagan	0	0	0	0	0	0
4 South Okanagan - Similkameen	6	7	0	0	6	7
5 Thompson	0	0	1	1	1	1
6 Fraser Valley	8	7	0	0	8	7
7 South Fraser Valley	38	31	2	5	40	36
8 Simon Fraser	16	19	1	1	17	20
9 Coast Garibaldi	1	1	1	0	2	1
10 Central Vancouver Island	7	5	2	2	9	7
11 Upper Island/Central Coast	6	5	1	1	7	6
12 Cariboo	1	1	0	0	1	1
13 North West	5	4	0	0	5	4
14 Peace Liard	2	3	1	1	3	4
15 Northern Interior	4	3	0	0	4	3
16 Vancouver	142	102	11	7	153	109
17 Burnaby	36	34	1	2	37	36
18 North Shore	43	37	1	1	44	38
19 Richmond	11	11	2	1	13	12
20 Capital	23	15	3	2	26	17
TOTAL	361	297	28	24	389	321

Table 1b
Licensed Graduate Nurses in British Columbia
per 10,000 Population by Health Region by Membership Status
December 1995 and December 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	0.00	0.00	0.00	0.00	0.00	0.00
2 West Kootenay - Boundary	1.51	1.47	0.13	0.00	1.63	1.47
3 North Okanagan	0.00	0.00	0.00	0.00	0.00	0.00
4 South Okanagan - Similkameen	0.28	0.31	0.00	0.00	0.28	0.31
5 Thompson	0.00	0.00	0.08	0.08	0.08	0.08
6 Fraser Valley	0.36	0.30	0.00	0.00	0.36	0.30
7 South Fraser Valley	0.73	0.56	0.04	0.09	0.77	0.65
8 Simon Fraser	0.55	0.62	0.03	0.03	0.59	0.65
9 Coast Garibaldi	0.14	0.13	0.14	0.00	0.29	0.13
10 Central Vancouver Island	0.31	0.21	0.09	0.08	0.40	0.29
11 Upper Island/Central Coast	0.52	0.42	0.09	0.08	0.61	0.50
12 Cariboo	0.14	0.13	0.00	0.00	0.14	0.13
13 North West	0.57	0.44	0.00	0.00	0.57	0.44
14 Peace Liard	0.32	0.46	0.16	0.15	0.48	0.61
15 Northern Interior	0.32	0.23	0.00	0.00	0.32	0.23
16 Vancouver	2.69	1.85	0.21	0.13	2.90	1.98
17 Burnaby	1.98	1.81	0.06	0.11	2.04	1.92
18 North Shore	2.49	2.09	0.06	0.06	2.55	2.15
19 Richmond	0.74	0.70	0.14	0.06	0.88	0.76
20 Capital	0.70	0.45	0.09	0.06	0.80	0.51
TOTAL	0.96	0.76	0.07	0.06	1.04	0.82

Table 1c
Average Annual Rate of Change¹: Licensed Graduate Nurses in British Columbia
by Health Region by Membership Status
December 1995 to December 1997

Health Region	Practising		Non-Practising		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	*	*	*	*	*	*
2 West Kootenay - Boundary	0.00	-1.12	*	*	-3.92	-5.00
3 North Okanagan	*	*	*	*	*	*
4 South Okanagan - Similkameen	*	*	*	*	*	*
5 Thompson	*	*	*	*	*	*
6 Fraser Valley	*	*	*	*	*	*
7 South Fraser Valley	-9.68	-12.09	*	*	-5.13	-7.66
8 Simon Fraser	8.97	5.89	*	*	8.47	5.40
9 Coast Garibaldi	*	*	*	*	*	*
10 Central Vancouver Island	*	*	*	*	*	*
11 Upper Island/Central Coast	*	*	*	*	*	*
12 Cariboo	*	*	*	*	*	*
13 North West	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*
15 Northern Interior	*	*	*	*	*	*
16 Vancouver	-15.25	-17.11	-20.23	-21.98	-15.60	-17.45
17 Burnaby	-2.82	-4.40	*	*	-1.36	-2.96
18 North Shore	-7.24	-8.30	*	*	-7.07	-8.13
19 Richmond	0.00	-2.93	*	*	-3.92	-6.74
20 Capital	-19.24	-19.94	*	*	-19.14	-19.83
TOTAL	-9.30	-11.26	-7.42	-9.42	-9.16	-11.12

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Licensed Graduate Nurses in British Columbia
by Health Region by Age and Sex¹
December 1997

Health Region	25-34		35-44		45-54		55-64		65 +		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	0	0	0	0	0	0	0	0	0	0
2 West Kootenay - Boundary	0	0	0	0	0	9	0	3	0	0	0	12	12
3 North Okanagan	0	0	0	0	0	0	0	0	0	0	0	0	0
4 South Okanagan - Similkameen	0	0	0	2	0	2	0	3	0	0	0	7	7
5 Thompson	0	0	0	0	0	0	0	1	0	0	0	1	1
6 Fraser Valley	0	0	0	0	0	3	0	4	0	0	0	7	7
7 South Fraser Valley	0	3	0	8	1	15	0	7	0	2	1	35	36
8 Simon Fraser	0	0	0	4	0	10	0	6	0	0	0	20	20
9 Coast Garibaldi	0	0	0	1	0	0	0	0	0	0	0	1	1
10 Central Vancouver Island	0	0	0	0	0	2	0	3	0	2	0	7	7
11 Upper Island/Central Coast	0	0	0	0	0	4	0	2	0	0	0	6	6
12 Cariboo	0	0	0	0	0	0	0	1	0	0	0	1	1
13 North West	0	0	0	0	0	4	0	0	0	0	0	4	4
14 Peace Liard	0	0	1	1	0	2	0	0	0	0	1	3	4
15 Northern Interior	0	0	0	0	0	3	0	0	0	0	0	3	3
16 Vancouver	0	1	0	19	1	69	0	16	0	3	1	108	109
17 Burnaby	0	0	0	8	0	25	0	3	0	0	0	36	36
18 North Shore	0	0	1	16	0	13	0	8	0	0	1	37	38
19 Richmond	0	0	0	4	0	6	0	1	0	1	0	12	12
20 Capital	0	0	0	2	0	12	0	3	0	0	0	17	17
TOTAL	0	4	2	65	2	179	0	61	0	8	4	317	321

¹ There were no LGN's under the age of 25 and no LGN's with missing age or sex information.

Table 3
Practising Licensed Graduate Nurses¹ in British Columbia
by Health Region by Employment Status
December 1997

Health Region	Employed in Nursing					Not Employed in Nursing ²	Total
	Regular		Seasonal/ Casual	Unknown	Subtotal	Status	
	Full-Time	Part-Time				Unknown	
1 East Kootenay	0	0	0	0	0	0	0
2 West Kootenay - Boundary	5	4	3	0	12	0	12
3 North Okanagan	0	0	0	0	0	0	0
4 South Okanagan - Similkameen	3	2	0	0	5	2	7
5 Thompson	0	0	0	0	0	0	0
6 Fraser Valley	5	1	1	0	7	0	7
7 South Fraser Valley	21	9	1	0	31	0	31
8 Simon Fraser	14	3	2	0	19	0	19
9 Coast Garibaldi	0	0	1	0	1	0	1
10 Central Vancouver Island	4	1	0	0	5	0	5
11 Upper Island/Central Coast	4	1	0	0	5	0	5
12 Cariboo	1	0	0	0	1	0	1
13 North West	3	1	0	0	4	0	4
14 Peace Liard	2	0	1	0	3	0	3
15 Northern Interior	2	1	0	0	3	0	3
16 Vancouver	72	22	6	1	101	1	102
17 Burnaby	21	8	5	0	34	0	34
18 North Shore	32	4	1	0	37	0	37
19 Richmond	8	3	0	0	11	0	11
20 Capital	12	2	1	0	15	0	15
TOTAL	209	62	22	1	294	3	297

¹ Excludes 24 Non-Practising LGNs.

² Please note the Not Employed in Nursing categories of "Employed in Other Field" and "Not Employed" are not shown in the table as there were no LGNs in these categories in 1997.

Table 4
Practising Licensed Graduate Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Type of Employer
December 1997

Health Region	Hospital ³	Rehabilitation/ Convalescent Centre ⁴	Extended Care	Long Term Care/ Nursing Home	Home Care/ Community Health Agency/ Health Centre ⁵	Physician's Office/ Family Practice Unit	Other ⁶	Total
1 East Kootenay	0	0	0	0	0	0	0	0
2 West Kootenay - Boundary	8	0	0	3	0	1	0	12
3 North Okanagan	0	0	0	0	0	0	0	0
4 South Okanagan - Similkameen	0	0	3	1	0	0	1	5
5 Thompson	0	0	0	0	0	0	0	0
6 Fraser Valley	3	0	0	2	0	0	2	7
7 South Fraser Valley	2	0	0	26	0	0	3	31
8 Simon Fraser	3	0	6	10	0	0	0	19
9 Coast Garibaldi	0	0	1	0	0	0	0	1
10 Central Vancouver Island	2	0	2	1	0	0	0	5
11 Upper Island/Central Coast	1	0	0	3	0	1	0	5
12 Cariboo	1	0	0	0	0	0	0	1
13 North West	1	0	2	1	0	0	0	4
14 Peace Liard	2	0	1	0	0	0	0	3
15 Northern Interior	0	0	0	2	0	1	0	3
16 Vancouver	4	6	13	74	1	1	2	101
17 Burnaby	0	0	3	30	0	0	1	34
18 North Shore	2	0	4	29	1	0	1	37
19 Richmond	0	0	0	10	0	1	0	11
20 Capital	1	0	2	11	1	0	0	15
TOTAL	30	6	37	203	3	5	10	294

¹ Excludes 24 Non-Practising LGNs.

² Excludes 3 LGN's who are not employed in nursing and provided no other information on their employment status.

³ Please note the change in this employer category from "General Hospital" in 1995 to "Hospital" in 1997. The new category includes general, maternity, paediatric and psychiatric facilities.

⁴ Please note the name change in this employer category from "Rehabilitation" in 1995 to "Rehabilitation/Convalescent Centre" in 1997.

⁵ Please note the name change in this employer category from "Home Care" in 1995 to "Home Care Agency" in 1997, and from "Community Health Agency" in 1995 to "Community Health Agency/Health Centre" in 1997. Includes 2 LGNs who indicated "Home Care Agency" as their type of employer and 1 who indicated "Community Health Agency/Health Centre".

⁶ Includes 1 LGN who indicated "Mental Health Centre" as his/her type of employer, 2 who indicated "Self-employed/Private Practice", 2 who indicated "Private Nursing Agency/Private Duty", 2 who indicated "Association/Government", and 3 who indicated "Other".

Table 5
Practising Licensed Graduate Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Primary Area of Responsibility
December 1997

Health Region	Critical Care ³	Acute Care ⁴	Psychiatric/ Mental Health	Rehabilitation ⁵	Geriatrics/ Long Term Care ⁶	Community Care ⁷	Other Patient Care	Education/ Admin- istration ⁸	Other/ Unknown ⁹	Total
1 East Kootenay	0	0	0	0	0	0	0	0	0	0
2 West Kootenay - Boundary	1	6	1	0	4	0	0	0	0	12
3 North Okanagan	0	0	0	0	0	0	0	0	0	0
4 South Okanagan - Similkameen	0	0	1	0	2	0	1	0	1	5
5 Thompson	0	0	0	0	0	0	0	0	0	0
6 Fraser Valley	1	2	1	0	2	0	1	0	0	7
7 South Fraser Valley	1	0	4	0	23	1	2	0	0	31
8 Simon Fraser	2	0	1	0	14	0	0	1	1	19
9 Coast Garibaldi	0	0	0	0	1	0	0	0	0	1
10 Central Vancouver Island	1	1	0	0	3	0	0	0	0	5
11 Upper Island/Central Coast	0	0	1	0	2	0	2	0	0	5
12 Cariboo	0	0	0	0	1	0	0	0	0	1
13 North West	0	0	0	0	4	0	0	0	0	4
14 Peace Liard	0	2	0	0	1	0	0	0	0	3
15 Northern Interior	0	0	0	0	2	0	1	0	0	3
16 Vancouver	0	5	5	5	81	2	2	0	1	101
17 Burnaby	0	0	0	0	33	0	1	0	0	34
18 North Shore	0	0	2	1	33	1	0	0	0	37
19 Richmond	0	0	0	0	10	0	1	0	0	11
20 Capital	0	1	0	1	12	0	0	1	0	15
TOTAL	6	17	16	7	228	4	11	2	3	294

¹ Excludes 24 Non-Practising LGN's.

² Excludes 3 LGN's who are not employed in nursing and provided no other information on their employment status.

³ Includes 1 LGN who indicated "Critical Care" as his/her primary area of responsibility, 1 who indicated "P/A Recovery Room" and 4 who indicated "Operating Room".

⁴ Includes 8 LGN's who indicated "Medical/Surgical" as their primary area of responsibility, 2 who indicated "Maternal/Newborn", 1 who indicated "Paediatrics" and 6 who indicated "Several Clinical Areas".

⁵ Please note the addition of this new primary area of responsibility category in 1997.

⁶ Please note the name change in this primary area of responsibility category from "Geriatrics/Gerontology" in 1995 to "Geriatrics/Long Term Care" in 1997.

⁷ Includes 1 LGN who indicated "Community Health" as his/her primary area of responsibility and 3 who indicated "Home Care".

⁸ Includes 1 LGN who indicated "Nursing Services Administration" as his/her primary area of responsibility and 1 who indicated "Teaching - Patients/Clients".

⁹ Includes 2 LGN's who indicated "Occupational Health" as their primary area of responsibility and 1 who did not indicate his/her primary area of responsibility.

Table 6
Practising Licensed Graduate Nurses Employed in Nursing^{1,2} in British Columbia
by Health Region by Position
December 1997

Health Region	Chief Nursing Officer/Director/ Assistant/ Associate Director ³	Supervisor/ Coordinator	Head Nurse/ Unit Manager ⁴	Staff Nurse/ Home Care/ Community Nurse ⁵	Other ⁶	Total
1 East Kootenay	0	0	0	0	0	0
2 West Kootenay - Boundary	0	2	1	8	1	12
3 North Okanagan	0	0	0	0	0	0
4 South Okanagan - Similkameen	1	1	0	2	1	5
5 Thompson	0	0	0	0	0	0
6 Fraser Valley	0	2	1	4	0	7
7 South Fraser Valley	0	1	1	22	7	31
8 Simon Fraser	0	1	1	16	1	19
9 Coast Garibaldi	0	0	0	0	1	1
10 Central Vancouver Island	0	0	0	5	0	5
11 Upper Island/Central Coast	0	0	1	3	1	5
12 Cariboo	0	0	0	1	0	1
13 North West	0	0	0	3	1	4
14 Peace Liard	0	0	0	2	1	3
15 Northern Interior	0	0	0	1	2	3
16 Vancouver	2	0	2	89	8	101
17 Burnaby	0	1	0	31	2	34
18 North Shore	0	0	1	33	3	37
19 Richmond	0	0	0	10	1	11
20 Capital	0	3	0	10	2	15
TOTAL	3	11	8	240	32	294

¹ Excludes 24 Non-Practising LGN's.

² Excludes 3 LGN's who are not employed in nursing and provided no other information on their employment status.

³ Includes 2 LGN's who indicated "Chief Nursing Officer/Director" as their position and 1 LGN who indicated "Assistant/Associate Director".

⁴ Please note the name change in this position category from "Head Nurse/Assistant Head Nurse" in 1995 to "Head Nurse/Unit Manager" in 1997.

⁵ Please note the name change in this position category from "Staff Nurse/Home Care/Community Health Nurse" in 1995 to "Staff Nurse/Home Care/Community Nurse" in 1997.

⁶ Includes 1 LGN who indicated "Consultant/Counsellor" as his/her position, 3 who indicated "Office/Occupational/Industrial Nurse" and 28 who indicated "Other".

REGISTERED PSYCHIATRIC NURSES

Definition: A registered psychiatric nurse

...practises in primary, secondary and tertiary care settings and provides service to individuals whose primary care needs relate to mental and developmental health.

The basis of psychiatric nursing is a caring, therapeutic relationship; the core knowledge and skills of psychiatric nursing are developed from the nursing, psycho-social, biological, and physical sciences.

Psychiatric nursing practice includes clinical, administrative, educational, consultative and research functions.¹

Governing Statute: Nurses (Registered Psychiatric) Act, R.S.B.C. 1996, Chapter 336; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: Registered Psychiatric Nurses Association of British Columbia (RPNABC). Registered members of the RPNABC have use of the title *nurse*, and exclusive use of the titles *Registered Psychiatric Nurse* and *R.P.N.*

Dates of Record: December 1995 and October 1997.

Source of Data: Registered Psychiatric Nurses Association of British Columbia (RPNABC).

Preparation and Updating:

The tables were prepared from data maintained by the RPNABC and include registered psychiatric nurses (RPN's) who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the membership status is *practising* and employment address is available. In December 1995 and October 1997, employment address was available for 99% and 92% of practising RPN's respectively. Home address is used for the remaining, as well as for RPN's with non-practising status. A table on employment status has not been included in this chapter because the RPNABC considers all practising RPN's to be employed in nursing.

In 1997, 337 practising and 109 non-practising RPN's held dual registration with the Registered Nurses Association of British Columbia (RNABC) and the RPNABC. The numbers for 1995 were 399 practising and 139 non-practising nurses. Dual registrants are included in both the RN and RPN tables.

Definition of Terms:

1. Registration Status

Tables 1a and 1b report the number and number per 10,000 population of RPN's in British Columbia by their registration status. Table 1c shows the average annual rates of change in these numbers. An RPN may hold either a *practising* or *non-practising* membership in the RPNABC. A

¹ Adapted from information provided by the Registered Psychiatric Nurses Association of British Columbia. See also *National Occupational Classification 1992*, Major Group 31, No. 3152, Ottawa; Employment and Immigration Canada.

practising RPN must be employed in nursing. A non-practising RPN may not actively engage in the practise of psychiatric nursing.

2. Age and Sex

Age and sex information on practising and non-practising RPN's, derived from the RPNABC registration database, is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Type of Facility

Employment by type of facility for practising RPN's, as reported on the RPNABC registration renewal form, is shown in Table 3. The categories used are:

- | | |
|---|--|
| (a) Psychiatric Hospital; | (j) Community Mental Health Team; |
| (b) Mentally Handicapped Hospital/School; | (k) Boarding Home/Group Home/Specialised Residential Care; |
| (c) Long Term Care/Intermediate Care; | (l) Educational Institution; |
| (d) Corrections; | (m) Geriatric Unit - Assessment/Discharge; |
| (e) Forensics; | (n) Community Health Agency; |
| (f) Adolescent/Child Psychiatry; | (o) Self-Employed; |
| (g) General Hospital, Psychiatry; | (p) Other; |
| (h) General Hospital, Medical; | (q) Unknown. |
| (i) Substance Abuse/Detox; | |

Some of these categories represent groupings of facility types when the number of respondents is small. When this is done, a footnote is used to list specific responses for each category.

4. Primary Area of Responsibility

Primary area of responsibility of practising RPN's, as indicated on their RPNABC registration renewal form, is reported in Table 4. The categories used are:

- | | |
|----------------------------------|-----------------------------|
| (a) Adult Psychiatry; | (i) Rehab/Vocational; |
| (i) Acute | (j) Education; |
| (ii) Chronic | (k) Counselling; |
| (b) Child/Adolescent Psychiatry; | (l) Administration; |
| (c) Mentally Handicapped; | (m) General Nursing; |
| (d) Psychogeriatrics; | (n) Research; |
| (e) Geriatrics; | (o) Owner/Person in Charge; |
| (f) Corrections; | (p) Other; |
| (g) Forensics; | (q) Unknown. |
| (h) Substance Abuse; | |

5. Employment Position

Employment position for practising RPN's, as reported on the RPNABC registration renewal form, is shown in Table 5. The categories used are:

- | | |
|-----------------------------|----------------------------------|
| (a) General Staff Nurse; | (i) Inservice/Staff Development; |
| (b) Assistant Head Nurse; | (j) Consultant; |
| (c) Community Nurse; | (k) Owner; |
| (d) Head Nurse/Team Leader; | (l) Counsellor; |
| (e) Supervisor/Coordinator; | (m) Administrator/Manager; |
| (f) Director; | (n) Other; |
| (g) Clinical Specialist; | (o) Unknown. |
| (h) Instructor; | |

Some of these categories represent groupings of employment positions when the number of respondents is small. When this is done, a footnote is used to list specific responses for each category.

6. Analysis of Change

Table 6 illustrates sources of change which affected the supply of practising RPN's from December 1995 to October 1997.

New registrants include RPN's who were practising members in British Columbia as of October 1997 and who registered with the RPNABC *for the first time* subsequent to December 1995. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent RPN's with British Columbia addresses who were not practising members in December 1995, but were practising members in the province in October 1997, and whose date of initial registration was before December 1995. Also included as reactivations are RPN's who reported out-of-province addresses in December 1995, but who reported British Columbia addresses in October 1997.

Attrition describes practising RPN's who were included in the December 1995 RPN supply, but who, because of death, retirement, out-of-province relocation or non-renewal of practising registration, were not included in the October 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of RPN's among different Health Regions. The net migration total is therefore zero.

Table 1a
Registered Psychiatric Nurses in British Columbia
by Health Region by Registration Status
December 1995¹ and October 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	12	13	3	1	15	14
2 West Kootenay - Boundary	19	20	7	3	26	23
3 North Okanagan	64	65	14	9	78	74
4 South Okanagan - Similkameen	79	88	17	14	96	102
5 Thompson	39	44	15	15	54	59
6 Fraser Valley	115	121	26	20	141	141
7 South Fraser Valley	173	174	64	84	237	258
8 Simon Fraser	998	870	77	91	1,075	961
9 Coast Garibaldi	17	21	8	5	25	26
10 Central Vancouver Island	54	55	16	12	70	67
11 Upper Island/Central Coast	25	21	8	12	33	33
12 Cariboo	21	24	4	3	25	27
13 North West	25	22	4	5	29	27
14 Peace Liard	21	18	4	3	25	21
15 Northern Interior	24	27	5	4	29	31
16 Vancouver	258	261	33	23	291	284
17 Burnaby	163	165	13	18	176	183
18 North Shore	58	52	16	13	74	65
19 Richmond	24	24	6	4	30	28
20 Capital	127	125	25	16	152	141
TOTAL	2,316	2,210	365	355	2,681	2,565

¹ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

Table 1b
Registered Psychiatric Nurses in British Columbia
per 10,000 Population by Health Region by Registration Status
December 1995 and October 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	1.57	1.63	0.39	0.13	1.96	1.76
2 West Kootenay - Boundary	2.39	2.46	0.88	0.37	3.27	2.82
3 North Okanagan	5.80	5.62	1.27	0.78	7.06	6.40
4 South Okanagan - Similkameen	3.67	3.93	0.79	0.62	4.46	4.55
5 Thompson	3.11	3.33	1.20	1.14	4.31	4.47
6 Fraser Valley	5.16	5.17	1.17	0.86	6.33	6.03
7 South Fraser Valley	3.32	3.16	1.23	1.53	4.55	4.69
8 Simon Fraser	34.49	28.39	2.66	2.97	37.15	31.36
9 Coast Garibaldi	2.43	2.79	1.14	0.66	3.57	3.45
10 Central Vancouver Island	2.38	2.32	0.70	0.51	3.08	2.82
11 Upper Island/Central Coast	2.18	1.75	0.70	1.00	2.87	2.75
12 Cariboo	3.00	3.21	0.57	0.40	3.57	3.61
13 North West	2.85	2.42	0.46	0.55	3.31	2.98
14 Peace Liard	3.37	2.76	0.64	0.46	4.01	3.22
15 Northern Interior	1.92	2.07	0.40	0.31	2.32	2.38
16 Vancouver	4.89	4.73	0.63	0.42	5.52	5.15
17 Burnaby	8.99	8.80	0.72	0.96	9.70	9.76
18 North Shore	3.36	2.94	0.93	0.74	4.29	3.68
19 Richmond	1.62	1.53	0.41	0.25	2.03	1.78
20 Capital	3.89	3.76	0.77	0.48	4.66	4.25
TOTAL	6.17	5.64	0.97	0.91	7.14	6.54

Table 1c
Average Annual Rate of Change¹: Registered Psychiatric Nurses in British Columbia
by Health Region by Registration Status
December 1995 to October 1997

Health Region	Practising		Non-Practising		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	4.68	2.45	*	*	-3.87	-5.91
2 West Kootenay - Boundary	2.97	1.66	*	*	-6.77	-7.95
3 North Okanagan	0.89	-1.74	-22.31	-24.34	-2.96	-5.49
4 South Okanagan - Similkameen	6.36	3.91	-10.50	-12.56	3.52	1.15
5 Thompson	7.14	4.07	0.00	-2.86	5.19	2.18
6 Fraser Valley	2.95	0.16	-13.92	-16.26	0.00	-2.71
7 South Fraser Valley	0.33	-2.72	16.81	13.26	4.97	1.78
8 Simon Fraser	-7.54	-10.53	10.02	6.47	-6.20	-9.23
9 Coast Garibaldi	12.83	8.23	*	*	2.27	-1.91
10 Central Vancouver Island	1.05	-1.45	-15.16	-17.26	-2.47	-4.89
11 Upper Island/Central Coast	-9.48	-11.73	*	*	0.00	-2.48
12 Cariboo	7.93	4.03	*	*	4.50	0.72
13 North West	-7.04	-8.84	*	*	-4.00	-5.86
14 Peace Liard	-8.43	-10.69	*	*	-9.48	-11.72
15 Northern Interior	6.96	4.53	*	*	3.88	1.53
16 Vancouver	0.66	-1.87	-18.64	-20.68	-1.38	-3.86
17 Burnaby	0.70	-1.17	20.44	18.20	2.25	0.36
18 North Shore	-6.05	-7.27	-11.19	-12.35	-7.14	-8.35
19 Richmond	0.00	-3.34	*	*	-3.87	-7.08
20 Capital	-0.90	-1.88	-22.51	-23.27	-4.20	-5.14
TOTAL	-2.64	-5.04	-1.57	-4.00	-2.50	-4.90

¹ A 21 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Registered Psychiatric Nurses in British Columbia
by Health Region by Age and Sex¹
October 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	2	0	6	1	3	0	2	0	0	0	0	1	13	14
2 West Kootenay - Boundary	0	0	0	3	1	5	2	7	1	4	0	0	0	0	4	19	23
3 North Okanagan	0	0	1	4	0	18	8	23	6	10	1	1	1	1	17	57	74
4 South Okanagan - Similkameen	0	2	2	12	11	20	5	31	0	14	0	2	1	2	19	83	102
5 Thompson	0	0	0	5	1	15	4	21	5	7	0	0	1	0	11	48	59
6 Fraser Valley	0	1	4	11	9	19	17	43	12	17	3	1	1	3	46	95	141
7 South Fraser Valley	1	5	5	42	7	55	15	81	13	22	2	4	1	5	44	214	258
8 Simon Fraser	3	18	26	146	47	140	117	265	73	104	2	5	4	11	272	689	961
9 Coast Garibaldi	0	0	0	8	3	10	1	4	0	0	0	0	0	0	4	22	26
10 Central Vancouver Island	0	0	0	8	4	20	4	23	2	5	0	0	0	1	10	57	67
11 Upper Island/Central Coast	0	0	0	1	0	16	2	10	1	1	0	0	1	1	4	29	33
12 Cariboo	0	0	0	2	2	7	1	7	3	5	0	0	0	0	6	21	27
13 North West	0	0	0	5	0	4	2	13	1	1	0	0	0	1	3	24	27
14 Peace Liard	0	0	2	3	4	4	4	1	2	0	0	0	0	1	12	9	21
15 Northern Interior	0	0	1	7	2	4	0	14	0	2	0	0	0	1	3	28	31
16 Vancouver	1	6	6	56	18	77	27	59	10	17	0	2	1	4	63	221	284
17 Burnaby	0	5	5	36	10	44	16	40	8	10	0	2	2	5	41	142	183
18 North Shore	0	1	2	17	3	18	3	13	2	5	0	1	0	0	10	55	65
19 Richmond	0	1	0	9	0	8	0	7	1	1	0	0	0	1	1	27	28
20 Capital	0	0	2	13	7	27	18	48	8	15	0	2	0	1	35	106	141
TOTAL	5	39	56	390	129	517	247	713	148	242	8	20	13	38	606	1,959	2,565

¹ There are no RPN's with missing sex information.

Table 3
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Type of Facility
October 1997

Health Region	Psychiatric Hospital	Mentally Handicapped Hospital/ School	LTC/ Intermediate Care	Corrections	Forensics	Adolescent/ Child Psychiatry ²	General Hospital Psychiatry	General Hospital Medical	Substance Abuse/ Detox
1 East Kootenay	0	0	3	0	0	0	5	1	0
2 West Kootenay - Boundary	1	0	4	0	0	0	6	0	0
3 North Okanagan	1	2	16	0	0	0	7	3	1
4 South Okanagan - Similkameen	1	0	15	0	1	0	36	0	1
5 Thompson	0	3	7	1	1	0	5	1	3
6 Fraser Valley	4	0	11	27	4	1	14	3	1
7 South Fraser Valley	4	2	24	0	0	0	39	3	1
8 Simon Fraser	460	29	34	5	119	3	41	17	12
9 Coast Garibaldi	0	0	3	0	0	0	7	1	0
10 Central Vancouver Island	0	0	6	0	1	0	12	0	1
11 Upper Island/Central Coast	0	0	1	0	0	1	10	0	0
12 Cariboo	0	1	4	0	0	0	0	1	0
13 North West	0	0	5	0	0	0	4	0	0
14 Peace Liard	1	0	5	0	0	0	8	0	0
15 Northern Interior	0	0	0	1	1	1	10	1	0
16 Vancouver	4	3	29	5	7	0	43	6	18
17 Burnaby	16	1	18	7	17	54	0	4	2
18 North Shore	0	2	7	0	0	0	19	2	0
19 Richmond	1	0	6	0	0	0	10	1	0
20 Capital	13	1	40	0	1	1	22	1	2
TOTAL	506	44	238	46	152	61	298	45	42

... continued

¹ Excludes 355 Non-Practising RPN's.

² Includes 59 RPN's who indicated "Adolescent Psychiatry" as their type of facility and 2 RPN's who indicated "Child Psychiatry".

Table 3 (continued)
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Type of Facility
October 1997

Health Region	Community Mental Health Team	Boarding/ Group Home/ Specialized Res. Care	Educational Institution	Geriatric Unit- Assessment/ Discharge	Community Health Agency	Self Employed	Other ²	Unknown	Total
1 East Kootenay	1	1	0	0	1	0	1	0	13
2 West Kootenay - Boundary	1	2	0	1	2	3	0	0	20
3 North Okanagan	5	20	1	0	5	2	0	2	65
4 South Okanagan - Similkameen	11	10	1	1	3	3	2	3	88
5 Thompson	7	8	0	2	2	3	1	0	44
6 Fraser Valley	20	22	1	0	8	3	0	2	121
7 South Fraser Valley	36	36	3	1	8	4	10	3	174
8 Simon Fraser	43	38	19	13	9	5	6	17	870
9 Coast Garibaldi	4	2	0	0	3	0	0	1	21
10 Central Vancouver Island	13	6	1	0	7	3	3	2	55
11 Upper Island/Central Coast	5	0	0	0	3	0	0	1	21
12 Cariboo	8	4	0	0	2	1	2	1	24
13 North West	5	1	1	0	3	1	0	2	22
14 Peace Liard	1	0	0	0	0	0	1	2	18
15 Northern Interior	5	1	0	0	3	2	1	1	27
16 Vancouver	59	35	1	13	12	3	18	5	261
17 Burnaby	27	5	0	1	4	0	4	5	165
18 North Shore	5	13	0	1	0	2	1	0	52
19 Richmond	0	6	0	0	0	0	0	0	24
20 Capital	12	16	2	1	2	3	6	2	125
TOTAL	268	226	30	34	77	38	56	49	2,210

¹ Excludes 355 Non-Practising RPN's.

² Includes 6 RPN's who indicated "Physicians Office/Medical Clinic" as their type of facility and 50 RPN's who indicated "Other".

Table 4
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Primary Area of Responsibility
October 1997

Health Region	Adult Psychiatry		Child/ Adolescent	Mentally	Psycho- geriatrics	Geriatrics	Corrections	Forensics	Substance Abuse	Rehab/ Vocational
	Acute	Chronic	Psychiatry	Handicapped						
1 East Kootenay	5	1	1	0	0	3	0	0	0	0
2 West Kootenay - Boundary	7	2	0	0	2	4	0	0	0	0
3 North Okanagan	9	7	1	11	5	12	0	0	0	1
4 South Okanagan - Similkameen	36	14	1	1	10	5	0	1	1	0
5 Thompson	6	2	1	9	1	6	1	3	2	0
6 Fraser Valley	23	19	4	8	2	11	27	3	1	3
7 South Fraser Valley	51	32	1	17	8	23	0	0	2	3
8 Simon Fraser	178	202	7	35	115	58	6	113	10	7
9 Coast Garibaldi	9	4	0	0	2	2	0	0	0	0
10 Central Vancouver Island	20	5	0	2	5	4	0	1	1	1
11 Upper Island/Central Coast	7	3	1	0	3	1	0	1	0	0
12 Cariboo	4	5	0	0	1	3	0	0	0	0
13 North West	5	3	0	1	0	4	0	0	1	0
14 Peace Liard	8	0	0	0	2	2	0	0	0	0
15 Northern Interior	9	4	2	0	0	0	1	2	0	0
16 Vancouver	60	50	2	3	18	33	3	8	14	4
17 Burnaby	33	9	39	0	3	15	8	22	0	3
18 North Shore	24	9	0	3	3	5	0	0	0	1
19 Richmond	11	3	0	0	1	5	0	0	0	1
20 Capital	33	12	0	15	3	33	0	3	2	0
TOTAL	538	386	60	105	184	229	46	157	34	24

... continued

¹ Excludes 355 Non-Practising RPN's.

Table 4 (continued)
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Primary Area of Responsibility
October 1997

Health Region	Education	Counselling	Admin- istration	General Nursing	Research	Owner/ Person in Charge	Other	Unknown	Total
1 East Kootenay	0	2	0	1	0	0	0	0	13
2 West Kootenay - Boundary	0	1	0	1	0	3	0	0	20
3 North Okanagan	1	4	2	2	0	6	2	2	65
4 South Okanagan - Similkameen	2	4	0	3	1	3	3	3	88
5 Thompson	0	6	3	1	1	1	1	0	44
6 Fraser Valley	0	0	1	7	0	6	4	2	121
7 South Fraser Valley	1	4	3	6	1	9	10	3	174
8 Simon Fraser	23	8	20	28	10	3	24	23	870
9 Coast Garibaldi	0	1	1	1	0	0	0	1	21
10 Central Vancouver Island	1	3	6	1	0	2	1	2	55
11 Upper Island/Central Coast	0	3	0	0	0	0	1	1	21
12 Cariboo	1	5	3	0	0	1	0	1	24
13 North West	1	3	1	0	0	1	0	2	22
14 Peace Liard	0	1	1	1	0	0	1	2	18
15 Northern Interior	0	4	0	1	0	2	0	2	27
16 Vancouver	2	12	10	12	4	7	13	6	261
17 Burnaby	0	9	7	7	1	1	4	4	165
18 North Shore	0	2	2	1	0	1	1	0	52
19 Richmond	1	0	0	1	0	1	0	0	24
20 Capital	2	4	7	2	0	2	5	2	125
TOTAL	35	76	67	76	18	49	70	56	2,210

¹ Excludes 355 Non-Practising RPNs.

Table 5
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Employment Position
October 1997

Health Region	General Staff Nurse	Assistant Head Nurse	Community Nurse	Head Nurse/ Team Leader	Supervisor/ Coordinator	Director ²	Clinical Specialist	Instructor
1 East Kootenay	8	0	2	0	0	0	0	0
2 West Kootenay - Boundary	8	0	3	0	4	0	1	0
3 North Okanagan	23	0	5	1	1	4	1	0
4 South Okanagan - Similkameen	55	0	8	3	3	3	1	0
5 Thompson	15	1	6	2	3	2	2	0
6 Fraser Valley	59	4	16	4	14	2	4	0
7 South Fraser Valley	86	1	39	1	4	7	1	1
8 Simon Fraser	613	54	46	30	37	5	4	17
9 Coast Garibaldi	10	0	6	1	2	1	0	0
10 Central Vancouver Island	20	0	11	1	5	3	1	1
11 Upper Island/Central Coast	8	0	3	2	3	0	1	0
12 Cariboo	6	2	7	0	1	2	0	0
13 North West	7	1	4	1	2	0	0	1
14 Peace Liard	14	1	0	0	0	1	0	0
15 Northern Interior	8	0	5	1	3	0	0	0
16 Vancouver	112	8	71	11	14	7	3	0
17 Burnaby	80	29	20	7	13	2	0	0
18 North Shore	32	3	5	4	1	2	0	0
19 Richmond	15	1	0	2	0	1	1	0
20 Capital	71	3	12	4	7	3	0	0
TOTAL	1,250	108	269	75	117	45	20	20

... continued

¹ Excludes 355 Non-Practising RPN's.

² Includes 42 RPN's who indicated "Director" as their employment position and 3 RPN's who indicated "Assistant/Associate Director".

Table 5 (continued)
Practising Registered Psychiatric Nurses¹ in British Columbia
by Health Region by Employment Position
October 1997

Health Region	Inservice/ Staff Develop- ment	Consultant	Owner	Counsellor	Admin- istrator/ Manager	Other	Unknown	Total
1 East Kootenay	0	0	1	2	0	0	0	13
2 West Kootenay - Boundary	0	0	3	0	1	0	0	20
3 North Okanagan	1	0	7	5	8	7	2	65
4 South Okanagan - Similkameen	1	0	1	3	2	5	3	88
5 Thompson	1	2	2	2	5	1	0	44
6 Fraser Valley	0	0	3	2	6	5	2	121
7 South Fraser Valley	1	3	7	3	7	9	4	174
8 Simon Fraser	3	3	3	7	15	12	21	870
9 Coast Garibaldi	0	0	0	0	0	0	1	21
10 Central Vancouver Island	0	1	0	3	6	1	2	55
11 Upper Island/Central Coast	0	0	0	2	0	1	1	21
12 Cariboo	0	1	2	0	1	1	1	24
13 North West	0	0	1	1	2	0	2	22
14 Peace Liard	0	0	0	0	1	0	1	18
15 Northern Interior	0	0	1	6	0	1	2	27
16 Vancouver	2	2	3	4	11	8	5	261
17 Burnaby	3	1	0	2	2	2	4	165
18 North Shore	0	0	1	2	2	0	0	52
19 Richmond	0	0	0	0	4	0	0	24
20 Capital	1	1	1	4	11	5	2	125
TOTAL	13	14	36	48	84	58	53	2,210

¹ Excludes 355 Non-Practising RPN's.

Table 6
Analysis of Change in the Number of Practising Registered Psychiatric Nurses¹
in British Columbia by Health Region
December 1995² to October 1997

Health Region	December 1995	New Registrants ³ by Place of Graduation					Reactivation ⁴	Attrition ⁵	Net Intra-provincial Migration	October 1997
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	12	0	2	0	0	2	0	1	0	13
2 West Kootenay - Boundary	19	1	1	0	0	2	1	3	1	20
3 North Okanagan	64	0	2	0	0	2	5	1	-5	65
4 South Okanagan - Similkameen	79	4	1	0	0	5	2	4	6	88
5 Thompson	39	1	1	0	0	2	4	5	4	44
6 Fraser Valley	115	6	0	0	0	6	3	11	8	121
7 South Fraser Valley	173	10	3	1	0	14	2	28	13	174
8 Simon Fraser	998	45	0	1	0	46	13	133	-54	870
9 Coast Garibaldi	17	2	1	0	0	3	3	3	1	21
10 Central Vancouver Island	54	3	0	0	0	3	3	5	0	55
11 Upper Island/Central Coast	25	0	0	0	0	0	2	6	0	21
12 Cariboo	21	0	0	0	0	0	2	2	3	24
13 North West	25	0	1	0	0	1	1	7	2	22
14 Peace Liard	21	0	1	0	1	2	0	2	-3	18
15 Northern Interior	24	2	0	0	0	2	1	2	2	27
16 Vancouver	258	14	1	1	0	16	9	33	11	261
17 Burnaby	163	10	1	0	0	11	2	18	7	165
18 North Shore	58	3	0	0	0	3	2	15	4	52
19 Richmond	24	6	0	0	0	6	0	2	-4	24
20 Capital	127	1	2	0	0	3	3	12	4	125
TOTAL	2,316	108	17	3	1	129	58	293	0	2,210

¹ Excludes 355 Non-Practising RPN's.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

³ RPN's who reported B.C. addresses and were practising registrants in October 1997 and whose date of initial registration was after December 1995.

⁴ RPN's who reported B.C. addresses and were practising registrants in October 1997 but not in December 1995 and who were registered for the first time before December 1995.

⁵ RPN's who reported B.C. addresses and were practising registrants in December 1995 but not in October 1997.

VII. NUTRITION AND DIETARY SERVICES

DIETITIANS AND NUTRITIONISTS

Definition: A dietitian/nutritionist

...is a professional uniquely prepared for the practise of nutrition care through university education and required practicum in food and nutrition as well as biological, social and management sciences. The dietitian/nutritionist applies knowledge and skills in normal and therapeutic nutrition and in food service systems management to individuals, groups, institutions, organisations and the community.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the British Columbia Dietitians' and Nutritionists' Association (BCDNA) is voluntary. However, members of the BCDNA have exclusive use of the titles: *Registered Dietitian, Registered Nutritionist, Registered Dietitian/Nutritionist* and *R.D.N.*

Dates of Record: December 1995 and December 1997.

Source of Data: British Columbia Dietitians' and Nutritionists' Association (BCDNA).

Preparation and Updating:

The tables are derived from the membership database of the BCDNA and include registered dietitians and nutritionists (RDN's) who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when employment in dietetics/nutrition is reported and when employment address is available. In December 1995, employment address was available for 94% of practising RDN's employed in dietetics/nutrition. Home address was used for the remainder, as well as for RDN's with practising status who were not employed in dietetics/nutrition, and for RDN's with non-practising status. In December 1997, employment address was available for 94% of registered RDN's employed in dietetics/nutrition. Home address was used for the remainder, as well as for registered RDN's who were not employed in dietetics/nutrition.

Definition of Terms:

1. Membership Status

In 1995, RDN's could hold either a *practising* or *non-practising* membership with the BCDNA. In 1997, the BCDNA changed its membership categories, eliminating the *non-practising* category entirely, and replacing the *practising* category with a *registered* category. Table 1 shows the number of RDN's by membership status, the number per 10,000 population and the average annual rates of change in these figures.

¹ Adapted from information provided by the Canadian Dietetic Association. See also *National Occupational Classification 1992*, Major Group 31, No. 3132, Ottawa; Employment and Immigration Canada.

2. Age and Sex

Table 2 reports age and sex information for dietitians and nutritionists as derived from the BCDNA membership database. Age information in this table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Table 3 displays employment status of members of the BCDNA as reported on their annual registration renewal form using the following categories:

- (a) Employed in dietetics/nutrition;
 - (i) Full-time
 - (ii) Part-time
 - (iii) Casual
 - (iv) Temporary
 - (v) On leave
 - (vi) Unknown
- (b) Employed in other field;
- (c) Not employed (includes unemployed, retired/resigned and student);
- (d) Unknown.

4. Principal Employer

Table 4 shows type of principal employer for members of the BCDNA employed in nutrition/dietetics. The following categories are used:

- | | |
|---|------------------------------------|
| (a) General/Acute Care Facility; | (h) Other Health Care Facility; |
| (b) Extended Care Facility; | (i) Gov't/Community Health Agency; |
| (c) Acute/Extended Care Facility; | (j) Voluntary/Non-Profit Agency; |
| (d) Rehabilitation Facility; | (k) Education/University/College; |
| (e) Paediatric Facility; | (l) Business/Industry; |
| (f) Psychiatric Facility; | (m) Self Employed; |
| (g) Continuing/Long Term Care Facility; | (n) Unknown. |

5. Principal Area of Responsibility

Table 5 reports principal area of responsibility for members of the BCDNA employed in nutrition/dietetics, as indicated on the BCDNA registration form. The categories used on the registration form were:

- | | |
|----------------------------------|-----------------------------|
| (a) Administrative/Food Service; | (f) Outpatient/Counselling; |
| (b) Administrative/Clinical; | (g) Education; |
| (c) Clinical/Therapeutic; | (h) Research; |
| (d) Community/Public Health; | (i) Sales/Marketing; |
| (e) Private Consultation; | (j) Other/Unknown. |

Some of these categories are combined in Table 5 when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

6. Principal Employment Position

Principal employment position is reported annually on the BCDNA registration form. Table 6 shows this information for members of the BCDNA employed in nutrition/dietetics. The following categories are used:

- | | |
|---|----------------------------------|
| (a) Staff Dietitian/Nutritionist; | (g) Instructor/Faculty Position; |
| (b) Senior Dietitian/Nutritionist; | (h) Consultant; |
| (c) Sole Charge; | (i) Sales Representative; |
| (d) Manager/Co-ordinator; | (j) Other/Unknown. |
| (e) Department Head/Director; | |
| (f) Assistant Department Head/
Director/Manager; | |

Some of these categories represent groupings of employment positions when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

7. Analysis of Change

Table 7 illustrates sources of change which affected the supply of registered dietitians and nutritionists from December 1995 to December 1997.

New registrants include RDN's who were members of the BCDNA as of December 1997 and who registered with the BCDNA *for the first time* subsequent to December 1995. They are reported in the table according to their place of graduation (i.e., British Columbia, Other Canada, Other Country or Unknown). Excluded from the table are new members who reported out-of-province addresses.

Reactivations represent RDN's in British Columbia who were not members of the BCDNA in December 1995, but were members in the province in December 1997, and whose date of initial registration was before December 1995. Also included as reactivations are RDN's who reported out-of-province addresses in December 1995, but who reported British Columbia addresses in December 1997.

Attrition describes RDN's who were members of the BCDNA and were included in the December 1995 supply, but who, because of death, retirement, out-of-province relocation or non-renewal of membership, were not included in the December 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of members of the BCDNA among different Health Regions. The net migration total is therefore zero.

Table 1
Dietitians and Nutritionists (BCDNA Members)¹ in British Columbia
by Health Region by Membership Status²
December 1995 and December 1997

Health Region	Number per 10,000 Population						Average Annual Rate of Change ⁴	
	1995			1997	1995	1997	Number ⁵	Ratio ⁶
	Practising	Non-Practising	Total	Registered ³	Total	Registered		
1 East Kootenay	11	2	13	15	1.70	1.88	7.42	5.42
2 West Kootenay - Boundary	17	1	18	19	2.26	2.33	2.74	1.59
3 North Okanagan	14	4	18	15	1.63	1.30	-8.71	-10.80
4 South Okanagan - Similkameen	27	3	30	35	1.39	1.56	8.01	5.84
5 Thompson	21	1	22	22	1.75	1.67	0.00	-2.51
6 Fraser Valley	20	2	22	23	0.99	0.98	2.25	-0.18
7 South Fraser Valley	52	5	57	69	1.09	1.25	10.02	7.09
8 Simon Fraser	66	4	70	69	2.42	2.25	-0.72	-3.52
9 Coast Garibaldi	7	0	7	6	1.00	0.80	*	*
10 Central Vancouver Island	27	1	28	35	1.23	1.47	11.80	9.37
11 Upper Island/Central Coast	12	0	12	12	1.04	1.00	0.00	-2.17
12 Cariboo	6	1	7	10	1.00	1.34	*	*
13 North West	10	0	10	14	1.14	1.54	18.32	16.32
14 Peace Liard	4	0	4	4	0.64	0.61	*	*
15 Northern Interior	12	2	14	14	1.12	1.07	0.00	-1.99
16 Vancouver	209	31	240	237	4.55	4.30	-0.63	-2.81
17 Burnaby	29	5	34	37	1.87	1.97	4.32	2.62
18 North Shore	32	15	47	39	2.72	2.21	-8.91	-9.95
19 Richmond	10	5	15	19	1.01	1.21	12.55	9.25
20 Capital	83	8	91	88	2.79	2.65	-1.66	-2.51
TOTAL	669	90	759	782	2.02	1.99	1.50	-0.69

¹ Membership in the BCDNA is voluntary.

² The BCDNA eliminated the former membership category of "Non-Practising" in 1997. Thus as of 1997, all BCDNA members are referred to as "Registered". Please see text.

³ Sixty-four of the 90 "Non-Practising" members in 1995 are "Registered" members in 1997.

⁴ A 24 month rate of change has been adjusted to an average annual figure.

⁵ Rate of change (in percent) in the 1995 "Total" and the 1997 "Registered".

⁶ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Dietitians and Nutritionists (BCDNA Members)¹ in British Columbia
by Health Region by Age and Sex²
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	6	0	3	0	5	0	1	0	0	0	0	0	15	15
2 West Kootenay - Boundary	0	1	1	5	1	5	0	4	0	2	0	0	0	0	2	17	19
3 North Okanagan	0	0	1	6	0	5	0	2	0	1	0	0	0	0	1	14	15
4 South Okanagan - Similkameen	0	1	0	14	0	12	1	6	0	1	0	0	0	0	1	34	35
5 Thompson	0	0	0	7	0	12	0	2	0	1	0	0	0	0	0	22	22
6 Fraser Valley	0	0	0	7	0	11	0	3	0	2	0	0	0	0	0	23	23
7 South Fraser Valley	0	1	0	29	0	24	0	10	0	3	0	0	0	2	0	69	69
8 Simon Fraser	0	2	0	20	2	21	0	17	0	4	0	0	1	2	3	66	69
9 Coast Garibaldi	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	6	6
10 Central Vancouver Island	0	0	0	7	0	14	0	10	0	3	0	0	0	1	0	35	35
11 Upper Island/Central Coast	0	0	0	2	0	6	0	3	0	1	0	0	0	0	0	12	12
12 Cariboo	0	0	0	7	0	1	0	1	0	0	0	0	0	1	0	10	10
13 North West	0	0	0	6	0	5	0	3	0	0	0	0	0	0	0	14	14
14 Peace Liard	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	4	4
15 Northern Interior	0	1	0	3	0	3	0	5	0	1	0	0	0	1	0	14	14
16 Vancouver	0	4	2	82	1	85	0	44	0	6	0	1	0	12	3	234	237
17 Burnaby	0	0	0	18	0	11	0	3	0	2	0	0	0	3	0	37	37
18 North Shore	0	0	0	10	0	12	0	11	0	4	0	0	0	2	0	39	39
19 Richmond	0	2	1	6	0	4	0	5	0	0	0	0	0	1	1	18	19
20 Capital	0	0	0	17	1	29	0	28	0	6	0	3	1	3	2	86	88
TOTAL	0	12	5	255	5	266	1	166	0	38	0	4	2	28	13	769	782

¹ Membership in the BCDNA is voluntary.

² There are no RDN's with missing sex information.

Table 3
Dietitians and Nutritionists (BCDNA Members)¹ in British Columbia
by Health Region by Employment Status
December 1997

Health Region	Employed in Dietetics/Nutrition							Employed in Other Field	Not Employed	Unknown	Total
	Full-Time	Part-Time	Casual	Temporary	On Leave	Unknown	Subtotal				
1 East Kootenay	9	2	1	1	0	0	13	1	1	0	15
2 West Kootenay - Boundary	4	11	3	0	0	0	18	1	0	0	19
3 North Okanagan	7	6	0	0	0	0	13	1	1	0	15
4 South Okanagan - Similkameen	12	13	2	3	2	0	32	1	2	0	35
5 Thompson	8	10	1	0	1	0	20	0	2	0	22
6 Fraser Valley	10	10	0	1	0	0	21	2	0	0	23
7 South Fraser Valley	26	25	6	1	4	0	62	2	5	0	69
8 Simon Fraser	30	21	5	0	4	1	61	1	7	0	69
9 Coast Garibaldi	3	2	0	1	0	0	6	0	0	0	6
10 Central Vancouver Island	14	15	3	0	0	1	33	0	1	1	35
11 Upper Island/Central Coast	5	7	0	0	0	0	12	0	0	0	12
12 Cariboo	4	4	0	1	0	0	9	0	0	1	10
13 North West	6	3	3	0	0	0	12	0	2	0	14
14 Peace Liard	2	1	0	0	0	0	3	0	0	1	4
15 Northern Interior	6	4	1	0	0	0	11	2	1	0	14
16 Vancouver	116	66	18	1	5	1	207	11	19	0	237
17 Burnaby	19	9	1	2	0	0	31	2	4	0	37
18 North Shore	11	18	3	1	0	0	33	2	3	1	39
19 Richmond	4	5	4	1	0	0	14	2	3	0	19
20 Capital	46	23	5	0	1	0	75	2	9	2	88
TOTAL	342	255	56	13	17	3	686	30	60	6	782

¹ Membership in the BCDNA is voluntary.

Table 4
Dietitians and Nutritionists (BCDNA Members)¹ Employed in Nutrition/Dietetics² in British Columbia
by Health Region by Principal Employer
December 1997

Health Region	General/ Acute Care Facility	Extended Care Facility	Acute/ Extended Care Facility	Rehabil- itation Facility	Paediatric Facility	Psychiatric Facility	Continuing/ LTC Facility	Other Health Care Facility	Government/ Community Health Agency	Voluntary/ Non-Profit Agency	Education/ University/ College	Business/ Industry	Self Employed	Unknown	Total
1 East Kootenay	4	0	6	0	0	0	1	0	2	0	0	0	0	0	13
2 West Kootenay - Boundary	3	0	6	0	0	0	4	0	3	0	0	1	1	0	18
3 North Okanagan	3	1	4	1	0	0	1	0	3	0	0	0	0	0	13
4 South Okanagan - Similkameen	14	3	5	0	0	0	4	0	4	0	0	0	2	0	32
5 Thompson	9	3	1	0	0	0	1	0	4	2	0	0	0	0	20
6 Fraser Valley	11	2	2	0	0	1	2	0	2	0	0	1	0	0	21
7 South Fraser Valley	15	3	14	0	0	0	10	1	9	2	1	2	5	0	62
8 Simon Fraser	27	1	5	0	0	7	9	0	5	0	0	3	4	0	61
9 Coast Garibaldi	0	0	2	0	0	0	1	0	1	1	0	0	1	0	6
10 Central Vancouver Island	9	1	7	0	0	0	5	0	6	1	0	2	2	0	33
11 Upper Island/Central Coast	2	0	3	0	0	0	2	1	1	1	0	0	2	0	12
12 Cariboo	0	1	3	0	0	0	0	0	3	0	0	0	2	0	9
13 North West	3	0	2	0	0	0	1	0	1	1	0	1	3	0	12
14 Peace Liard	1	0	1	0	0	0	0	0	1	0	0	0	0	0	3
15 Northern Interior	4	0	3	0	0	0	1	0	1	0	0	1	1	0	11
16 Vancouver	76	7	14	6	20	0	23	8	19	9	10	4	10	1	207
17 Burnaby	4	1	7	1	0	0	8	0	4	3	0	2	1	0	31
18 North Shore	10	2	5	0	0	0	6	0	3	0	1	2	4	0	33
19 Richmond	5	1	2	0	0	0	2	0	1	1	0	1	1	0	14
20 Capital	25	3	12	2	0	0	12	1	14	0	1	1	4	0	75
TOTAL	225	29	104	10	20	8	93	11	87	21	13	21	43	1	686

¹ Membership in the BCDNA is voluntary.

² Excludes 30 RDN's who are employed in other fields, 60 who are not employed and 6 who did not indicate their employment status.

Table 5
Dietitians and Nutritionists (BCDNA Members)¹ Employed in Nutrition/Dietetics² in British Columbia
by Health Region by Principal Area of Responsibility
December 1997

Health Region	Administrative/ Food Service	Administrative/ Clinical	Clinical/ Therapeutic	Community/ Public Health	Private Consultation	Outpatient/ Counselling	Education/ Research ³	Sales/ Marketing	Other/ Unknown ⁴	Total
1 East Kootenay	2	4	2	2	0	2	1	0	0	13
2 West Kootenay - Boundary	1	7	3	3	0	3	0	0	1	18
3 North Okanagan	0	3	3	2	2	3	0	0	0	13
4 South Okanagan - Similkameen	2	6	13	3	2	4	1	0	1	32
5 Thompson	4	4	4	5	0	3	0	0	0	20
6 Fraser Valley	4	4	7	2	0	4	0	0	0	21
7 South Fraser Valley	8	10	22	9	3	8	2	0	0	62
8 Simon Fraser	7	8	29	5	3	5	0	2	2	61
9 Coast Garibaldi	1	2	0	2	1	0	0	0	0	6
10 Central Vancouver Island	4	7	8	7	3	3	0	0	1	33
11 Upper Island/Central Coast	1	3	2	1	1	4	0	0	0	12
12 Cariboo	1	2	0	2	1	3	0	0	0	9
13 North West	1	3	1	4	2	0	1	0	0	12
14 Peace Liard	0	2	0	1	0	0	0	0	0	3
15 Northern Interior	1	1	5	1	0	3	0	0	0	11
16 Vancouver	19	22	94	23	6	25	11	3	4	207
17 Burnaby	3	8	7	5	0	4	3	0	1	31
18 North Shore	4	4	15	4	2	2	1	1	0	33
19 Richmond	1	1	7	2	0	1	1	0	1	14
20 Capital	10	12	30	9	4	7	1	1	1	75
TOTAL	74	113	252	92	30	84	22	7	12	686

¹ Membership in the BCDNA is voluntary.

² Excludes 30 RDN's who are employed in other fields, 60 who are not employed and 6 who did not indicate their employment status.

³ Includes 16 RDN's who indicated "Education" as their principal area of responsibility and 6 who indicated "Research".

⁴ Includes 11 RDN's who reported "Other" as their principal area of responsibility and 1 who did not indicate his/her area of responsibility.

Table 6
Dietitians and Nutritionists (BCDNA Members)¹ Employed in Nutrition/Dietetics² in British Columbia
by Health Region by Principal Employment Position
December 1997

Health Region	Staff Dietitian/ Nutritionist	Senior Dietitian/ Nutritionist	Sole Charge	Manager/ Co-ordinator	Department Head/ Director	Assistant Department Head/Director/ Manager	Instructor/ Faculty Position ³	Consultant	Sales Representative	Other/ Unknown ⁴	Total
1 East Kootenay	4	1	7	0	1	0	0	0	0	0	13
2 West Kootenay - Boundary	6	1	1	0	4	0	0	6	0	0	18
3 North Okanagan	4	2	1	3	2	0	0	1	0	0	13
4 South Okanagan - Similkameen	17	4	3	2	0	1	0	4	0	1	32
5 Thompson	12	1	0	2	5	0	0	0	0	0	20
6 Fraser Valley	11	1	1	1	5	1	0	1	0	0	21
7 South Fraser Valley	28	3	2	9	6	1	1	12	0	0	62
8 Simon Fraser	33	2	5	7	5	2	0	4	2	1	61
9 Coast Garibaldi	3	0	1	0	1	0	0	1	0	0	6
10 Central Vancouver Island	12	2	3	5	4	1	1	4	0	1	33
11 Upper Island/Central Coast	2	1	2	4	1	0	0	2	0	0	12
12 Cariboo	1	0	4	1	0	0	0	3	0	0	9
13 North West	2	1	2	2	2	0	0	3	0	0	12
14 Peace Liard	1	0	2	0	0	0	0	0	0	0	3
15 Northern Interior	7	0	1	0	1	0	0	2	0	0	11
16 Vancouver	123	13	7	13	15	4	6	21	3	2	207
17 Burnaby	16	1	5	5	0	1	0	3	0	0	31
18 North Shore	11	3	2	3	3	1	1	8	1	0	33
19 Richmond	9	0	1	1	0	0	0	2	0	1	14
20 Capital	35	7	4	8	7	2	0	10	1	1	75
TOTAL	337	43	54	66	62	14	9	87	7	7	686

¹ Membership in the BCDNA is voluntary.

² Excludes 30 RDN's who are employed in other fields, 60 who are not employed and 6 who did not indicate their employment status.

³ Includes 2 RDN's who indicated "Researcher" as their principal position.

⁴ Includes 6 RDN's who reported "Other" as their principal position and 1 who did not indicate his/her principal position.

Table 7
Analysis of Change in the Number of Dietitians and Nutritionists (BCDNA Members)^{1,2} in British Columbia
by Health Region
December 1995 to December 1997

Health Region	December 1995	New Registrants ^{3,4} by Place of Graduation				Reactivation ⁵	Attrition ⁶	Net Intra-provincial Migration	December 1997
		B.C.	Other Canada	Other Country	Subtotal				
1 East Kootenay	13	0	2	0	2	0	1	1	15
2 West Kootenay - Boundary	18	2	1	0	3	0	0	-2	19
3 North Okanagan	18	0	0	0	0	0	3	0	15
4 South Okanagan - Similkameen	30	2	2	0	4	2	2	1	35
5 Thompson	22	0	2	1	3	0	1	-2	22
6 Fraser Valley	22	0	2	0	2	2	4	1	23
7 South Fraser Valley	57	7	2	0	9	2	4	5	69
8 Simon Fraser	70	4	4	0	8	0	5	-4	69
9 Coast Garibaldi	7	0	0	0	0	1	0	-2	6
10 Central Vancouver Island	28	0	3	0	3	0	2	6	35
11 Upper Island/Central Coast	12	0	0	0	0	0	0	0	12
12 Cariboo	7	1	1	0	2	0	0	1	10
13 North West	10	0	2	0	2	0	1	3	14
14 Peace Liard	4	0	1	0	1	0	1	0	4
15 Northern Interior	14	0	2	0	2	0	0	-2	14
16 Vancouver	240	16	8	1	25	3	23	-8	237
17 Burnaby	34	2	1	0	3	0	3	3	37
18 North Shore	47	2	1	0	3	0	10	-1	39
19 Richmond	15	3	3	1	7	1	3	-1	19
20 Capital	91	0	3	0	3	2	9	1	88
TOTAL	759	39	40	3	82	13	72	0	782

¹ Membership in the BCDNA is voluntary.

² Includes all practising and non-practising BCDNA members for 1995 and registered BCDNA members for 1997. In past editions of *ROLLCALL* this table only included practising members of the BCDNA.

³ There are no new registrant RDN's with unknown place of graduation.

⁴ RDN's who reported B.C. addresses and were practising members in December 1997 and whose date of initial registration was after December 1995.

⁵ RDN's who reported B.C. addresses and were practising members in December 1997 but not in December 1995 and who were registered for the first time before December 1995.

⁶ RDN's who reported B.C. addresses and were practising members in December 1995 but not in December 1997.

NUTRITION MANAGERS

Definition: A nutrition manager (formerly food service supervisor)

...is a first-line manager constantly involved with the day-to-day operations of the food service department. A nutrition manager provides a link between management and food service personnel. S/he is trained in problem-solving and is capable of quick and accurate decisions where necessary.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Pacific Society of Nutrition Management and the Canadian Society of Nutrition Management is voluntary.

Date of Record: March 1996 and March 1998.

Sources of Data: Pacific Society of Nutrition Management (PSNM) and the Canadian Society of Nutrition Management (CSNM).

Preparation and Updating:

The table, derived from the membership lists of the PSNM and the CSNM, includes members who were British Columbia residents at the date of record. Data presented in the table are based on home address for the majority of nutrition managers. Precise percentages of home versus employment or other address are not known.

¹ Adapted from information provided by the Pacific Society of Nutrition Management.

Table 1
Nutrition Managers (PSNM & CSNM Members)¹
in British Columbia by Health Region
March 1996 and March 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ²	
	1996	1998	1996	1998	Number ³	Ratio ⁴
1 East Kootenay	6	8	0.78	1.00	*	*
2 West Kootenay - Boundary	12	7	1.51	0.86	-23.62	-24.48
3 North Okanagan	6	5	0.54	0.43	*	*
4 South Okanagan - Similkameen	10	9	0.46	0.40	-5.13	-7.04
5 Thompson	4	6	0.32	0.45	*	*
6 Fraser Valley	19	21	0.85	0.90	5.13	2.63
7 South Fraser Valley	29	41	0.56	0.75	18.90	15.73
8 Simon Fraser	23	26	0.79	0.85	6.32	3.31
9 Coast Garibaldi	4	2	0.57	0.27	*	*
10 Central Vancouver Island	16	15	0.70	0.63	-3.18	-5.28
11 Upper Island/Central Coast	6	6	0.52	0.50	*	*
12 Cariboo	0	0	0.00	0.00	*	*
13 North West	1	3	0.11	0.33	*	*
14 Peace Liard	2	2	0.32	0.31	*	*
15 Northern Interior	4	4	0.32	0.31	*	*
16 Vancouver	37	39	0.70	0.71	2.67	0.41
17 Burnaby	19	21	1.05	1.12	5.13	3.42
18 North Shore	16	10	0.93	0.57	-20.94	-21.85
19 Richmond	6	8	0.41	0.51	*	*
20 Capital	27	22	0.83	0.66	-9.73	-10.51
TOTAL	247	255	0.66	0.65	1.61	-0.59

¹ Membership in the Pacific Society of Nutrition Management (PSNM) and the Canadian Society of Nutrition Management (CSNM) is voluntary.

² A 24 month rate of change has been adjusted to an average annual figure.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

**VIII. PSYCHOLOGICAL/
SOCIAL SERVICES**

COUNSELLORS

Definition: A counsellor

...assists individuals and groups of clients to identify, understand and overcome personal problems or achieve personal objectives.

Counsellors perform some or all of the following duties:

- (a) Interview clients, prepare case histories and assess problems;
- (b) develop and implement counselling and intervention programs to assist clients in determining goals and means to attain them;
- (c) counsel clients and provide therapy;
- (d) evaluate the effectiveness of counselling programs and clients' progress in resolving identified problems and movement toward identified objectives;
- (e) follow up the results of counselling programs and clients' adjustments;
- (f) may supervise other counsellors, social service staff and assistants;
- (g) may provide public education and consultation to other professionals or groups regarding counselling services, issues and methods.¹

Governing Statute: None. Membership in the British Columbia Association of Clinical Counsellors is voluntary.

Governing Body: None. Compulsory registration and/or licensure do not exist.

Dates of Record: April 1998.

Sources of Data: British Columbia Association of Clinical Counsellors (BCACC).

Preparation and Updating:

Information reported in the tables is derived from membership data obtained from the British Columbia Association of Clinical Counsellors (BCACC) and includes counsellors who reported a British Columbia address at the date of record. The information presented in these tables is based on employment address for the majority of counsellors. Precise percentages of home versus employment or other address, however, are not known. This is further complicated by the fact that many counsellors work in private practice from their homes, so work and home addresses are identical.

The following tables by no means represent an exhaustive listing of persons self-identified as counsellors in British Columbia. Membership information was requested in 1995 and 1997 from the British Columbia Association of Clinical Counsellors (BCACC) and the British Columbia Association for Marriage and Family Therapy (BCAMFT) as both bodies require that members meet specific educational and training standards for membership. A further reason for inclusion of both groups is the minimal degree of overlap between their respective memberships (i.e., only 14 counsellors were members of both organisations in 1995). However, the BCAMFT did not supply any data in 1997, so

¹ Adapted from *National Occupational Classification 1992*, Major Group 41, No. 4153, Ottawa; Employment and Immigration Canada.

comparisons to 1995 are not possible and there are no reported analyses of change from the previous year.

Definition of Terms:

1. Counsellors

Table 1 shows the number and number per 10,000 population of registered and qualified members of the BCACC in British Columbia by Health Region. A counsellor may hold a *registered* or *qualifying* membership in the BCACC. A registered member has met both academic and full-time paid experience requirements for registration. A qualifying member has met the academic requirements, but not the two year full-time paid experience requirement for registration. Members of the BCACC who are students or retired are not included in the tables.

2. Age and Sex

Table 2 reports age and sex information for registered and qualified members of the BCACC in British Columbia. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

Table 1
Counsellors (Registered and Qualified BCACC Members)^{1,2} in British Columbia
by Health Region
April 1998

Health Region	Number	Number per 10,000 Population
1 East Kootenay	6	0.75
2 West Kootenay - Boundary	8	0.98
3 North Okanagan	15	1.30
4 South Okanagan - Similkameen	31	1.38
5 Thompson	25	1.89
6 Fraser Valley	51	2.18
7 South Fraser Valley	97	1.76
8 Simon Fraser	52	1.70
9 Coast Garibaldi	12	1.59
10 Central Vancouver Island	41	1.73
11 Upper Island/Central Coast	22	1.83
12 Cariboo	5	0.67
13 North West	4	0.44
14 Peace Liard	6	0.92
15 Northern Interior	10	0.77
16 Vancouver	205	3.72
17 Burnaby	16	0.85
18 North Shore	59	3.34
19 Richmond	13	0.83
20 Capital	130	3.92
TOTAL	808	2.06

¹ Membership in the BCACC is voluntary.

² Excludes 1 counsellor with unknown location.

Table 2
Counsellors (Registered and Qualified BCACC Members)^{1,2} in British Columbia
by Health Region by Age and Sex³
April 1998

Health Region	25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	1	0	1	2	2	0	0	0	0	0	4	2	6
2 West Kootenay - Boundary	0	0	0	0	0	4	2	1	0	0	0	1	2	6	8
3 North Okanagan	0	0	2	4	1	4	0	2	0	0	0	2	3	12	15
4 South Okanagan - Similkameen	0	0	1	6	5	9	1	3	0	1	3	2	10	21	31
5 Thompson	0	1	2	2	5	5	0	4	0	0	4	2	11	14	25
6 Fraser Valley	4	1	4	11	10	14	2	2	0	0	1	2	21	30	51
7 South Fraser Valley	2	2	9	17	15	28	2	8	1	1	6	6	35	62	97
8 Simon Fraser	1	2	5	12	3	17	3	1	1	0	3	4	16	36	52
9 Coast Garibaldi	0	0	1	4	2	1	1	3	0	0	0	0	4	8	12
10 Central Vancouver Island	0	3	0	5	4	16	3	2	0	2	2	4	9	32	41
11 Upper Island/Central Coast	0	1	1	2	4	7	4	2	0	0	0	1	9	13	22
12 Cariboo	0	0	0	1	0	1	0	2	1	0	0	0	1	4	5
13 North West	0	0	0	1	1	1	0	1	0	0	0	0	1	3	4
14 Peace Liard	0	0	0	1	0	2	0	0	1	0	2	0	3	3	6
15 Northern Interior	0	1	1	0	1	4	1	1	0	0	1	0	4	6	10
16 Vancouver	5	4	16	46	13	72	3	25	0	5	6	10	43	162	205
17 Burnaby	0	0	5	3	0	6	0	1	0	0	1	0	6	10	16
18 North Shore	0	5	3	6	7	20	4	8	0	3	1	2	15	44	59
19 Richmond	0	1	1	1	2	1	1	5	0	0	1	0	5	8	13
20 Capital	0	2	9	21	22	42	8	12	1	1	7	5	47	83	130
TOTAL	12	23	61	143	96	256	37	83	5	13	38	41	249	559	808

¹ Membership in the BCACC is voluntary.

² Excludes 1 counsellor with unknown location.

³ There are no counsellors under the age of 25 and no counsellors with missing sex information.

PSYCHOLOGISTS

Definition: A psychologist

...diagnoses psychological and emotional disorders, counsels clients, provides therapy and research, and applies theory relating to behaviour and mental processes.

Psychologists perform some or all of the following duties:

- (a) examine behaviour, diagnose psychological and emotional disorders, counsel clients, and provide therapy;
- (b) counsel individuals and groups to achieve more effective personal, social, and vocational development and adjustment;
- (c) apply psychological theory and principles regarding behaviour and mental processes such as learning, memory, perception, and language development;
- (d) formulate hypotheses and experimental designs, review literature, conduct studies, and publish research papers.¹

Governing Statute: Psychologists Act, R.S.B.C. 1996, Chapter 381; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Psychologists of British Columbia (CPBC). In order to practise as a psychologist in British Columbia, it is necessary to be registered by the CPBC. Members of the College of Psychologists of British Columbia have exclusive use of the titles: "*registered psychologist* or *psychologist* or any affix, prefix or abbreviation of the title [i.e., derivative of '*psych*'] as an occupational designation" used to secure fee for service.²

Dates of Record: December 1995 and December 1997.

Source of Data: College of Psychologists of British Columbia (CPBC).

Preparation and Updating:

The tables were prepared from registration data maintained by the CPBC and include registered psychologists who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when psychologists report employment in psychology and employment address is available. In 1995 and 1997, employment address was available for 98% of psychologists employed in psychology. Home address is used for the remainder, as well as for psychologists not employed in psychology.

¹ Adapted from *National Occupational Classification 1992*, Major Group 41, No. 4151, Ottawa: Employment and Immigration Canada.

² Psychologists Act, R.S.B.C. 1996, Chapter 381, Section 26. Queen's Printer, Victoria, British Columbia, Canada.

Definition of Terms:

1. Registration Status

Psychologists can register with the CPBC with either *practising* or *non-practising* status. Members with non-practising status may not offer psychological services to the general public, but may be employed by such institutions as School Boards or Universities. Tables 1a and 1b show the number and number per 10,000 population of psychologists by registration status, and Table 1c shows the average annual rates of change in these numbers.

2. Age and Sex

Age and sex information for psychologists, derived from the CPBC registration database, is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Employment status of practising psychologists in British Columbia is shown in Table 3. The categories used are:

- | | |
|------------------------------|-------------------|
| (a) Employed in psychology; | (c) Not employed; |
| (b) Employed in other field; | (d) Unknown. |

4. Primary Work Setting

The primary work setting of practising psychologists employed in psychology in British Columbia is reported in Table 4. The categories shown in the table are:

- | | |
|------------------------------|--------------------------|
| (a) Educational Facility; | (f) Government; |
| (i) primary/secondary | (g) Private Practice; |
| (ii) post-secondary | (h) Consulting Firm; |
| (b) Psychiatric Hospital; | (i) Correction Facility; |
| (c) General Hospital; | (j) Other; |
| (d) Rehabilitation Facility; | (k) Unknown. |
| (e) Mental Health Clinic; | |

Some of the categories represent groupings of primary work settings. When this is done, a footnote is used to list the specific responses for each category.

5. Main Psychological Activity

The main psychological activity of practising psychologists employed in British Columbia, as reported on the annual CPBC registration form, is reported in Table 5. The categories used are as follows:

- | | |
|---------------------|---------------|
| (a) Direct Service; | (d) Teaching; |
| (b) Consulting; | (e) Research; |
| (c) Administration; | (f) Unknown. |

6. Analysis of Change

Table 6 illustrates the sources of change which affected the supply of psychologists from December 1995 to December 1997.

New registrants include psychologists who were registered with the CPBC in December 1997 and who registered with the CPBC *for the first time* subsequent to December 1995. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent psychologists who were not registered in British Columbia in December 1995, but were registered in the province in December 1997, and whose date of initial registration was before December 1995. Also included as reactivations are psychologists who reported out-of-province addresses in December 1995, but who reported British Columbia addresses in December 1997.

Attrition describes psychologists who were included in the December 1995 supply but who, because of death, retirement, suspension, out-of-province relocation or non-renewal of registration were not included in the December 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of psychologists among different Health Regions. The net migration total is therefore zero.

Table 1a
Psychologists in British Columbia
by Health Region by Registration Status
December 1995 and December 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	6	6	2	2	8	8
2 West Kootenay - Boundary	10	10	1	1	11	11
3 North Okanagan	8	8	0	0	8	8
4 South Okanagan - Similkameen	20	23	1	2	21	25
5 Thompson	9	11	0	0	9	11
6 Fraser Valley	27	27	0	1	27	28
7 South Fraser Valley	60	64	3	3	63	67
8 Simon Fraser	51	48	4	4	55	52
9 Coast Garibaldi	5	8	1	0	6	8
10 Central Vancouver Island	29	32	2	1	31	33
11 Upper Island/Central Coast	13	15	1	1	14	16
12 Cariboo	4	4	0	0	4	4
13 North West	6	7	0	0	6	7
14 Peace Liard	2	3	0	0	2	3
15 Northern Interior	11	10	1	2	12	12
16 Vancouver	277	278	12	26	289	304
17 Burnaby	52	47	0	1	52	48
18 North Shore	45	43	1	10	46	53
19 Richmond	26	34	1	1	27	35
20 Capital	133	141	10	12	143	153
TOTAL	794	819	40	67	834	886

Table 1b
Psychologists in British Columbia
per 10,000 Population by Health Region by Registration Status
December 1995 and December 1997

Health Region	Practising		Non-Practising		Total	
	1995	1997	1995	1997	1995	1997
1 East Kootenay	0.78	0.75	0.26	0.25	1.04	1.00
2 West Kootenay - Boundary	1.26	1.23	0.13	0.12	1.38	1.35
3 North Okanagan	0.72	0.69	0.00	0.00	0.72	0.69
4 South Okanagan - Similkameen	0.93	1.03	0.05	0.09	0.98	1.12
5 Thompson	0.72	0.83	0.00	0.00	0.72	0.83
6 Fraser Valley	1.21	1.15	0.00	0.04	1.21	1.20
7 South Fraser Valley	1.15	1.16	0.06	0.05	1.21	1.22
8 Simon Fraser	1.76	1.57	0.14	0.13	1.90	1.70
9 Coast Garibaldi	0.71	1.06	0.14	0.00	0.86	1.06
10 Central Vancouver Island	1.28	1.35	0.09	0.04	1.36	1.39
11 Upper Island/Central Coast	1.13	1.25	0.09	0.08	1.22	1.33
12 Cariboo	0.57	0.53	0.00	0.00	0.57	0.53
13 North West	0.68	0.77	0.00	0.00	0.68	0.77
14 Peace Liard	0.32	0.46	0.00	0.00	0.32	0.46
15 Northern Interior	0.88	0.77	0.08	0.15	0.96	0.92
16 Vancouver	5.25	5.04	0.23	0.47	5.48	5.51
17 Burnaby	2.87	2.51	0.00	0.05	2.87	2.56
18 North Shore	2.61	2.43	0.06	0.57	2.66	3.00
19 Richmond	1.76	2.16	0.07	0.06	1.82	2.23
20 Capital	4.08	4.25	0.31	0.36	4.38	4.61
TOTAL	2.12	2.09	0.11	0.17	2.22	2.26

Table 1c
Average Annual Rate of Change¹: Psychologists in British Columbia
by Health Region by Registration Status
December 1995 to December 1997

Health Region	Practising		Non-Practising		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	*	*	*	*	*	*
2 West Kootenay - Boundary	0.00	-1.12	*	*	0.00	-1.12
3 North Okanagan	*	*	*	*	*	*
4 South Okanagan - Similkameen	7.24	5.08	*	*	9.11	6.91
5 Thompson	*	*	*	*	*	*
6 Fraser Valley	0.00	-2.38	*	*	1.84	-0.58
7 South Fraser Valley	3.28	0.53	*	*	3.13	0.38
8 Simon Fraser	-2.99	-5.73	*	*	-2.77	-5.52
9 Coast Garibaldi	*	*	*	*	*	*
10 Central Vancouver Island	5.05	2.76	*	*	3.18	0.93
11 Upper Island/Central Coast	7.42	5.08	*	*	6.90	4.58
12 Cariboo	*	*	*	*	*	*
13 North West	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*
15 Northern Interior	-4.65	-6.55	*	*	0.00	-1.99
16 Vancouver	0.18	-2.02	47.20	43.96	2.56	0.30
17 Burnaby	-4.93	-6.47	*	*	-3.92	-5.48
18 North Shore	-2.25	-3.36	*	*	7.34	6.11
19 Richmond	14.35	11.00	*	*	13.86	10.52
20 Capital	2.96	2.08	9.54	8.60	3.44	2.55
TOTAL	1.56	-0.63	29.42	26.63	3.07	0.84

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Psychologists¹ in British Columbia
by Health Region by Age and Sex²
December 1997

Health Region	25-34		35-44		45-54		55-64		65 +		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	1	2	0	3	1	1	0	6	2	8
2 West Kootenay - Boundary	0	0	1	0	3	5	1	1	0	0	5	6	11
3 North Okanagan	0	0	0	2	2	1	2	0	1	0	5	3	8
4 South Okanagan - Similkameen	1	1	1	3	9	2	5	1	2	0	18	7	25
5 Thompson	0	0	3	0	3	1	4	0	0	0	10	1	11
6 Fraser Valley	1	2	3	1	11	6	3	0	0	1	18	10	28
7 South Fraser Valley	0	4	9	6	16	11	18	2	1	0	44	23	67
8 Simon Fraser	1	2	6	8	17	12	3	1	0	2	27	25	52
9 Coast Garibaldi	0	0	1	0	2	2	1	0	2	0	6	2	8
10 Central Vancouver Island	0	0	2	3	11	8	3	3	3	0	19	14	33
11 Upper Island/Central Coast	0	0	1	1	3	4	5	2	0	0	9	7	16
12 Cariboo	0	0	0	0	1	1	1	1	0	0	2	2	4
13 North West	0	0	1	0	3	1	1	0	1	0	6	1	7
14 Peace Liard	0	0	0	1	1	0	1	0	0	0	2	1	3
15 Northern Interior	0	0	0	1	8	3	0	0	0	0	8	4	12
16 Vancouver	1	11	32	37	51	87	31	34	12	8	127	177	304
17 Burnaby	1	2	8	7	5	8	11	6	0	0	25	23	48
18 North Shore	0	0	2	2	13	14	12	5	3	2	30	23	53
19 Richmond	1	0	3	4	11	10	4	1	1	0	20	15	35
20 Capital	0	0	3	19	38	36	27	21	3	6	71	82	153
TOTAL	6	22	76	96	210	212	136	79	30	19	458	428	886

¹ Includes Practising and Non-Practising psychologists.

² There are no psychologists under the age of 25 and no psychologists with missing sex information.

Table 3
Practising Psychologists¹ in British Columbia
by Health Region by Employment Status²
December 1997

Health Region	Employed in Psychology	Employed in Other Field	Not Employed	Total
1 East Kootenay	5	1	0	6
2 West Kootenay - Boundary	10	0	0	10
3 North Okanagan	8	0	0	8
4 South Okanagan - Similkameen	23	0	0	23
5 Thompson	11	0	0	11
6 Fraser Valley	27	0	0	27
7 South Fraser Valley	61	2	1	64
8 Simon Fraser	46	2	0	48
9 Coast Garibaldi	8	0	0	8
10 Central Vancouver Island	31	0	1	32
11 Upper Island/Central Coast	14	0	1	15
12 Cariboo	4	0	0	4
13 North West	7	0	0	7
14 Peace Liard	2	1	0	3
15 Northern Interior	10	0	0	10
16 Vancouver	269	9	0	278
17 Burnaby	47	0	0	47
18 North Shore	38	2	3	43
19 Richmond	34	0	0	34
20 Capital	132	8	1	141
TOTAL	787	25	7	819

¹ Excludes 67 psychologists with Non-Practising status.

² There are no psychologists with unknown employment status.

Table 4
Practising Psychologists Employed in Psychology^{1,2} in British Columbia
by Health Region by Primary Work Setting
December 1997

Health Region	Educational Facility		Psychiatric Hospital	General Hospital	Rehab. Facility	Mental Health Clinic	Government ³	Private Practice	Consulting Firm	Correction Facility	Other ⁴	Unknown	Total
	Primary/Secondary	Post-Secondary											
1 East Kootenay	1	0	0	0	0	1	0	3	0	0	0	0	5
2 West Kootenay - Boundary	1	0	0	0	0	5	0	3	0	0	1	0	10
3 North Okanagan	0	0	0	0	0	0	0	8	0	0	0	0	8
4 South Okanagan - Similkameen	2	2	1	2	1	1	2	9	1	0	1	1	23
5 Thompson	2	1	0	0	0	0	2	4	0	0	2	0	11
6 Fraser Valley	2	3	2	0	1	3	0	2	1	12	0	1	27
7 South Fraser Valley	7	7	0	2	2	11	2	16	0	2	12	0	61
8 Simon Fraser	4	5	9	4	0	6	0	15	0	2	1	0	46
9 Coast Garibaldi	0	1	0	0	0	3	1	2	0	0	0	1	8
10 Central Vancouver Island	3	3	0	1	2	4	0	17	0	0	1	0	31
11 Upper Island/Central Coast	1	3	0	0	0	4	0	5	0	0	1	0	14
12 Cariboo	1	0	0	0	0	1	0	1	1	0	0	0	4
13 North West	1	0	0	1	0	1	0	2	1	0	1	0	7
14 Peace Liard	1	0	0	0	0	0	0	0	0	0	1	0	2
15 Northern Interior	0	5	0	1	0	1	1	1	0	1	0	0	10
16 Vancouver	17	31	5	41	20	5	7	98	16	3	24	2	269
17 Burnaby	5	21	2	0	0	6	2	3	1	1	6	0	47
18 North Shore	3	4	1	1	0	7	1	13	2	1	3	2	38
19 Richmond	3	3	0	0	13	0	6	5	0	0	3	1	34
20 Capital	9	23	8	2	6	12	13	47	4	3	3	2	132
TOTAL	63	112	28	55	45	71	37	254	27	25	60	10	787

¹ Excludes 67 psychologists with Non-Practising status.

² Excludes 25 psychologists who are employed in other fields, and 7 who are not employed.

³ Includes 4 psychologists who indicated "Federal Government" as their primary work setting, 30 who indicated "Provincial Government" and 3 who indicated "Municipal Government".

⁴ Includes 6 psychologists who indicated "Child Development Centre" as their primary work setting, 5 who indicated "Addiction Treatment Centre", 16 who indicated "Industrial/Commercial Firm", 17 who indicated "Social Agency" and 16 who indicated "Other".

Table 5
Practising Psychologists Employed in Psychology^{1,2} in British Columbia
by Health Region by Main Psychological Activity
December 1997

Health Region	Direct Service	Consulting	Admin- istration	Teaching	Research	Unknown	Total
1 East Kootenay	4	1	0	0	0	0	5
2 West Kootenay - Boundary	8	1	1	0	0	0	10
3 North Okanagan	7	1	0	0	0	0	8
4 South Okanagan - Similkameen	18	3	1	1	0	0	23
5 Thompson	7	3	0	1	0	0	11
6 Fraser Valley	20	5	0	2	0	0	27
7 South Fraser Valley	47	4	7	3	0	0	61
8 Simon Fraser	35	4	2	3	2	0	46
9 Coast Garibaldi	5	2	1	0	0	0	8
10 Central Vancouver Island	23	4	1	3	0	0	31
11 Upper Island/Central Coast	11	1	1	1	0	0	14
12 Cariboo	4	0	0	0	0	0	4
13 North West	6	0	0	1	0	0	7
14 Peace Liard	1	0	1	0	0	0	2
15 Northern Interior	4	2	1	3	0	0	10
16 Vancouver	206	28	9	12	14	0	269
17 Burnaby	31	5	0	7	4	0	47
18 North Shore	32	3	0	3	0	0	38
19 Richmond	22	8	2	2	0	0	34
20 Capital	97	14	6	11	3	1	132
TOTAL	588	89	33	53	23	1	787

¹ Excludes 67 psychologists with Non-Practising status.

² Excludes 25 psychologists who are employed in other fields, and 7 who are not employed.

Table 6
Analysis of Change in the Number of Psychologists¹ in British Columbia
by Health Region
December 1995 to December 1997

Health Region	December 1995	New Registrants ^{2,3} by Place of Graduation				Reactivation ⁴	Attrition ⁵	Net Intra-provincial Migration	December 1997
		B.C.	Other Canada	Other Country	Subtotal				
1 East Kootenay	8	0	0	0	0	0	0	0	8
2 West Kootenay - Boundary	11	0	0	0	0	0	0	0	11
3 North Okanagan	8	0	0	0	0	0	0	0	8
4 South Okanagan - Similkameen	21	0	3	1	4	0	1	1	25
5 Thompson	9	1	0	0	1	0	0	1	11
6 Fraser Valley	27	2	4	1	7	0	4	-2	28
7 South Fraser Valley	63	3	1	2	6	1	4	1	67
8 Simon Fraser	55	4	1	1	6	0	1	-8	52
9 Coast Garibaldi	6	0	0	1	1	0	0	1	8
10 Central Vancouver Island	31	0	0	1	1	1	2	2	33
11 Upper Island/Central Coast	14	0	0	0	0	0	1	3	16
12 Cariboo	4	0	0	0	0	0	0	0	4
13 North West	6	1	0	0	1	0	0	0	7
14 Peace Liard	2	0	1	0	1	0	0	0	3
15 Northern Interior	12	0	1	0	1	0	0	-1	12
16 Vancouver	289	17	5	7	29	3	14	-3	304
17 Burnaby	52	1	1	2	4	0	5	-3	48
18 North Shore	46	1	0	1	2	2	1	4	53
19 Richmond	27	3	0	0	3	0	1	6	35
20 Capital	143	4	5	5	14	4	6	-2	153
TOTAL	834	37	22	22	81	11	40	0	886

¹ Includes Practising and Non-Practising psychologists.

² Psychologists who reported B.C. addresses and were registered in December 1997 and whose date of initial registration was after December 1995.

³ There are no new registrant psychologists with unknown place of graduation.

⁴ Psychologists who reported B.C. addresses and were registered in December 1997 but not in December 1995 and who registered for the first time before December 1995.

⁵ Psychologists who reported B.C. addresses and were registered in December 1995 but not in December 1997.

IX. REHABILITATION SERVICES

AUDIOLOGISTS AND SPEECH/LANGUAGE PATHOLOGISTS

Definition: (I) An audiologist

...diagnoses, evaluates, and treats hearing disorders.

Audiologists perform some or all of the following duties:

- (a) administer audiometric tests to diagnose and evaluate the degree and type of hearing impairment;
- (b) plan and implement rehabilitation programs for patients, including selection and fitting of hearing aids, speech (lip) reading, and counselling;
- (c) consult with physicians, nurses, psychologists, and other health care personnel to help plan treatment programs;
- (d) conduct research related to hearing;
- (e) instruct audiology students and other health care personnel in audiology.

(II) A speech/language pathologist

...diagnoses, evaluates and treats speech, language, and voice disorders.

Speech/language pathologists perform some or all of the following duties:

- (a) administer tests and observe patients to diagnose and evaluate speech, language, and voice disorders;
- (b) plan and implement remedial programs to correct speech, language, and voice disorders;
- (c) consult with physicians, nurses, psychologists, and other health care personnel to help plan treatment programs;
- (d) conduct research on speech and other communication disorders and on the development and design of diagnostic procedures and devices.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the British Columbia Association of Speech/Language Pathologists and Audiologists is voluntary. However, registered members have exclusive use of the titles: *Registered Speech/Language Pathologist, Registered Speech/Language Therapist, Speech Therapist, Voice Therapist, Communication Disorder Specialist, Audiologist.*

Date of Record: May 1998.

Source of Data: British Columbia Association of Speech/Language Pathologists and Audiologists (BCASLPA).

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3141, Ottawa: Employment and Immigration Canada.

Preparation and Updating:

The tables, derived solely from the membership list supplied by the BCASLPA, include *Full* and *Life* Members with a British Columbia address at the date of record. The data in the table are presented based on home address in 1998 for the majority of members. *ROLLCALL 95* reported BCASLPA members by employment address, so comparison with 1995 figures is of limited value and has not been presented.

Data on area of training in either audiology or speech/language pathology were not available from the BCASLPA this year. As a result the former Table 2 is not presented.

Definition of Terms:

Full members are audiologists and speech/language pathologists in good standing whose number of credit hours in designated areas of study correspond to the criteria specified by the BCASLPA bylaws and who may or may not be employed in the field.

Life members are full members who have been recognised for long-term employment in audiology and/or speech/language pathology and who may or may not be employed in the field. They must be sixty years of age or older and have held full membership with the BCASLPA for ten years or more.²

1. Audiologists and Speech/Language Pathologists

Table 1 shows number and number per 10,000 population by health region of full and life members of the BCASLPA.

2. Employment Setting

Table 2 displays employment setting as reported on the registration renewal form. The following categories are used:

- (a) School Districts;
- (b) Health Institutions (including Hospitals, Rehabilitation Centres and Health Clinics);
- (c) Private Practice;
- (d) Other;
- (e) Not Applicable.

² Adapted from information provided by the British Columbia Association of Speech/Language Pathologists and Audiologists.

Table 1
Audiologists & Speech/Language Pathologists (BCASLPA Full & Life Members)¹
in British Columbia by Health Region
May 1998

Health Region	Number	Number per 10,000 Population
1 East Kootenay	12	1.51
2 West Kootenay - Boundary	7	0.86
3 North Okanagan	19	1.64
4 South Okanagan - Similkameen	22	0.98
5 Thompson	15	1.14
6 Fraser Valley	24	1.03
7 South Fraser Valley	52	0.95
8 Simon Fraser	32	1.04
9 Coast Garibaldi	7	0.93
10 Central Vancouver Island	28	1.18
11 Upper Island/Central Coast	11	0.92
12 Cariboo	7	0.94
13 North West	9	0.99
14 Peace Liard	5	0.77
15 Northern Interior	10	0.77
16 Vancouver	111	2.01
17 Burnaby	11	0.59
18 North Shore	38	2.15
19 Richmond	18	1.15
20 Capital	54	1.63
TOTAL	492	1.25

¹ Membership in the B.C. Association of Speech/Language Pathologists and Audiologists (BCASLPA) is voluntary.

Table 2
Audiologists & Speech/Language Pathologists (BCASLPA Full & Life Members)¹
in British Columbia by Health Region by Employment Setting
May 1998

Health Region	School Districts	Health Institutions ²	Private Practice	Other ³	Not Applicable ⁴	Total
1 East Kootenay	7	2	2	0	1	12
2 West Kootenay - Boundary	3	1	2	0	1	7
3 North Okanagan	10	0	4	4	1	19
4 South Okanagan - Similkameen	6	8	7	0	1	22
5 Thompson	6	3	3	1	2	15
6 Fraser Valley	9	4	8	3	0	24
7 South Fraser Valley	13	14	9	13	3	52
8 Simon Fraser	8	12	5	6	1	32
9 Coast Garibaldi	4	1	1	0	1	7
10 Central Vancouver Island	12	4	5	4	3	28
11 Upper Island/Central Coast	5	2	4	0	0	11
12 Cariboo	4	1	1	0	1	7
13 North West	3	5	1	0	0	9
14 Peace Liard	2	3	0	0	0	5
15 Northern Interior	4	4	1	1	0	10
16 Vancouver	18	36	24	26	7	111
17 Burnaby	4	5	2	0	0	11
18 North Shore	8	8	10	6	6	38
19 Richmond	7	6	1	4	0	18
20 Capital	14	18	12	6	4	54
TOTAL	147	137	102	74	32	492

¹ Membership in the B.C. Association of Speech/Language Pathologists and Audiologists (BCASLPA) is voluntary.

² Includes hospitals, rehabilitation centres and health clinics.

³ Includes U.B.C., B.C. Ministry of Health, B.C. Ministry of Education, and members employed in more than one setting.

⁴ Includes members who are not employed and members who did not indicate their employment setting.

MASSAGE THERAPISTS

Definition: A massage therapist (formerly a massage practitioner)

...provides assessment, treatment and prevention of soft tissue and joint disorders, dysfunction or injury using treatment methods which include (but are not limited to) manual techniques, hydrotherapy, light therapy, electrical modalities, therapeutic exercise and patient education to rehabilitate, relieve pain and promote overall health.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Massage Therapists of British Columbia (CMTBC). It is necessary to be registered with the CMTBC in order to practise as a massage therapist in this province. Registered Massage Therapists have exclusive use of the titles: *massage therapist*, *registered massage therapist*, *massage practitioner*, and *registered massage practitioner*.

Date of Record: December 1995 and December 1997.

Source of Data: College of Massage Therapists of British Columbia (CMTBC).

Preparation and Updating:

The tables, prepared from registration data maintained by the CMTBC, reflect members who reported a British Columbia address at the date of record. The data in the tables are presented based on employment address when the registration status is *full registrant*, when employment in massage therapy is reported, and when employment address is available. In 1995 and 1997, employment address was available for 92% and 94% of full registrant massage therapists employed in massage therapy, respectively. Home address is used for the remainder, as well as for those who are not employed in massage therapy.

Definition of Terms:

1. Registration Status

Full registrants are massage therapists who have passed registration examinations and are qualified to practise in massage therapy in British Columbia. *Inactive registrants* are members of the CMTBC who are not currently practising massage therapy in British Columbia. Beginning in 1995, registrants who become inactive are required to pay an annual fee to maintain inactive status.¹

Table 1 reports the number of massage therapists (MT's) who are full registrants with the CMTBC, the number of full registrant massage therapists per 10,000 population in the province, and the average annual rates of change in these figures. The table does not include inactive registrants as inactive

¹ Adapted from information provided by the College of Massage Therapists of British Columbia.

registrants were not required to register each year prior to 1995, so that the count of their numbers is not necessarily accurate.

2. Age and Sex

Age and sex information for massage therapists who are full registrants with the CMTBC is presented in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Employment status for full registrants is reported in Table 3. This information is derived from the CMTBC registration renewal form. The following categories are used:

- | | |
|----------------------------------|--------------------------------|
| (a) Employed in Massage Therapy; | (b) Employed in Other Field; |
| (i) Permanent Full-Time | (c) Not Employed; |
| (ii) Permanent Part-Time | (d) Employment Status Unknown. |
| (iii) Casual/Locum | |
| (iv) Unknown | |

4. Principal Employing Institution

Table 4 displays type of principal employing institution as reported by full registrants employed in massage therapy on the CMTBC registration renewal form. The categories shown in the table are:

- | | |
|---|------------------------------|
| (a) Private Practice/Solo; | (d) Office/Clinic; |
| (b) Private Practice/Group or Clinic; | (e) Educational Institution; |
| (c) Fitness Centre/Private Club/
Hotel/Spa/Resort; | (f) Other; |
| | (g) Unknown. |

Some categories represent groupings of principal employers where numbers are small. When this is done, a footnote appears in Table 4 to define how many MT's reported in each specific category.

5. Principal Type of Position

Table 5 presents data pertaining to the principal type of position as derived from the registration renewal form. Only the first position is reported where more than one was indicated. The categories shown in the table are:

- | | |
|-------------------------------------|---------------------------------|
| (a) Staff Therapist; | (e) Associate-Private Practice; |
| (b) Sole Charge; | (f) Instructor/Education; |
| (c) Director/Assistant Director; | (g) Other; |
| (d) Owner/Partner-Private Practice; | (h) Unknown. |

Some categories represent groupings of principal type of position where numbers are small. When this is done, a footnote appears in Table 5 to define how many MT's reported in each specific category.

6. Patient/Non-Patient Care Activities

The information reported by Tables 6 and 7 are separate to distinguish between patient and non-patient care activities. This information was derived from separate questions on the registration renewal form.

The range of patient care activities listed in Table 6 are:

- (a) Not Applicable;
- (b) Palliative Care;
- (c) Prevention/Health Promotion;
- (d) Sports Medicine;
- (e) Short-Term Rehabilitation;
- (f) Long-Term Rehabilitation;
- (g) Stress Management;
- (h) Relaxation Therapy;
- (i) General;
- (j) Other;
- (k) Unknown.

The range of non-patient care activities listed in Table 7 are:

- (a) Not Applicable;
- (b) Administration;
- (c) Teaching;
- (d) Consulting;
- (e) Research;
- (f) Other;
- (g) Unknown.

Some categories in Table 7 represent groupings of non-patient care activities where numbers are small. When this is done, a footnote appears in the table to define how many MT's reported in each specific category.

7. Analysis of Change

Table 8 reports sources of change from December 1995 to December 1997 which affected the supply of full-registrant MT's.

New registrants include massage therapists who were full registrants in the CMTBC as of December 1997 and who registered in the CMTBC *for the first time* subsequent to December 1995. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent massage therapists who were not full registrants in the CMTBC in December 1995, but were full registrants in December 1997, and whose date of initial registration was before December 1995. Also included as reactivations are massage therapists who were full registrants and reported out-of-province addresses in December 1995, but who reported British Columbia addresses in December 1997.

Attrition describes massage therapists who were full registrants in the CMTBC and were included in the December 1995 supply, but who, because of death, retirement, out-of-province relocation, or non-renewal of full registration, were not included in the December 1997 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of massage therapists who were full registrants in the CMTBC among different Health Regions. The net migration total is therefore zero.

Table 1
Massage Therapists (Full Registrants) in British Columbia
by Health Region
December 1995 and December 1997

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ¹	
	1995	1997	1995	1997	Number ²	Ratio ³
1 East Kootenay	18	21	2.35	2.64	8.01	6.00
2 West Kootenay - Boundary	37	38	4.65	4.67	1.34	0.21
3 North Okanagan	22	44	1.99	3.81	41.42	38.19
4 South Okanagan - Similkameen	53	68	2.46	3.03	13.27	10.99
5 Thompson	25	31	1.99	2.35	11.36	8.56
6 Fraser Valley	27	35	1.21	1.50	13.86	11.15
7 South Fraser Valley	72	104	1.38	1.89	20.19	16.98
8 Simon Fraser	37	72	1.28	2.35	39.50	35.55
9 Coast Garibaldi	41	49	5.86	6.51	9.32	5.41
10 Central Vancouver Island	43	55	1.89	2.32	13.10	10.64
11 Upper Island/Central Coast	28	35	2.44	2.91	11.80	9.38
12 Cariboo	10	13	1.43	1.74	14.02	10.41
13 North West	13	12	1.48	1.32	-3.92	-5.55
14 Peace Liard	5	6	0.80	0.92	*	*
15 Northern Interior	7	9	0.56	0.69	*	*
16 Vancouver	257	310	4.87	5.62	9.83	7.41
17 Burnaby	27	39	1.49	2.08	20.19	18.23
18 North Shore	73	87	4.23	4.92	9.17	7.92
19 Richmond	20	25	1.35	1.59	11.80	8.53
20 Capital	122	132	3.74	3.98	4.02	3.12
TOTAL	937	1,185	2.50	3.02	12.46	10.03

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Massage Therapists (Full Registrants) in British Columbia
by Health Region by Age and Sex¹
December 1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	2	2	6	2	7	1	0	0	1	0	0	0	0	5	16	21
2 West Kootenay - Boundary	0	0	6	8	7	8	2	5	1	0	0	0	0	1	16	22	38
3 North Okanagan	1	1	4	14	4	11	4	4	0	1	0	0	0	0	13	31	44
4 South Okanagan - Similkameen	0	1	9	10	9	17	8	11	1	1	1	0	0	0	28	40	68
5 Thompson	0	1	2	14	2	5	1	1	0	3	2	0	0	0	7	24	31
6 Fraser Valley	1	1	4	7	5	8	3	3	1	1	1	0	0	0	15	20	35
7 South Fraser Valley	3	8	16	32	7	23	3	11	0	0	0	0	0	1	29	75	104
8 Simon Fraser	0	4	10	31	3	11	2	7	0	2	0	0	0	2	15	57	72
9 Coast Garibaldi	0	0	6	18	2	16	2	5	0	0	0	0	0	0	10	39	49
10 Central Vancouver Island	0	1	4	14	5	23	3	5	0	0	0	0	0	0	12	43	55
11 Upper Island/Central Coast	0	1	1	9	3	10	0	7	0	3	0	1	0	0	4	31	35
12 Cariboo	0	0	1	5	2	3	0	1	0	1	0	0	0	0	3	10	13
13 North West	0	0	0	4	0	1	2	4	0	0	0	1	0	0	2	10	12
14 Peace Liard	0	1	1	1	0	2	0	0	0	1	0	0	0	0	1	5	6
15 Northern Interior	0	0	0	3	2	2	0	2	0	0	0	0	0	0	2	7	9
16 Vancouver	3	11	33	96	38	63	12	42	3	6	2	0	0	1	91	219	310
17 Burnaby	1	2	6	8	6	8	3	4	0	1	0	0	0	0	16	23	39
18 North Shore	2	3	8	24	8	24	1	12	1	3	1	0	0	0	21	66	87
19 Richmond	0	0	5	9	2	4	3	1	0	1	0	0	0	0	10	15	25
20 Capital	1	3	4	20	12	41	11	32	5	0	1	0	0	2	34	98	132
TOTAL	12	40	122	333	119	287	61	157	12	25	8	2	0	7	334	851	1,185

¹ There are no MT's with missing sex information.

Table 3
Massage Therapists (Full Registrants) in British Columbia
by Health Region by Employment Status¹
December 1997

Health Region	Employed as a Massage Therapist					Employment Status		Total
	Permanent Full-Time	Permanent Part-Time	Casual/Locum	Unknown	Subtotal	Employed in Other Field	Unknown	
1 East Kootenay	8	8	2	1	19	0	2	21
2 West Kootenay - Boundary	13	17	1	0	31	0	7	38
3 North Okanagan	13	16	0	0	29	0	15	44
4 South Okanagan - Similkameen	40	16	1	2	59	0	9	68
5 Thompson	9	12	2	2	25	0	6	31
6 Fraser Valley	19	6	0	3	28	0	7	35
7 South Fraser Valley	39	23	1	5	68	0	36	104
8 Simon Fraser	34	18	0	1	53	0	19	72
9 Coast Garibaldi	15	17	2	4	38	3	8	49
10 Central Vancouver Island	20	19	2	4	45	0	10	55
11 Upper Island/Central Coast	8	16	1	2	27	0	8	35
12 Cariboo	3	7	0	1	11	1	1	13
13 North West	4	6	0	0	10	1	1	12
14 Peace Liard	2	2	0	0	4	0	2	6
15 Northern Interior	5	1	0	0	6	0	3	9
16 Vancouver	93	107	9	15	224	4	82	310
17 Burnaby	21	8	1	1	31	0	8	39
18 North Shore	22	40	2	5	69	0	18	87
19 Richmond	6	12	0	0	18	0	7	25
20 Capital	44	59	2	5	110	4	18	132
TOTAL	418	410	26	51	905	13	267	1,185

¹ Please note the employment status category "Not Employed" is not shown in the table as there were no MT's in this category in 1997.

Table 4
Massage Therapists (Full Registrants) Employed in Massage Therapy¹ in British Columbia
by Health Region by Principal Employing Institution
December 1997

Health Region	Private Practice/ Solo	Private Practice/ Group or Clinic	Fitness Centre/ Private Club/ Hotel/Spa/ Resort ²	Office/ Clinic ³	Educational Institution	Other ⁴	Unknown	Total
1 East Kootenay	15	3	1	0	0	0	0	19
2 West Kootenay - Boundary	20	11	0	0	0	0	0	31
3 North Okanagan	13	13	0	0	3	0	0	29
4 South Okanagan - Similkameen	30	24	1	1	0	0	3	59
5 Thompson	11	9	3	0	0	0	2	25
6 Fraser Valley	14	8	1	0	1	1	3	28
7 South Fraser Valley	16	38	1	8	1	2	2	68
8 Simon Fraser	7	41	0	3	0	1	1	53
9 Coast Garibaldi	14	15	3	1	0	2	3	38
10 Central Vancouver Island	25	14	0	2	0	1	3	45
11 Upper Island/Central Coast	16	10	0	0	0	0	1	27
12 Cariboo	7	1	1	1	0	1	0	11
13 North West	4	5	0	0	0	1	0	10
14 Peace Liard	2	2	0	0	0	0	0	4
15 Northern Interior	5	1	0	0	0	0	0	6
16 Vancouver	56	120	4	7	11	7	19	224
17 Burnaby	7	22	0	0	0	1	1	31
18 North Shore	22	32	3	5	0	2	5	69
19 Richmond	0	16	0	0	0	0	2	18
20 Capital	59	36	1	7	0	2	5	110
TOTAL	343	421	19	35	16	21	50	905

¹ Excludes 13 MT's who are employed in other fields and 267 who did not indicate their employment status.

² Includes 4 MT's who indicated "Fitness Centre/Private Club" as their principal employer and 15 who indicated "Hotel/Spa/Resort".

³ Includes 3 MT's who indicated "Sports Medicine Clinic" as their principal employer, 26 who indicated "Chiropractic Office", 4 who indicated "Naturopathic Office" and 2 who indicated "Pain Clinic".

⁴ Includes 1 MT who indicated "General Hospital" as his/her principal employer, 1 who indicated "Community Health Agency" and 19 who indicated "Other".

Table 5
Massage Therapists (Full Registrants) Employed in Massage Therapy¹ in British Columbia
by Health Region by Principal Type of Position²
December 1997

Health Region	Staff Therapist	Sole Charge	Director/ Assistant Director ³	Owner/ Partner- Private Practice	Associate- Private Practice	Instructor/ Education	Other ⁴	Unknown	Total
1 East Kootenay	5	3	0	11	0	0	0	0	19
2 West Kootenay - Boundary	2	11	0	14	4	0	0	0	31
3 North Okanagan	2	10	1	10	2	3	0	1	29
4 South Okanagan - Similkameen	6	14	0	29	7	0	0	3	59
5 Thompson	9	3	0	8	3	0	0	2	25
6 Fraser Valley	2	9	1	11	2	0	0	3	28
7 South Fraser Valley	6	12	0	33	12	1	0	4	68
8 Simon Fraser	6	2	1	20	20	0	1	3	53
9 Coast Garibaldi	9	5	1	14	6	0	0	3	38
10 Central Vancouver Island	6	8	0	20	7	0	0	4	45
11 Upper Island/Central Coast	4	7	0	12	2	0	0	2	27
12 Cariboo	0	4	0	5	1	0	1	0	11
13 North West	1	2	0	4	2	0	1	0	10
14 Peace Liard	1	2	0	1	0	0	0	0	4
15 Northern Interior	1	2	0	3	0	0	0	0	6
16 Vancouver	51	26	4	58	53	7	4	21	224
17 Burnaby	4	4	0	13	7	0	0	3	31
18 North Shore	17	9	0	24	12	0	2	5	69
19 Richmond	2	2	0	8	5	0	0	1	18
20 Capital	7	29	1	56	8	0	1	8	110
TOTAL	141	164	9	354	153	11	10	63	905

¹ Excludes 13 MT's who are employed in other fields and 267 who did not indicate their employment status.

² Please note the category "Program Coordinator" is not shown in the table as there were no MT's who indicated this category in 1997.

³ Includes 7 MT's who indicated "Director" as their principal employment position and 2 who indicated "Assistant Director".

⁴ Includes 3 MT's who indicated "Consultant" as their principal employment position and 7 who indicated "Other".

Table 6
Massage Therapists (Full Registrants) Employed in Massage Therapy¹ in British Columbia
by Health Region by Principal Patient Care Activity
December 1997

Health Region	Not Applicable	Palliative Care	Prevention/ Health Promotion	Sports Medicine	Short-term Rehab. (eg. post-MVA)	Long-term Rehab. (eg. arthritis/ chronic back problems)	Stress Management	Relaxation Therapy	General	Other	Unknown	Total
1 East Kootenay	1	0	1	0	5	4	0	0	7	1	0	19
2 West Kootenay - Boundary	2	0	1	1	5	4	3	0	15	0	0	31
3 North Okanagan	2	0	2	0	5	3	0	0	15	2	0	29
4 South Okanagan - Similkameen	1	2	2	0	12	12	1	0	26	1	2	59
5 Thompson	0	0	2	1	6	4	0	0	10	0	2	25
6 Fraser Valley	1	0	0	1	7	5	0	0	9	2	3	28
7 South Fraser Valley	1	0	6	2	27	13	0	1	16	0	2	68
8 Simon Fraser	1	0	4	0	21	7	1	1	18	0	0	53
9 Coast Garibaldi	0	0	7	1	7	2	1	2	11	2	5	38
10 Central Vancouver Island	0	0	4	0	8	8	0	1	21	0	3	45
11 Upper Island/Central Coast	0	0	1	0	4	5	0	0	17	0	0	27
12 Cariboo	2	0	1	0	1	1	0	0	6	0	0	11
13 North West	1	0	1	0	0	1	1	0	6	0	0	10
14 Peace Liard	0	0	1	0	1	0	0	0	2	0	0	4
15 Northern Interior	0	0	0	0	2	1	0	0	3	0	0	6
16 Vancouver	4	1	16	4	55	40	1	1	80	4	18	224
17 Burnaby	2	0	2	0	16	2	0	0	7	1	1	31
18 North Shore	0	0	3	0	15	10	1	2	36	1	1	69
19 Richmond	0	1	1	0	4	1	0	0	10	0	1	18
20 Capital	1	2	13	2	17	18	1	0	51	2	3	110
TOTAL	19	6	68	12	218	141	10	8	366	16	41	905

¹ Excludes 13 MT's who are employed in other fields and 267 who did not indicate their employment status.

Table 7
Massage Therapists (Full Registrants) Employed in Massage Therapy¹ in British Columbia
by Health Region by Principal Non-Patient Care Activity
December 1997

Health Region	Not Applicable	Admin- istration	Teaching	Consulting	Research	Other ²	Unknown	Total
1 East Kootenay	10	3	2	2	0	1	1	19
2 West Kootenay - Boundary	22	6	1	0	1	0	1	31
3 North Okanagan	11	8	7	1	2	0	0	29
4 South Okanagan - Similkameen	38	11	5	1	1	0	3	59
5 Thompson	12	7	2	0	1	1	2	25
6 Fraser Valley	15	4	5	0	0	1	3	28
7 South Fraser Valley	36	24	4	1	1	0	2	68
8 Simon Fraser	31	15	4	1	0	1	1	53
9 Coast Garibaldi	18	12	2	1	0	1	4	38
10 Central Vancouver Island	29	9	2	0	0	1	4	45
11 Upper Island/Central Coast	12	10	3	0	0	0	2	27
12 Cariboo	8	2	0	0	1	0	0	11
13 North West	8	0	1	1	0	0	0	10
14 Peace Liard	3	0	0	0	0	1	0	4
15 Northern Interior	4	1	0	0	0	1	0	6
16 Vancouver	127	53	14	2	3	3	22	224
17 Burnaby	16	8	5	1	0	0	1	31
18 North Shore	43	19	2	1	0	2	2	69
19 Richmond	14	3	0	0	0	0	1	18
20 Capital	66	25	8	0	1	5	5	110
TOTAL	523	220	67	12	11	18	54	905

¹ Excludes 13 MT's who are employed in other fields and 267 who did not indicate their employment status.

² Includes 5 MT's who indicated "Sales" as their principal non-patient care activity and 13 who indicated "Other".

Table 8
Analysis of Change in the Number of Massage Therapists (Full Registrants) in British Columbia
by Health Region
December 1995 to December 1997

Health Region	December 1995	New Registrants ¹ by Place of Graduation					Reactivation ²	Attrition ³	Net Intra-provincial Migration	December 1997
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	18	2	0	0	0	2	0	0	1	21
2 West Kootenay - Boundary	37	3	2	0	0	5	2	8	2	38
3 North Okanagan	22	19	0	0	0	19	0	1	4	44
4 South Okanagan - Similkameen	53	10	2	0	0	12	0	0	3	68
5 Thompson	25	9	1	0	0	10	0	2	-2	31
6 Fraser Valley	27	6	1	1	0	8	0	1	1	35
7 South Fraser Valley	72	36	4	0	1	41	2	7	-4	104
8 Simon Fraser	37	29	2	0	0	31	1	2	5	72
9 Coast Garibaldi	41	6	0	0	0	6	5	3	0	49
10 Central Vancouver Island	43	8	4	0	0	12	2	5	3	55
11 Upper Island/Central Coast	28	7	0	0	0	7	1	4	3	35
12 Cariboo	10	2	1	0	0	3	0	0	0	13
13 North West	13	1	0	0	0	1	0	3	1	12
14 Peace Liard	5	2	0	0	0	2	0	1	0	6
15 Northern Interior	7	4	0	0	0	4	0	1	-1	9
16 Vancouver	257	80	3	1	1	85	7	22	-17	310
17 Burnaby	27	9	0	0	0	9	0	2	5	39
18 North Shore	73	18	2	0	0	20	0	6	0	87
19 Richmond	20	9	0	0	0	9	0	1	-3	25
20 Capital	122	11	7	0	0	18	5	12	-1	132
TOTAL	937	271	29	2	2	304	25	81	0	1,185

¹ MT's who reported B.C. addresses and were full registrants in December 1997 and whose date of initial registration was after December 1995.

² MT's who reported B.C. addresses and were full registrants in December 1997 but not in December 1995 and who were registered for the first time before December 1995.

³ MT's who reported B.C. addresses and were full registrants in December 1995 but not in December 1997.

OCCUPATIONAL THERAPISTS

Definition: An occupational therapist

...plans and carries out individually designed programs of activity for patients with physical or mental health problems to enhance their ability to care for themselves and to engage in work and recreational pursuits.

Occupational therapists perform some or all of the following duties:

- (a) observe patients and consult physicians' prognoses to assess patients' emotional and physical capacities;
- (b) develop treatment programs which may include manual and creative arts, industrial and vocational skills and recreational activities;
- (c) implement the treatment programs and evaluate their progress;
- (d) maintain clinical and statistical records;
- (e) advise on health risks in the workplace or participate in other programs, such as pre-retirement programs, to prevent physical or mental health problems;
- (f) conduct research in occupational therapy;
- (g) act as an occupational therapy consultant or educator.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the British Columbia Society of Occupational Therapists (BCSOT) is voluntary. However, registered members of the BCSOT have exclusive use of the titles: *Registered Occupational Therapist, (BC)* and *Registered OT, (BC)*. Occupational therapists who have graduated from a dual program in occupational therapy and physiotherapy may be registered with the College of Physical Therapists of British Columbia.

Dates of Record: December 1995 and March 1998.

Source of Data: British Columbia Society of Occupational Therapists (BCSOT).

Preparation and Updating:

The tables, prepared from registration data maintained by the BCSOT, include BCSOT members who reported a British Columbia address at the date of record. Occupational therapists (OT's) who are also registered with the College of Physical Therapists of British Columbia (CPTBC) are included in both the occupational therapy and physical therapy sections of *ROLLCALL 97*. The exact number of personnel who are both members of the BCSOT and registered with the CPTBC is not known so the extent of double-counting of personnel in these two groups can not be determined.

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3143, Ottawa: Employment and Immigration Canada.

The data in the tables are presented based on employment address when the membership status is *registered* or *provisional*, when employment in occupational therapy is reported, and when employment address is available. In 1995 and 1997, employment address was available for 93% and 90% of registered or provisional OT's employed in occupational therapy, respectively. Home address is used for the remainder, as well as for OT's with registered or provisional status who are not employed in occupational therapy, and for OT's with non-practising membership status.

Definition of Terms:

1. Membership Status

OT's may hold a practising membership in the BCSOT and be registered as *full-time*, *part-time* or *provisional* members, or hold a *non-practising* membership in the BCSOT. OT's who register as provisional generally have met the educational and competency requirements of full-time or part-time membership, but have not completed the national certification exam of the Canadian Association of Occupational Therapists. Table 1a reports OT's who were members of the BCSOT at the dates of record using the following membership categories:

- (a) Registered - Full-Time;
- (b) Registered - Part-Time;
- (c) Provisional;
- (d) Non-Practising.

Table 1b reports the number of OT's per 10,000 population by their membership status. Average annual rates of change are shown in Table 1c.

2. Age and Sex

Age and sex information for OT's who were members of the BCSOT is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

The number of BCSOT members with unknown age has increased substantially since 1995. Most of these members are new members to the BCSOT; approximately 94% of the members with unknown age have registered for the first time with the BCSOT since 1995.

3. Employment Status

Table 3 displays the employment status of registered and provisional members of the BCSOT, as reported on the registration renewal form. The following categories are used:

- | | |
|---------------------------------------|------------------------------|
| (a) Employed in Occupational Therapy; | (b) Employed in Other Field; |
| (i) Full-Time | (c) Not Employed; |
| (ii) Part-Time | (d) On Leave; |
| (iii) Casual/Locum | (e) Other/Unknown. |
| (iv) Unknown | |

4. Principal Employer

Type of principal employer, as reported by registered and provisional members of the BCSOT who were employed in occupational therapy, is presented in Table 4. The categories shown in the table are:

- | | |
|-------------------------------------|---|
| (a) Acute Care Hospital; | (g) Children's Treatment/Outpatient Centre; |
| (b) Paediatric Hospital; | (h) Workers' Compensation Board; |
| (c) Rehabilitation Hospital; | (i) Voluntary/Non-Profit Agency; |
| (d) Psychiatric Hospital; | (j) School Board/University/College; |
| (e) Long Term Care; | (k) Private Practice; |
| (f) Public Community Health Agency; | (l) Other/Unknown. |

Some categories represent groupings of principal employers where numbers are small. When this is done, a footnote appears in Table 4 to define how many OT's reported in each specific category.

5. Principal Area of Service

Principal area of service, as reported by registered and provisional members of the BCSOT employed in occupational therapy, is presented in Table 5. The categories shown in the table are:

- | | |
|--------------------------------|--------------------------------|
| (a) Acute Care Inpatient; | (g) General Outpatient; |
| (b) Extended Care Inpatient; | (h) Administration; |
| (c) Psychiatry Inpatient; | (i) Research/Teaching; |
| (d) Psychiatry Outpatient; | (j) Home Care; |
| (e) Rehabilitation Inpatient; | (k) Vocational Rehabilitation; |
| (f) Rehabilitation Outpatient; | (l) Other/Unknown. |

Some categories represent groupings of principal area of service where numbers are small. When this is done, a footnote appears in Table 5 to define how many OT's reported in each specific category. Where possible, a large number of members who reported "Other" for their principal area of service on their BCSOT registration form have been assigned (based on their written response under "Other") by the HHRU to one of the categories above again this year. The principal area of service category "Community Health" which appeared in past editions of *ROLLCALL* contained many of these "Other" responses which this year have been included in "Rehabilitation Outpatient" and "General Outpatient" in many cases.

6. Principal Position

Table 6 shows type of principal position, as reported by registered and provisional BCSOT members employed in occupational therapy. The categories shown in the table are:

- | | |
|--------------------------------------|-----------------------------------|
| (a) Staff Therapist; | (f) Program Coordinator/Director; |
| (b) Senior Therapist; | (g) Faculty Position/Researcher; |
| (c) Sole Charge; | (h) Consultant; |
| (d) Dept. Head/Assistant Dept. Head; | (i) Clinical Specialist; |
| (e) Clinical Coordinator; | (j) Other/Unknown. |

Some categories represent groupings of principal position where numbers are small. When this is done, a footnote appears in Table 6 to define how many OT's reported in each specific category.

7. Analysis of Change

Table 7 illustrates sources of change which affected the supply of OT's who were registered or provisional members of the BCSOT from December 1995 to March 1998.

New registrants include OT's who were registered or provisional members of the BCSOT as of March 1998 and who registered with the BCSOT *for the first time* subsequent to December 1995. They are reported in the table according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent OT's who were neither registered nor provisional members of the BCSOT in December 1995, but who were registered or provisional members in the province in March 1998, and whose date of initial registration was before December 1995. Also included as reactivations are registered or provisional members of the BCSOT who reported out-of-province addresses in December 1995, but who reported British Columbia addresses in March 1998.

Attrition describes OT's who were registered or provisional members of the BCSOT who were included in the December 1995 supply of OT's, but who, because of death, retirement, out-of-province relocation, or non-renewal of registered or provisional membership, were not included in the March 1998 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of OT's who were registered or provisional members of the BCSOT among different Health Regions. The net migration total is therefore zero.

Table 1a
Occupational Therapists (BCSOT Members)¹ in British Columbia
by Health Region by Membership Status
December 1995 and March 1998

Health Region	Registered				Provisional		Subtotal		Non-Practising		Total	
	Full-Time		Part-Time		1995	1998	1995	1998	1995	1998	1995	1998
	1995	1998	1995	1998								
1 East Kootenay	4	6	2	3	0	0	6	9	1	1	7	10
2 West Kootenay - Boundary	5	5	1	3	0	0	6	8	2	3	8	11
3 North Okanagan	12	4	2	5	0	0	14	9	4	3	18	12
4 South Okanagan - Similkameen	42	56	8	12	1	0	51	68	2	1	53	69
5 Thompson	14	14	3	5	1	0	18	19	1	2	19	21
6 Fraser Valley	14	6	6	10	0	0	20	16	0	1	20	17
7 South Fraser Valley	42	40	12	22	0	1	54	63	4	6	58	69
8 Simon Fraser	44	48	6	13	1	1	51	62	1	0	52	62
9 Coast Garibaldi	5	4	1	1	1	0	7	5	1	1	8	6
10 Central Vancouver Island	31	28	15	15	0	1	46	44	3	0	49	44
11 Upper Island/Central Coast	7	9	7	6	1	1	15	16	1	1	16	17
12 Cariboo	3	4	2	2	0	0	5	6	0	0	5	6
13 North West	11	10	4	2	0	1	15	13	0	2	15	15
14 Peace Liard	2	2	0	1	0	0	2	3	0	0	2	3
15 Northern Interior	10	8	3	4	0	0	13	12	0	0	13	12
16 Vancouver	199	207	52	56	4	7	255	270	21	16	276	286
17 Burnaby	26	32	5	8	1	0	32	40	3	3	35	43
18 North Shore	18	14	12	13	0	1	30	28	4	3	34	31
19 Richmond	44	42	8	8	1	2	53	52	1	2	54	54
20 Capital	64	57	16	27	2	2	82	86	5	6	87	92
TOTAL	597	596	165	216	13	17	775	829	54	51	829	880

¹ Membership in the BCSOT is voluntary.

Table 1b
Occupational Therapists (BCSOT Members)¹ in British Columbia
per 10,000 Population by Health Region by Membership Status
December 1995 and March 1998

Health Region	Registered				Provisional		Subtotal		Non-Practising		Total	
	Full-Time		Part-Time		1995	1998	1995	1998	1995	1998	1995	1998
	1995	1998	1995	1998								
1 East Kootenay	0.52	0.75	0.26	0.38	0.00	0.00	0.78	1.13	0.13	0.13	0.91	1.26
2 West Kootenay - Boundary	0.63	0.61	0.13	0.37	0.00	0.00	0.75	0.98	0.25	0.37	1.00	1.35
3 North Okanagan	1.09	0.35	0.18	0.43	0.00	0.00	1.27	0.78	0.36	0.26	1.63	1.04
4 South Okanagan - Similkameen	1.95	2.50	0.37	0.54	0.05	0.00	2.37	3.03	0.09	0.04	2.46	3.08
5 Thompson	1.12	1.06	0.24	0.38	0.08	0.00	1.44	1.44	0.08	0.15	1.51	1.59
6 Fraser Valley	0.63	0.26	0.27	0.43	0.00	0.00	0.90	0.68	0.00	0.04	0.90	0.73
7 South Fraser Valley	0.81	0.73	0.23	0.40	0.00	0.02	1.04	1.14	0.08	0.11	1.11	1.25
8 Simon Fraser	1.52	1.57	0.21	0.42	0.03	0.03	1.76	2.02	0.03	0.00	1.80	2.02
9 Coast Garibaldi	0.71	0.53	0.14	0.13	0.14	0.00	1.00	0.66	0.14	0.13	1.14	0.80
10 Central Vancouver Island	1.36	1.18	0.66	0.63	0.00	0.04	2.02	1.85	0.13	0.00	2.16	1.85
11 Upper Island/Central Coast	0.61	0.75	0.61	0.50	0.09	0.08	1.31	1.33	0.09	0.08	1.39	1.42
12 Cariboo	0.43	0.53	0.29	0.27	0.00	0.00	0.71	0.80	0.00	0.00	0.71	0.80
13 North West	1.25	1.10	0.46	0.22	0.00	0.11	1.71	1.43	0.00	0.22	1.71	1.65
14 Peace Liard	0.32	0.31	0.00	0.15	0.00	0.00	0.32	0.46	0.00	0.00	0.32	0.46
15 Northern Interior	0.80	0.61	0.24	0.31	0.00	0.00	1.04	0.92	0.00	0.00	1.04	0.92
16 Vancouver	3.77	3.75	0.99	1.02	0.08	0.13	4.84	4.90	0.40	0.29	5.23	5.19
17 Burnaby	1.43	1.71	0.28	0.43	0.06	0.00	1.76	2.13	0.17	0.16	1.93	2.29
18 North Shore	1.04	0.79	0.69	0.74	0.00	0.06	1.74	1.58	0.23	0.17	1.97	1.75
19 Richmond	2.97	2.67	0.54	0.51	0.07	0.13	3.58	3.31	0.07	0.13	3.65	3.44
20 Capital	1.96	1.72	0.49	0.81	0.06	0.06	2.51	2.59	0.15	0.18	2.67	2.77
TOTAL	1.59	1.52	0.44	0.55	0.03	0.04	2.06	2.11	0.14	0.13	2.21	2.24

¹ Membership in the BCSOT is voluntary.

Table 1c
Average Annual Rate of Change¹: Occupational Therapists (BCSOT Members)² in British Columbia
by Health Region by Membership Status
December 1995 to March 1998

Health Region	Registered				Provisional		Subtotal		Non-Practising		Total	
	Full-Time	Part-Time		Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
	Number ³	Ratio ⁴	Number ³		Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴
1 East Kootenay	*	*	*	*	*	*	*	*	*	*	*	*
2 West Kootenay - Boundary	*	*	*	*	*	*	*	*	*	*	*	*
3 North Okanagan	-39.77	-41.04	*	*	*	*	-18.45	-20.17	*	*	-17.07	-18.82
4 South Okanagan - Similkameen	14.20	12.08	*	*	*	*	14.20	12.08	*	*	12.95	10.85
5 Thompson	0.00	-2.32	*	*	*	*	2.53	0.15	*	*	4.73	2.30
6 Fraser Valley	-32.37	-33.85	*	*	*	*	-9.79	-11.77	*	*	-7.23	-9.26
7 South Fraser Valley	-2.23	-4.64	32.28	29.02	*	*	7.37	4.73	*	*	8.35	5.68
8 Simon Fraser	4.10	1.38	*	*	*	*	9.43	6.57	*	*	8.46	5.62
9 Coast Garibaldi	*	*	*	*	*	*	*	*	*	*	*	*
10 Central Vancouver Island	-4.59	-6.51	0.00	-2.01	*	*	-2.03	-4.00	*	*	-4.85	-6.76
11 Upper Island/Central Coast	*	*	*	*	*	*	3.02	0.96	*	*	2.84	0.77
12 Cariboo	*	*	*	*	*	*	*	*	*	*	*	*
13 North West	-4.30	-5.80	*	*	*	*	-6.39	-7.86	*	*	0.00	-1.56
14 Peace Liard	*	*	*	*	*	*	*	*	*	*	*	*
15 Northern Interior	-9.79	-11.44	*	*	*	*	-3.63	-5.40	*	*	-3.63	-5.40
16 Vancouver	1.84	-0.24	3.48	1.38	*	*	2.67	0.59	-11.80	-13.59	1.66	-0.41
17 Burnaby	10.06	8.41	*	*	*	*	10.85	9.18	*	*	9.97	8.32
18 North Shore	-10.95	-11.89	3.76	2.67	*	*	-3.13	-4.15	*	*	-4.17	-5.18
19 Richmond	-2.12	-4.77	*	*	*	*	-0.88	-3.56	*	*	0.00	-2.71
20 Capital	-5.21	-5.96	27.32	26.31	*	*	2.22	1.41	*	*	2.61	1.80
TOTAL	-0.08	-2.07	13.24	10.98	13.18	10.92	3.16	1.10	-2.60	-4.55	2.79	0.74

¹ A 26 month rate of change has been adjusted to an average annual figure.

² Membership in the BCSOT is voluntary.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Occupational Therapists (BCSOT Members)¹ in British Columbia
by Health Region by Age and Sex²
March 1998

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	0	0	0	5	0	3	0	2	0	0	0	0	0	0	0	10	10
2 West Kootenay - Boundary	0	0	1	1	0	6	1	1	0	0	0	0	0	1	2	9	11
3 North Okanagan	0	0	0	3	0	6	0	2	0	0	0	0	0	1	0	12	12
4 South Okanagan - Similkameen	0	1	0	15	0	21	2	11	0	4	0	0	1	14	3	66	69
5 Thompson	0	0	1	9	0	4	0	7	0	0	0	0	0	0	1	20	21
6 Fraser Valley	0	0	0	2	1	6	0	4	0	0	0	0	0	4	1	16	17
7 South Fraser Valley	0	0	1	14	1	23	0	18	0	2	1	0	0	9	3	66	69
8 Simon Fraser	0	2	2	12	5	19	0	10	0	4	0	0	1	7	8	54	62
9 Coast Garibaldi	0	0	0	0	0	2	0	3	0	0	0	0	0	1	0	6	6
10 Central Vancouver Island	0	0	1	8	0	20	0	11	0	1	0	0	0	3	1	43	44
11 Upper Island/Central Coast	0	0	0	2	0	4	0	7	0	1	0	0	0	3	0	17	17
12 Cariboo	0	0	0	4	0	1	0	0	0	0	0	0	0	1	0	6	6
13 North West	0	0	0	6	0	4	0	4	0	0	0	0	0	1	0	15	15
14 Peace Liard	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	2	3
15 Northern Interior	0	0	0	5	0	3	1	1	0	0	0	0	0	2	1	11	12
16 Vancouver	0	3	5	79	8	84	0	56	0	17	0	1	0	33	13	273	286
17 Burnaby	0	0	2	9	3	14	0	7	0	4	0	0	0	4	5	38	43
18 North Shore	0	0	0	7	0	13	0	4	0	4	0	1	0	2	0	31	31
19 Richmond	0	0	5	20	1	12	2	2	0	4	0	0	0	8	8	46	54
20 Capital	0	0	1	16	3	30	2	22	0	8	0	0	0	10	6	86	92
TOTAL	0	7	19	217	23	275	8	172	0	49	1	2	2	105	53	827	880

¹ Membership in the BCSOT is voluntary.

² There are no OT's with missing sex information.

Table 3
Registered and Provisional Occupational Therapists (BCSOT Members)^{1,2} in British Columbia
by Health Region by Employment Status
March 1998

Health Region	Employed in Occupational Therapy ³					Employed in Other Field	Not Employed	On Leave	Other/ Unknown ⁴	Total
	Full-Time	Part-Time	Casual/ Locum	Unknown	Subtotal					
1 East Kootenay	5	4	0	0	9	0	0	0	0	9
2 West Kootenay - Boundary	4	3	0	0	7	0	1	0	0	8
3 North Okanagan	6	2	0	0	8	0	0	1	0	9
4 South Okanagan - Similkameen	41	21	3	1	66	0	0	2	0	68
5 Thompson	11	5	2	0	18	0	0	1	0	19
6 Fraser Valley	7	8	0	0	15	0	1	0	0	16
7 South Fraser Valley	34	23	2	1	60	0	1	0	2	63
8 Simon Fraser	38	18	2	0	58	0	1	3	0	62
9 Coast Garibaldi	3	2	0	0	5	0	0	0	0	5
10 Central Vancouver Island	23	15	1	0	39	1	0	3	1	44
11 Upper Island/Central Coast	6	8	1	0	15	0	1	0	0	16
12 Cariboo	3	3	0	0	6	0	0	0	0	6
13 North West	8	4	0	0	12	0	0	1	0	13
14 Peace Liard	2	1	0	0	3	0	0	0	0	3
15 Northern Interior	7	4	0	0	11	0	0	1	0	12
16 Vancouver	168	68	19	0	255	1	3	5	6	270
17 Burnaby	26	10	0	0	36	1	1	1	1	40
18 North Shore	10	14	1	0	25	0	0	0	3	28
19 Richmond	37	9	1	0	47	0	2	2	1	52
20 Capital	50	27	3	0	80	0	2	1	3	86
TOTAL	489	249	35	2	775	3	13	21	17	829

¹ Membership in the BCSOT is voluntary.

² Excludes 51 Non-Practising members.

³ Includes 22 OT's employed in combined occupational therapy/physical therapy.

⁴ Includes 14 OT's who indicated "Other" as their employment status and 3 who did not supply this information.

Table 4
Registered and Provisional Occupational Therapists (BCSOT Members)^{1,2} Employed in Occupational Therapy³
in British Columbia by Health Region by Principal Employer
March 1998

Health Region	Hospital				Long Term Care ⁴	Public Community Health Agency ⁵	Childrens Treatment/ Outpatient Centre	Workers' Comp- ensation Board	Voluntary/ Non-Profit Agency	School Board/ University/ College ⁶	Private Practice	Other/ Unknown ⁷	Total
	Acute	Paediatric	Rehabil- itation	Psychiatric									
1 East Kootenay	2	0	0	0	0	2	0	0	1	0	3	1	9
2 West Kootenay - Boundary	2	0	0	0	0	0	1	0	0	1	3	0	7
3 North Okanagan	4	0	0	0	0	1	1	0	0	0	2	0	8
4 South Okanagan - Similkameen	22	0	4	0	6	4	1	0	0	1	28	0	66
5 Thompson	6	0	0	0	2	4	4	0	1	0	1	0	18
6 Fraser Valley	3	0	0	0	1	5	0	0	0	0	6	0	15
7 South Fraser Valley	29	0	0	0	4	4	7	0	2	3	11	0	60
8 Simon Fraser	25	0	1	11	8	5	1	0	1	0	5	1	58
9 Coast Garibaldi	2	0	0	0	0	1	0	0	0	0	2	0	5
10 Central Vancouver Island	15	0	0	0	4	2	7	0	1	1	9	0	39
11 Upper Island/Central Coast	5	0	0	1	1	2	1	0	2	0	3	0	15
12 Cariboo	1	0	0	0	0	1	2	0	0	1	1	0	6
13 North West	2	0	0	0	1	1	2	0	1	0	4	1	12
14 Peace Liard	0	0	0	0	0	0	2	0	0	0	1	0	3
15 Northern Interior	4	0	0	0	0	2	0	0	0	3	2	0	11
16 Vancouver	69	14	40	1	15	43	8	2	10	7	44	2	255
17 Burnaby	8	0	0	1	5	8	1	0	1	0	10	2	36
18 North Shore	13	0	0	0	2	6	0	0	0	0	4	0	25
19 Richmond	9	0	0	0	1	4	0	23	1	1	7	1	47
20 Capital	15	0	12	2	12	8	6	0	11	0	14	0	80
TOTAL	236	14	57	16	62	103	44	25	32	18	160	8	775

¹ Membership in the BCSOT is voluntary.

² Excludes 51 Non-Practising members.

³ Excludes 3 OT's who are employed in another field, 13 who are not employed, 21 who are on leave of absence and 17 who indicated "Other/Unknown" for their employment status.

⁴ Includes 43 OT's who indicated "Extended Care Hospital" as their principal employer, 3 who indicated "Intermediate Care Facility", 15 who indicated "Personal/Home Care" and 1 who indicated "Centre for Mentally Handicapped".

⁵ Includes 3 OT's who indicated "Adult Day Care" as their principal employer.

⁶ Includes 10 OT's who indicated "School Board" as their principal employer and 8 who indicated "University/College".

⁷ Includes 3 OT's who indicated "Insurance Corporation" as their principal employer, 2 who indicated "Retail Business", 2 who indicated "Other" and 1 who did not supply this information.

Table 5
Registered and Provisional Occupational Therapists (BCSOT Members)^{1,2} Employed in Occupational Therapy³
in British Columbia by Health Region by Principal Area of Service⁴
March 1998

Health Region	Acute Care	Extended Care	Psychiatry		Rehabilitation		General Outpatient	Admin- istration	Research/ Teaching ⁵	Home Care	Vocational Rehabil- itation	Other/ Unknown ⁶	Total
	Inpatient	Inpatient	Inpatient	Outpatient	Inpatient	Outpatient							
1 East Kootenay	0	0	1	0	0	2	0	0	0	3	1	2	9
2 West Kootenay - Boundary	0	0	0	0	0	0	5	0	0	1	1	0	7
3 North Okanagan	3	0	0	0	0	3	0	0	0	1	1	0	8
4 South Okanagan - Similkameen	5	4	2	2	10	21	5	2	1	5	8	1	66
5 Thompson	1	2	1	3	2	1	3	1	0	4	0	0	18
6 Fraser Valley	0	1	2	3	0	2	4	0	0	2	1	0	15
7 South Fraser Valley	10	3	4	5	1	13	6	3	1	7	6	1	60
8 Simon Fraser	14	8	11	4	4	2	4	4	0	5	1	1	58
9 Coast Garibaldi	0	2	0	0	0	2	1	0	0	0	0	0	5
10 Central Vancouver Island	3	4	1	1	3	8	7	2	0	4	6	0	39
11 Upper Island/Central Coast	2	1	2	2	0	2	5	0	0	1	0	0	15
12 Cariboo	0	1	0	0	0	2	2	0	0	1	0	0	6
13 North West	1	1	0	1	0	4	0	1	0	2	2	0	12
14 Peace Liard	0	0	0	0	0	1	1	0	0	1	0	0	3
15 Northern Interior	0	0	2	0	0	1	2	1	0	2	2	1	11
16 Vancouver	36	15	10	22	36	34	27	11	11	25	24	4	255
17 Burnaby	7	3	0	5	2	3	1	0	0	5	10	0	36
18 North Shore	3	3	1	3	2	4	2	1	0	4	1	1	25
19 Richmond	3	1	1	1	0	9	4	1	0	4	23	0	47
20 Capital	9	7	2	3	9	17	7	2	0	14	5	5	80
TOTAL	97	56	40	55	69	131	86	29	13	91	92	16	775

¹ Membership in the BCSOT is voluntary.

² Excludes 51 Non-Practising members.

³ Excludes 3 OTs who are employed in another field, 13 who are not employed, 21 who are on leave of absence and 17 who indicated "Other/Unknown" for their employment status.

⁴ A large number of OTs who reported "Other" for their principal area of service on their BCSOT registration form have been assigned by the HHRU to an appropriate principal area of service in the table where possible. See text.

⁵ Includes 1 OT who indicated "Research" as his/her principal area of service and 12 who indicated "Teaching".

⁶ Includes 13 OTs who indicated "Other" as their principal area of service and 3 who did not supply this information.

Table 6
Registered and Provisional Occupational Therapists (BCSOT Members)^{1,2} Employed in Occupational Therapy³
in British Columbia by Health Region by Principal Position
March 1998

Health Region	Staff Therapist	Senior Therapist	Sole Charge	Dept. Head/ Assistant Dept. Head ⁴	Clinical Coordinator	Program Coordinator/ Director	Faculty Position/ Researcher ⁵	Consultant	Clinical Specialist	Other/ Unknown ⁶	Total
1 East Kootenay	2	0	4	0	0	0	0	3	0	0	9
2 West Kootenay - Boundary	1	0	2	1	0	0	0	3	0	0	7
3 North Okanagan	2	1	2	1	0	1	0	1	0	0	8
4 South Okanagan - Similkameen	30	5	3	3	0	4	0	20	1	0	66
5 Thompson	8	1	5	2	0	0	0	1	1	0	18
6 Fraser Valley	5	0	5	0	0	0	0	3	1	1	15
7 South Fraser Valley	32	1	6	3	0	2	1	14	0	1	60
8 Simon Fraser	32	10	5	5	1	0	0	5	0	0	58
9 Coast Garibaldi	0	0	3	0	0	0	0	2	0	0	5
10 Central Vancouver Island	18	4	8	3	0	0	0	6	0	0	39
11 Upper Island/Central Coast	4	2	3	1	0	1	0	3	0	1	15
12 Cariboo	1	1	3	0	0	0	0	1	0	0	6
13 North West	2	0	4	1	0	1	0	4	0	0	12
14 Peace Liard	0	0	2	0	0	1	0	0	0	0	3
15 Northern Interior	5	1	0	1	0	1	0	3	0	0	11
16 Vancouver	142	24	8	10	4	9	7	39	6	6	255
17 Burnaby	14	4	4	1	1	2	0	10	0	0	36
18 North Shore	16	4	0	1	0	0	0	4	0	0	25
19 Richmond	36	2	0	1	1	1	0	5	0	1	47
20 Capital	53	6	1	3	1	4	0	6	2	4	80
TOTAL	403	66	68	37	8	27	8	133	11	14	775

¹ Membership in the BCSOT is voluntary.

² Excludes 51 Non-Practising members.

³ Excludes 3 OTs who are employed in another field, 13 who are not employed, 21 who are on leave of absence and 17 who indicated "Other/Unknown" for their employment status.

⁴ Includes 36 OTs who indicated "Department Head" as their principal position and 1 who indicated "Assistant Department Head".

⁵ Includes 7 OTs who indicated "Faculty Position" as their principal position and 1 who indicated "Researcher".

⁶ Includes 11 OTs who indicated "Other" as their principal position and 3 who did not supply this information.

Table 7
Analysis of Change in the Number of Registered and Provisional Occupational Therapists (BCSOT Members)^{1,2}
in British Columbia by Health Region
December 1995 to March 1998

Health Region	December 1995	New Registrants ³ by Place of Graduation					Reactivation ⁴	Attrition ⁵	Net Intra-provincial Migration	March 1998
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	6	0	0	0	0	0	1	0	2	9
2 West Kootenay - Boundary	6	0	0	0	0	0	2	2	2	8
3 North Okanagan	14	0	1	0	0	1	2	4	-4	9
4 South Okanagan - Similkameen	51	4	10	2	0	16	5	8	4	68
5 Thompson	18	0	0	0	0	0	1	5	5	19
6 Fraser Valley	20	0	3	0	0	3	0	4	-3	16
7 South Fraser Valley	54	3	2	5	1	11	5	12	5	63
8 Simon Fraser	51	4	3	2	0	9	4	3	1	62
9 Coast Garibaldi	7	0	0	1	0	1	0	2	-1	5
10 Central Vancouver Island	46	0	1	1	2	4	2	6	-2	44
11 Upper Island/Central Coast	15	0	3	0	0	3	0	2	0	16
12 Cariboo	5	0	1	0	0	1	0	0	0	6
13 North West	15	0	1	0	0	1	0	3	0	13
14 Peace Liard	2	0	2	0	0	2	0	0	-1	3
15 Northern Interior	13	0	1	0	0	1	0	2	0	12
16 Vancouver	255	13	13	9	2	37	28	50	0	270
17 Burnaby	32	3	1	0	0	4	4	3	3	40
18 North Shore	30	1	0	1	0	2	2	5	-1	28
19 Richmond	53	6	0	4	0	10	7	8	-10	52
20 Capital	82	2	6	5	0	13	3	12	0	86
TOTAL	775	36	48	30	5	119	66	131	0	829

¹ Membership in the BCSOT is voluntary.

² Excludes 54 Non-Practising members in 1995 and 51 Non-Practising members in 1998.

³ OTs who reported B.C. addresses and were registered or provisional members in March 1998 and whose date of initial registration was after December 1995.

⁴ OTs who reported B.C. addresses and were registered or provisional members in March 1998 but not in December 1995 and who were registered for the first time before December 1995.

⁵ OTs who reported B.C. addresses and were practising or provisional members in December 1995 but not in March 1998.

PHYSICAL THERAPISTS

Definition: A physical therapist (formerly a physiotherapist)

...provides physical, diagnostic and rehabilitative services to patients with physical dysfunctions caused by trauma, congenital abnormality, disease, surgery, obstetrical and gynaecological conditions, and aging processes to restore and/or achieve optimal function.

Physical therapists perform some or all of the following duties:

- (a) administer tests and examine, observe and take a full history of patients to determine condition and status;
- (b) develop, plan, co-ordinate, monitor and adjust a rehabilitation treatment program appropriate to a condition to achieve objectives, either on an individual or group basis;
- (c) provide consultation to physicians, dentists, other health professionals, teachers or others appropriate to the case;
- (d) instruct, advise and co-ordinate programs of remedial modalities for continuation of treatment;
- (e) recommend referral to other health centres, clinics or treatment facilities as appropriate;
- (f) provide consultation and direction to nurses, aides and activity workers to assist in their methods of handling the patient;
- (g) advise, teach, counsel and educate the patient, his/her family and/or caregivers on correct positions, aids, methods and means of movement for the affected part or the body as a whole;
- (h) conduct screening and other health promotion methods to facilitate physical health and prevent the premature dysfunction of the body;
- (i) conduct research projects relating to any of the above to advance the state of knowledge in this field.¹

Governing Statute: Health Professions Act, R.S.B.C. 1996, Chapter 183; administered by the Ministry of Health and Ministry Responsible for Seniors.

Governing Body: College of Physical Therapists of BC (CPTBC). In order to practice as a physical therapist in British Columbia, it is necessary to be registered by the CPTBC. Registered Physical Therapists have exclusive use of the titles: *physical therapist, registered physical therapist, physiotherapist, and registered physiotherapist.*

Dates of Record: December 1995 and April 1998.

Source of Data: College of Physical Therapists of British Columbia (CPTBC).

Preparation and Updating:

The tables, prepared from registration data maintained by the CPTBC, include physical therapists (PT's) who reported a British Columbia address at the date of record. PT's who also hold membership in the British Columbia Society of Occupational Therapists (BCSOT) are included in both the physical

¹ Adapted from *National Occupational Classification 1992*, Major Group 31, No. 3142, Ottawa: Employment and Immigration Canada.

therapy and occupational therapy sections of *ROLLCALL 97*. The exact number of personnel who are both registered with the CPTBC and members of the BCSOT is not known so the extent of double-counting of personnel in these two groups cannot be determined.

The data in the tables are presented based on employment address when the registration status is *full* or *limited*, when employment in physical therapy is reported, and when employment address is available. In 1995 and 1998, employment address was available for 96% and 95% of full or limited PT's employed in physical therapy, respectively. Home address is used for the remainder, as well as for PT's with full or limited status who are not employed in physical therapy, and for PT's with inactive registration status.

Definition of Terms:

1. Registration Status

A physical therapist may be a *full*, *limited* or *inactive* registrant of the CPTBC. (As of 1995, Part I and Part II registration classifications no longer existed for full registrants.) A PT may work as a limited (formerly temporary) registrant until all qualifications for membership are met. PT's with inactive registration status are included in these tables as these registrants are now required to pay a fee and register each year. Remedial gymnasts may also register as members of the CPTBC but are not included in the tables. The numbers of PT's in each registration category, numbers per 10,000 population, and average annual rates of change in these numbers are shown in Tables 1a, 1b and 1c respectively.

2. Age and Sex

Age and sex information for physical therapists who are full, limited or inactive registrants of the CPTBC is shown in Table 2. Age information in the table is grouped according to adaptations of standard age categories developed and used by Statistics Canada.

3. Employment Status

Employment status as reported on the CPTBC registration renewal form for full and limited registrant PT's is reported in Table 3. The following categories are used:

- (a) Employed in Physical Therapy;
 - (i) Full-time
 - (ii) Part-time
 - (iii) Casual
 - (iv) Status unknown
- (b) On Leave;
- (c) Employed in Other Field;
- (d) Not Employed;
- (e) Unknown.

Please note that the category of "employed in physical therapy - casual" is new in 1998.

4. Principal Employing Institution

Table 4 displays principal employing institution for full and limited registrant PT's employed in physical therapy as reported on the CPTBC registration renewal form. The categories shown in the table are:

- | | |
|---------------------------------------|-----------------------------------|
| (a) General/Extended Care Hospital; | (h) Paediatric Hospital/Facility; |
| (b) Rehabilitation Hospital/Facility; | (k) Private Practice; |
| (c) Long Term Care; | (l) Government/Official Agency; |
| (d) Workers' Compensation Board; | (m) School Board; |
| (e) Community Health Centre; | (n) University/College; |
| (f) Homecare Program; | (o) Other; |
| (g) Arthritis Society; | (p) Unknown. |

Some categories represent groupings of employers when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

5. Principal Employment Activity

Principal employment activity related and not related to patient care for full and limited registrants employed in physical therapy as reported on the CPTBC registration renewal form is shown in Table 5. The categories shown in the table are:

- | | |
|----------------------|---------------------|
| (a) Cardiology; | (h) General; |
| (b) Neurology; | (i) Administration; |
| (c) Orthopaedics; | (j) Teaching; |
| (c) Respirology; | (k) Consulting; |
| (e) Rheumatology; | (l) Other; |
| (f) Sports Medicine; | (m) Unknown. |
| (g) Gerontology; | |

Some categories represent groupings of employment activities when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

6. Principal Type of Position

Principal type of position as reported on the CPTBC registration renewal form by full and limited registrants employed in physical therapy is reported in Table 6. The categories shown in the table are:

- | | |
|---------------------------|---------------------------------------|
| (a) Staff Therapist; | (g) Consultant; |
| (b) Sole Charge; | (h) Owner/Partner - Private Practice; |
| (c) Program Co-ordinator; | (i) Associate - Private Practice; |
| (d) Senior Therapist; | (j) Other; |
| (e) Director; | (k) Unknown. |
| (f) Assistant Director; | |

Some of these categories represent groupings of employment positions when the numbers are small. When this is done, a footnote is used to list specific responses for each category.

7. Analysis of Change

Table 7 illustrates sources of change which affected the supply of PT's who were full or limited registrants from December 1995 to April 1998.

New registrants include PT's who were full or limited registrants as of April 1998 and who registered with the College of Physical Therapists of British Columbia (CPTBC) *for the first time* subsequent to December 1995. New registrants are recorded according to their place of graduation (i.e., from British Columbia, Other Canada or Other Country). Excluded from the table are new registrants who reported out-of-province addresses.

Reactivations represent PT's who were neither full nor limited registrants of the CPTBC in December 1995, but were full or limited registrants in April 1998, and whose date of initial registration was before December 1995. Also included as reactivations are full and limited registrants of the CPTBC who reported out-of-province addresses in December 1995, but who reported British Columbia addresses in April 1998.

Attrition describes PT's who were full or limited registrants of the CPTBC and were included in the December 1995 PT supply, but who, because of death, retirement, out-of-province relocation or non-renewal of active registration with the CPTBC were not included in the April 1998 supply.

Net Intraprovincial Migration describes the net effect of intraprovincial migration; it records the flow of PT's among different Health Regions. The net migration total is therefore zero.

Table 1a
Physical Therapists in British Columbia
by Health Region by Registration Status
December 1995 and April 1998

Health Region	Full		Limited		Subtotal		Inactive		Total	
	1995	1998	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	33	34	0	0	33	34	1	2	34	36
2 West Kootenay - Boundary	51	50	0	0	51	50	3	6	54	56
3 North Okanagan	65	71	1	0	66	71	5	4	71	75
4 South Okanagan - Similkameen	124	140	2	2	126	142	13	10	139	152
5 Thompson	49	55	1	0	50	55	2	5	52	60
6 Fraser Valley	71	72	1	2	72	74	4	5	76	79
7 South Fraser Valley	165	171	3	2	168	173	4	15	172	188
8 Simon Fraser	142	149	0	2	142	151	4	5	146	156
9 Coast Garibaldi	43	48	1	1	44	49	2	5	46	54
10 Central Vancouver Island	104	105	1	1	105	106	4	11	109	117
11 Upper Island/Central Coast	51	50	2	1	53	51	3	6	56	57
12 Cariboo	25	27	0	0	25	27	0	1	25	28
13 North West	25	30	2	0	27	30	4	1	31	31
14 Peace Liard	18	19	2	3	20	22	0	5	20	27
15 Northern Interior	40	41	2	1	42	42	4	7	46	49
16 Vancouver	514	516	8	5	522	521	20	45	542	566
17 Burnaby	71	77	0	2	71	79	2	2	73	81
18 North Shore	104	119	2	5	106	124	11	16	117	140
19 Richmond	100	100	0	0	100	100	6	5	106	105
20 Capital	242	254	2	1	244	255	23	21	267	276
TOTAL	2,037	2,128	30	28	2,067	2,156	115	177	2,182	2,333

Table 1b
Physical Therapists in British Columbia
per 10,000 Population by Health Region by Registration Status
December 1995 and April 1998

Health Region	Full		Limited		Subtotal		Inactive		Total	
	1995	1998	1995	1998	1995	1998	1995	1998	1995	1998
1 East Kootenay	4.30	4.27	0.00	0.00	4.30	4.27	0.13	0.25	4.43	4.52
2 West Kootenay - Boundary	6.41	6.14	0.00	0.00	6.41	6.14	0.38	0.74	6.78	6.88
3 North Okanagan	5.89	6.14	0.09	0.00	5.98	6.14	0.45	0.35	6.43	6.49
4 South Okanagan - Similkameen	5.76	6.25	0.09	0.09	5.86	6.34	0.60	0.45	6.46	6.78
5 Thompson	3.91	4.17	0.08	0.00	3.99	4.17	0.16	0.38	4.15	4.55
6 Fraser Valley	3.19	3.08	0.04	0.09	3.23	3.16	0.18	0.21	3.41	3.38
7 South Fraser Valley	3.17	3.11	0.06	0.04	3.22	3.14	0.08	0.27	3.30	3.42
8 Simon Fraser	4.91	4.86	0.00	0.07	4.91	4.93	0.14	0.16	5.05	5.09
9 Coast Garibaldi	6.15	6.38	0.14	0.13	6.29	6.51	0.29	0.66	6.57	7.17
10 Central Vancouver Island	4.58	4.42	0.04	0.04	4.62	4.46	0.18	0.46	4.80	4.93
11 Upper Island/Central Coast	4.44	4.16	0.17	0.08	4.61	4.25	0.26	0.50	4.87	4.75
12 Cariboo	3.57	3.61	0.00	0.00	3.57	3.61	0.00	0.13	3.57	3.74
13 North West	2.85	3.31	0.23	0.00	3.08	3.31	0.46	0.11	3.53	3.42
14 Peace Liard	2.89	2.92	0.32	0.46	3.21	3.38	0.00	0.77	3.21	4.14
15 Northern Interior	3.20	3.15	0.16	0.08	3.36	3.22	0.32	0.54	3.68	3.76
16 Vancouver	9.75	9.36	0.15	0.09	9.90	9.45	0.38	0.82	10.28	10.27
17 Burnaby	3.91	4.11	0.00	0.11	3.91	4.22	0.11	0.11	4.02	4.32
18 North Shore	6.02	6.73	0.12	0.28	6.14	7.02	0.64	0.91	6.78	7.92
19 Richmond	6.76	6.37	0.00	0.00	6.76	6.37	0.41	0.32	7.16	6.69
20 Capital	7.42	7.65	0.06	0.03	7.48	7.68	0.70	0.63	8.18	8.31
TOTAL	5.43	5.43	0.08	0.07	5.51	5.50	0.31	0.45	5.81	5.95

Table 1c
Average Annual Rate of Change¹: Physical Therapists in British Columbia
by Health Region by Registration Status
December 1995 to April 1998

Health Region	Full		Limited		Subtotal		Inactive		Total	
	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³	Number ²	Ratio ³
1 East Kootenay	1.24	-0.32	*	*	1.24	-0.32	*	*	2.39	0.81
2 West Kootenay - Boundary	-0.82	-1.73	*	*	-0.82	-1.73	*	*	1.52	0.58
3 North Okanagan	3.72	1.76	*	*	3.07	1.12	*	*	2.29	0.36
4 South Okanagan - Similkameen	5.15	3.39	*	*	5.07	3.32	-10.29	-11.79	3.77	2.04
5 Thompson	4.90	2.71	*	*	4.02	1.86	*	*	6.10	3.89
6 Fraser Valley	0.58	-1.40	*	*	1.14	-0.85	*	*	1.61	-0.39
7 South Fraser Valley	1.49	-0.76	*	*	1.22	-1.02	*	*	3.75	1.45
8 Simon Fraser	2.01	-0.38	*	*	2.58	0.17	*	*	2.78	0.37
9 Coast Garibaldi	4.66	1.55	*	*	4.55	1.45	*	*	6.86	3.68
10 Central Vancouver Island	0.40	-1.41	*	*	0.39	-1.42	*	*	2.97	1.12
11 Upper Island/Central Coast	-0.82	-2.60	*	*	-1.58	-3.35	*	*	0.74	-1.08
12 Cariboo	3.24	0.52	*	*	3.24	0.52	*	*	4.80	2.05
13 North West	7.84	6.32	*	*	4.46	2.99	*	*	0.00	-1.40
14 Peace Liard	2.26	0.43	*	*	4.02	2.16	*	*	13.22	11.19
15 Northern Interior	1.03	-0.64	*	*	0.00	-1.65	*	*	2.65	0.96
16 Vancouver	0.16	-1.67	*	*	-0.08	-1.90	39.87	37.32	1.81	-0.05
17 Burnaby	3.41	2.02	*	*	4.52	3.11	*	*	4.40	2.99
18 North Shore	5.73	4.73	*	*	6.71	5.70	16.77	15.67	7.71	6.69
19 Richmond	0.00	-2.43	*	*	0.00	-2.43	*	*	-0.39	-2.81
20 Capital	2.02	1.30	*	*						
					1.84	1.12	-3.69	-4.38	1.38	0.66
TOTAL	1.82	0.00	-2.81	-4.55	1.76	-0.06	19.53	17.39	2.81	0.97

¹ A 29 month rate of change has been adjusted to an average annual figure.

² Rate of change (in percent) in the number.

³ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

Table 2
Physical Therapists¹ in British Columbia
by Health Region by Age and Sex
April 1998

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Age Unknown		Subtotal		Sex	Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Unknown	
1 East Kootenay	0	0	2	9	1	9	2	7	1	4	0	0	0	1	6	30	0	36
2 West Kootenay - Boundary	0	0	1	7	1	24	3	12	0	6	0	1	0	1	5	51	0	56
3 North Okanagan	1	1	2	14	7	18	5	20	0	5	1	1	0	0	16	59	0	75
4 South Okanagan - Similkameen	0	1	10	23	12	55	6	31	1	9	2	0	0	1	31	120	1	152
5 Thompson	0	0	2	11	5	17	5	9	0	10	0	0	1	0	13	47	0	60
6 Fraser Valley	3	3	8	15	4	15	3	19	2	6	0	0	1	0	21	58	0	79
7 South Fraser Valley	0	2	13	32	16	49	6	44	4	12	1	1	3	5	43	145	0	188
8 Simon Fraser	0	7	11	32	6	50	3	33	4	6	0	3	1	0	25	131	0	156
9 Coast Garibaldi	0	0	3	20	0	13	1	14	1	0	0	2	0	0	5	49	0	54
10 Central Vancouver Island	0	0	3	19	8	31	2	41	2	8	1	0	0	2	16	101	0	117
11 Upper Island/Central Coast	0	0	3	7	4	18	2	17	1	4	0	0	0	1	10	47	0	57
12 Cariboo	0	0	1	5	2	8	0	10	0	1	0	1	0	0	3	25	0	28
13 North West	0	1	3	7	4	4	0	10	0	2	0	0	0	0	7	24	0	31
14 Peace Liard	0	0	2	6	1	7	0	6	0	4	0	0	0	1	3	24	0	27
15 Northern Interior	0	1	4	12	1	12	0	17	0	1	0	0	0	1	5	44	0	49
16 Vancouver	3	8	38	149	29	142	13	128	4	39	1	6	0	6	88	478	0	566
17 Burnaby	0	1	8	20	6	18	5	14	2	5	0	0	2	0	23	58	0	81
18 North Shore	1	2	8	26	5	33	3	31	0	28	0	2	0	1	17	123	0	140
19 Richmond	1	3	5	22	10	27	6	23	1	7	0	0	0	0	23	82	0	105
20 Capital	0	3	9	41	14	67	12	82	6	30	1	6	2	3	44	232	0	276
TOTAL	9	33	136	477	136	617	77	568	29	187	7	23	10	23	404	1,928	1	2,333

¹ Includes Full, Limited and Inactive registrants.

Table 3
Physical Therapists¹ in British Columbia
by Health Region by Employment Status
April 1998

Health Region	Employed in Physical Therapy ²					On Leave	Employed in Other Field	Not Employed	Unknown	Total
	Full-Time	Part-Time	Casual	Unknown	Subtotal					
1 East Kootenay	16	13	1	0	30	1	0	0	3	34
2 West Kootenay - Boundary	17	25	2	0	44	1	2	0	3	50
3 North Okanagan	36	24	3	0	63	2	0	1	5	71
4 South Okanagan - Similkameen	79	41	5	0	125	3	2	2	10	142
5 Thompson	35	15	2	0	52	0	0	1	2	55
6 Fraser Valley	42	17	3	0	62	1	0	0	11	74
7 South Fraser Valley	109	42	10	0	161	0	2	1	9	173
8 Simon Fraser	79	40	15	0	134	1	2	2	12	151
9 Coast Garibaldi	29	12	2	0	43	1	1	0	4	49
10 Central Vancouver Island	57	28	7	0	92	1	0	3	10	106
11 Upper Island/Central Coast	25	20	3	0	48	0	0	0	3	51
12 Cariboo	12	12	0	0	24	1	0	0	2	27
13 North West	13	12	0	0	25	0	1	0	4	30
14 Peace Liard	12	5	1	0	18	0	0	0	4	22
15 Northern Interior	19	11	3	1	34	1	0	1	6	42
16 Vancouver	272	112	37	1	422	8	16	6	69	521
17 Burnaby	44	19	6	1	70	0	0	0	9	79
18 North Shore	55	35	7	1	98	1	3	5	17	124
19 Richmond	67	19	7	0	93	1	0	0	6	100
20 Capital	126	79	20	1	226	4	3	5	17	255
TOTAL	1,144	581	134	5	1,864	27	32	27	206	2,156

¹ Excludes 177 Inactive registrants.

² Includes 60 PT's who are employed in combined physical/occupational therapy.

Table 4
Physical Therapists Employed in Physical Therapy^{1,2} in British Columbia
by Health Region by Principal Employing Institution
April 1998

Health Region	General/ Extended Care Hospital	Rehab. Hospital/ Facility	Long Term Care	Workers' Compensation Board	Community Health Centre	Homecare Program	Arthritis Society
1 East Kootenay	13	1	0	0	1	0	1
2 West Kootenay - Boundary	20	0	1	0	0	1	0
3 North Okanagan	26	1	1	0	4	1	0
4 South Okanagan - Similkameen	43	1	7	0	5	5	3
5 Thompson	21	0	3	0	0	3	0
6 Fraser Valley	18	0	1	0	0	2	0
7 South Fraser Valley	44	3	7	2	1	2	0
8 Simon Fraser	53	2	5	0	2	2	0
9 Coast Garibaldi	7	0	0	0	1	1	0
10 Central Vancouver Island	25	2	4	0	0	7	0
11 Upper Island/Central Coast	14	0	0	0	4	1	0
12 Cariboo	7	0	0	0	0	0	0
13 North West	10	0	1	1	1	0	0
14 Peace Liard	6	0	0	0	0	2	0
15 Northern Interior	16	0	0	0	0	1	0
16 Vancouver	114	53	14	3	10	17	12
17 Burnaby	12	0	5	0	1	7	0
18 North Shore	21	2	4	0	3	5	0
19 Richmond	20	1	0	30	1	7	0
20 Capital	57	17	12	0	11	11	7
TOTAL	547	83	65	36	45	75	23

...continued

¹ Excludes 177 inactive registrants.

² Excludes 27 PT's who are on leave, 32 who are employed in other fields, 27 who are not employed and 206 who did not indicate their employment status.

Table 4 (continued)
Physical Therapists Employed in Physical Therapy^{1,2} in British Columbia
by Health Region by Principal Employing Institution
April 1998

Health Region	Paediatric Hospital/ Facility	Private Practice	Government/ Official Agency	School Board	University/ College	Other ³	Unknown	Total
1 East Kootenay	0	10	2	2	0	0	0	30
2 West Kootenay - Boundary	2	16	1	1	0	2	0	44
3 North Okanagan	3	25	0	1	0	1	0	63
4 South Okanagan - Similkameen	3	51	0	4	0	3	0	125
5 Thompson	3	21	0	0	0	0	1	52
6 Fraser Valley	1	37	0	1	0	2	0	62
7 South Fraser Valley	8	87	1	0	0	3	3	161
8 Simon Fraser	4	59	0	0	2	5	0	134
9 Coast Garibaldi	1	31	0	1	0	1	0	43
10 Central Vancouver Island	5	45	2	1	0	1	0	92
11 Upper Island/Central Coast	1	24	0	2	0	2	0	48
12 Cariboo	2	13	1	0	0	1	0	24
13 North West	2	8	0	0	0	1	1	25
14 Peace Liard	2	5	0	1	0	1	1	18
15 Northern Interior	4	12	0	0	0	0	1	34
16 Vancouver	41	131	2	0	9	16	0	422
17 Burnaby	0	41	1	0	2	1	0	70
18 North Shore	0	55	0	0	0	6	2	98
19 Richmond	0	28	0	0	0	5	1	93
20 Capital	12	86	3	1	3	5	1	226
TOTAL	94	785	13	15	16	56	11	1,864

¹ Excludes 177 inactive registrants.

² Excludes 27 PT's who are on leave, 32 who are employed in other fields, 27 who are not employed and 206 who did not indicate their employment status.

³ Includes 2 PT's who indicated "Industry" as their principal employing institution, 2 who indicated "Other Visiting Agency", 3 who indicated "Psychiatric Hospital/Facility", 2 who indicated "Retail" and 47 who indicated "Other".

Table 5
Physical Therapists Employed in Physical Therapy^{1,2} in British Columbia
by Health Region by Principal Employment Activity
April 1998

Health Region	Cardiology	Neurology	Orthopaedics	Respirology	Rheum- atology	Sports Medicine	Gerontology
1 East Kootenay	0	1	15	0	1	0	4
2 West Kootenay - Boundary	0	3	20	0	0	0	2
3 North Okanagan	0	5	27	0	1	2	4
4 South Okanagan - Similkameen	0	16	57	2	4	0	12
5 Thompson	0	5	19	2	0	2	3
6 Fraser Valley	0	5	28	2	0	0	6
7 South Fraser Valley	0	12	80	1	3	2	12
8 Simon Fraser	2	9	63	8	0	1	16
9 Coast Garibaldi	0	2	23	0	0	3	2
10 Central Vancouver Island	0	6	43	0	2	1	5
11 Upper Island/Central Coast	0	2	21	1	0	0	1
12 Cariboo	0	2	7	0	0	0	2
13 North West	0	1	11	0	0	0	2
14 Peace Liard	0	0	5	0	0	0	1
15 Northern Interior	1	3	13	2	0	0	0
16 Vancouver	8	76	136	20	16	6	27
17 Burnaby	0	0	37	1	0	4	11
18 North Shore	1	10	49	0	3	3	11
19 Richmond	1	3	56	1	2	2	1
20 Capital	3	28	87	8	7	1	26
TOTAL	16	189	797	48	39	27	148

...continued

¹ Excludes 177 Inactive registrants.

² Excludes 27 PT's who are on leave, 32 who are employed in other fields, 27 who are not employed and 206 who did not indicate their employment status.

Table 5 (continued)
Physical Therapists Employed in Physical Therapy^{1,2} in British Columbia
by Health Region by Principal Employment Activity
April 1998

Health Region	General	Admin- istration	Teaching	Consulting	Other ³	Unknown	Total
1 East Kootenay	8	1	0	0	0	0	30
2 West Kootenay - Boundary	15	1	0	1	2	0	44
3 North Okanagan	21	1	0	1	1	0	63
4 South Okanagan - Similkameen	28	2	1	3	0	0	125
5 Thompson	17	1	0	1	1	1	52
6 Fraser Valley	19	1	0	0	1	0	62
7 South Fraser Valley	35	6	2	2	2	4	161
8 Simon Fraser	24	5	1	1	3	1	134
9 Coast Garibaldi	12	0	0	0	0	1	43
10 Central Vancouver Island	30	2	0	1	1	1	92
11 Upper Island/Central Coast	21	0	1	0	1	0	48
12 Cariboo	12	1	0	0	0	0	24
13 North West	10	0	0	0	0	1	25
14 Peace Liard	11	0	0	0	0	1	18
15 Northern Interior	14	0	0	0	0	1	34
16 Vancouver	73	12	8	8	29	3	422
17 Burnaby	12	3	0	1	0	1	70
18 North Shore	16	2	0	0	2	1	98
19 Richmond	15	4	1	2	5	0	93
20 Capital	50	8	0	1	6	1	226
TOTAL	443	50	14	22	54	17	1,864

¹ Excludes 177 Inactive registrants.

² Excludes 27 PT's who are on leave, 32 who are employed in other fields, 27 who are not employed and 206 who did not indicate their employment status.

³ Includes 7 PT's who indicated "Amputees" as their principal patient care activity, 6 who indicated "Plastics", 5 who indicated "Palliative Care", 4 who indicated "Psychiatry/Mentally Handicapped", 11 who indicated "Prevention/Health Promotion", 3 who indicated "Burns", 8 who indicated "Obstetrics/Gynaecology", 2 who indicated "Sales", 4 who indicated "Research" and 4 who indicated "Other Non-Patient Care" as their principal activity.

Table 6
Physical Therapists Employed in Physical Therapy^{1,2} in British Columbia
by Health Region by Principal Type of Position
April 1998

Health Region	Staff Therapist	Sole Charge	Program Co-ordinator	Senior Therapist	Director	Assistant Director	Consultant	Owner/ Partner Private Practice	Associate- Private Practice	Other ³	Unknown	Total
1 East Kootenay	15	3	0	0	5	0	1	5	1	0	0	30
2 West Kootenay - Boundary	17	8	0	2	2	0	1	10	4	0	0	44
3 North Okanagan	28	3	0	3	3	0	1	16	5	4	0	63
4 South Okanagan - Similkameen	58	9	0	7	4	0	4	25	15	3	0	125
5 Thompson	22	5	0	4	3	1	0	9	7	1	0	52
6 Fraser Valley	18	5	1	1	3	0	3	19	11	1	0	62
7 South Fraser Valley	57	6	1	6	3	0	9	38	32	8	1	161
8 Simon Fraser	60	4	0	9	6	1	2	26	20	6	0	134
9 Coast Garibaldi	10	7	1	0	1	0	1	13	8	2	0	43
10 Central Vancouver Island	36	6	0	6	2	0	3	26	11	2	0	92
11 Upper Island/Central Coast	15	6	0	1	2	0	3	12	7	2	0	48
12 Cariboo	4	5	0	0	2	0	0	10	1	2	0	24
13 North West	7	4	0	2	2	0	1	7	2	0	0	25
14 Peace Liard	4	7	0	1	1	0	1	4	0	0	0	18
15 Northern Interior	20	3	1	0	0	0	1	4	3	1	1	34
16 Vancouver	223	7	4	33	7	0	19	62	48	17	2	422
17 Burnaby	20	1	1	7	3	0	1	18	17	2	0	70
18 North Shore	41	3	0	6	1	0	1	30	14	2	0	98
19 Richmond	49	3	5	5	2	0	2	14	8	5	0	93
20 Capital	122	9	6	6	1	3	15	38	20	5	1	226
TOTAL	826	104	20	99	53	5	69	386	234	63	5	1,864

¹ Excludes 177 Inactive registrants.

² Excludes 27 PT's who are on leave, 32 who are employed in other fields, 27 who are not employed and 206 who did not indicate their employment status.

³ Includes 4 PT's who indicated "Clinical Instructor" as their principal type of position, 4 who indicated "Research Therapist" and 55 who indicated "Other".

Table 7
Analysis of Change in the Number of Physical Therapists¹ in British Columbia
by Health Region
December 1995 to April 1998

Health Region	December 1995	New Registrants ² by Place of Graduation					Reactivation ³	Attrition ⁴	Net Intra-provincial Migration	April 1998
		B.C.	Other Canada	Other Country	Unknown	Subtotal				
1 East Kootenay	33	0	3	1	0	4	2	6	1	34
2 West Kootenay - Boundary	51	0	2	1	0	3	2	6	0	50
3 North Okanagan	66	2	3	0	0	5	4	6	2	71
4 South Okanagan - Similkameen	126	1	10	1	0	12	8	12	8	142
5 Thompson	50	0	1	0	0	1	4	2	2	55
6 Fraser Valley	72	3	7	0	0	10	1	7	-2	74
7 South Fraser Valley	168	1	10	2	1	14	4	17	4	173
8 Simon Fraser	142	7	8	2	0	17	4	17	5	151
9 Coast Garibaldi	44	0	5	1	0	6	2	5	2	49
10 Central Vancouver Island	105	3	3	1	0	7	3	10	1	106
11 Upper Island/Central Coast	53	0	1	2	0	3	1	7	1	51
12 Cariboo	25	2	0	1	0	3	1	2	0	27
13 North West	27	2	1	1	0	4	2	3	0	30
14 Peace Liard	20	0	1	2	0	3	0	3	2	22
15 Northern Interior	42	1	4	1	0	6	0	5	-1	42
16 Vancouver	522	25	40	16	0	81	17	67	-32	521
17 Burnaby	71	3	9	2	0	14	4	8	-2	79
18 North Shore	106	7	6	5	0	18	4	12	8	124
19 Richmond	100	4	1	1	0	6	2	13	5	100
20 Capital	244	6	12	3	0	21	16	22	-4	255
TOTAL	2,067	67	127	43	1	238	81	230	0	2,156

¹ Excludes 177 Inactive registrants.

² PTs who reported B.C. addresses and were full or limited registrants in April 1998 and whose date of initial registration was after December 1995.

³ PTs who reported B.C. addresses and were full or limited registrants in April 1998 but not in December 1995 and who were registered for the first time before December 1995.

⁴ PTs who reported B.C. addresses and were full or limited registrants in December 1995 but not in April 1998.

PROSTHETISTS AND ORTHOTISTS

Definition: (I) A prosthetist

...is a professional worker who can design, fabricate and fit appropriate appliances and devices designed to replace part of the human locomotor system.

(II) An orthotist

...is a professional worker who can design, fabricate and fit appropriate supports, braces, shoes, remedial appliances and devices designed to correct, develop, strengthen or support and increase the physiological performance of the human locomotor system.¹

Governing Statute: None.

Governing Body: None. Compulsory registration and/or licensure do not exist. Membership in the Canadian Association of Prosthetists and Orthotists (CAPO) and the Prosthetist and Orthotist Association of British Columbia (POABC) is voluntary. However, only those who have passed qualifying exams are entitled to the use of the titles: *C.P. (Certified Prosthetist)*, *C.O. (Certified Orthotist)*, *C.P.O. (Certified Prosthetist and Orthotist)*, *R.T.P. (Registered Technician Prosthetics)*, *R.T.O. (Registered Technician Orthotics)* and *R.T.P.O. (Registered Technician Prosthetics and Orthotics)*.

Date of Record: November 1995 and December 1997.

Sources of Data: The Canadian Association of Prosthetists and Orthotists (CAPO) and the Canadian Board for Certification of Prosthetists and Orthotists.

Preparation and Updating:

The tables, derived from membership lists provided by the B.C. Branch of the CAPO, include prosthetists and orthotists who were *certified* with the Canadian Board for Certification of Prosthetists and Orthotists or *registered* with the CAPO and reported a British Columbia address at the date of record. Data presented in the tables are based on employment address for the majority of prosthetists and orthotists. Precise percentages of home versus employment address are not known.

Definition of Terms:

Tables 1a and 1b present the number and number per 10,000 population of prosthetists and orthotists in British Columbia by area of certification/registration. Table 1c shows the average annual rates of change in these numbers for the province as a whole.

Certifees are prosthetists and orthotists who have completed a two-year course of study at an approved institution, completed a two-year internship, passed the national certification exam

¹ Adapted from information received from the Canadian Board for Certification of Prosthetists and Orthotists. See also *National Occupational Classification 1992*, Major Group 32, No. 3219, Ottawa: Employment and Immigration Canada.

administered by the Canadian Board for Certification of Prosthetists and Orthotists, and remain in good standing with the Canadian Board for Certification of Prosthetists and Orthotists. Certifees focus on patient assessment and equipment design, though many certifees also serve as their own technicians.

Registered technicians are trained in the production of prosthetic and orthotic equipment. The registered designation is given after passing exams standardised by the Canadian Association of Prosthetists and Orthotists (CAPO). The exams can be taken following completion of a two year training program and two years of work in the field, or after four years of work in the field. Registered technicians generally do not have client contact.

If so qualified, an individual may hold dual certification as a prosthetist and orthotist, or registration as a technician in prosthetics and orthotics.

This is, however, an unregulated profession in B.C., so the number and precise function of people practising in the field who are not Board certified (by the Canadian Board for Certification of Prosthetists and Orthotists) or Registered (by the Canadian Association of Prosthetists and Orthotists) can not be determined.

Table 1a
Prosthetists and Orthotists (CBCPO Certified and CAPO Registered)¹ in British Columbia
by Health Region by Area of Certification/Registration
November 1995 and December 1997

Health Region	Certified								Registered								Total	
	Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal		Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal			
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997		
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997		
1 East Kootenay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 West Kootenay - Boundary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 North Okanagan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 South Okanagan - Similkameen	2	1	1	2	3	3	6	6	0	1	0	0	2	2	2	3	8	9
5 Thompson	1	1	1	1	1	1	3	3	0	0	1	1	1	1	2	2	5	5
6 Fraser Valley	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
7 South Fraser Valley	0	0	3	1	0	0	3	1	0	0	0	0	0	0	0	0	3	1
8 Simon Fraser	2	2	2	2	0	0	4	4	0	0	0	0	0	1	0	1	4	5
9 Coast Garibaldi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Central Vancouver Island	1	1	0	2	0	0	1	3	0	0	0	0	0	0	0	0	1	3
11 Upper Island/Central Coast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Cariboo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 North West	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Peace Liard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 Northern Interior	1	1	1	1	0	0	2	2	0	0	0	0	0	0	0	0	2	2
16 Vancouver	4	7	4	5	2	2	10	14	5	4	1	0	3	4	9	8	19	22
17 Burnaby	0	0	0	1	1	1	1	2	0	0	1	0	0	0	1	0	2	2
18 North Shore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Richmond	0	0	1	1	0	0	1	1	0	0	1	2	0	0	1	2	2	3
20 Capital	3	3	4	4	1	1	8	8	2	2	1	1	1	0	4	3	12	11
TOTAL	15	17	17	20	8	8	40	45	7	7	5	4	7	8	19	19	59	64

¹ Certification by the Canadian Board for Certification of Prosthetists & Orthotists (CBCPO) and registration by the Canadian Association of Prosthetists & Orthotists (CAPO) is voluntary, but requires passing standardized national exams.

Table 1b
Prosthetists and Orthotists (CBCPO Certified and CAPO Registered)¹ in British Columbia
per 10,000 Population by Health Region by Area of Certification/Registration
November 1995 and December 1997

Health Region	Certified								Registered								Total	
	Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal		Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal			
					Prosthetist	Orthotist												
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997		
1 East Kootenay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 West Kootenay - Boundary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 North Okanagan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 South Okanagan - Similkameen	0.09	0.04	0.05	0.09	0.14	0.13	0.28	0.27	0.00	0.04	0.00	0.00	0.09	0.09	0.09	0.13	0.37	0.40
5 Thompson	0.08	0.08	0.08	0.08	0.08	0.08	0.24	0.23	0.00	0.00	0.08	0.08	0.08	0.08	0.16	0.15	0.40	0.38
6 Fraser Valley	0.04	0.04	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
7 South Fraser Valley	0.00	0.00	0.06	0.02	0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.02
8 Simon Fraser	0.07	0.07	0.07	0.07	0.00	0.00	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.14	0.16
9 Coast Garibaldi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Central Vancouver Island	0.04	0.04	0.00	0.08	0.00	0.00	0.04	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13
11 Upper Island/Central Coast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12 Cariboo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13 North West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Peace Liard	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15 Northern Interior	0.08	0.08	0.08	0.08	0.00	0.00	0.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.15
16 Vancouver	0.08	0.13	0.08	0.09	0.04	0.04	0.19	0.25	0.09	0.07	0.02	0.00	0.06	0.07	0.17	0.15	0.36	0.40
17 Burnaby	0.00	0.00	0.00	0.05	0.06	0.05	0.06	0.11	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.11	0.11
18 North Shore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19 Richmond	0.00	0.00	0.07	0.06	0.00	0.00	0.07	0.06	0.00	0.00	0.07	0.13	0.00	0.00	0.07	0.13	0.14	0.19
20 Capital	0.09	0.09	0.12	0.12	0.03	0.03	0.25	0.24	0.06	0.06	0.03	0.03	0.03	0.00	0.12	0.09	0.37	0.33
TOTAL	0.04	0.04	0.05	0.05	0.02	0.02	0.11	0.11	0.02	0.02	0.01	0.01	0.02	0.02	0.05	0.05	0.16	0.16

¹ Certification by the Canadian Board for Certification of Prosthetists & Orthotists (CBCPO) and registration by the Canadian Association of Prosthetists & Orthotists (CAPO) is voluntary, but requires passing standardized national exams.

Table 1c
Average Annual Rate of Change¹: Prosthetists and Orthotists (CBCPO Certified and CAPO Registered)² in British Columbia
by Health Region by Area of Certification/Registration
November 1995 to December 1997

Health Region	Certified								Registered								Total	
	Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal		Prosthetist		Orthotist		Prosthetist/ Orthotist		Subtotal			
	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴	Number ³	Ratio ⁴		
1 East Kootenay	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2 West Kootenay - Boundary	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3 North Okanagan	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4 South Okanagan - Similkameen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5 Thompson	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6 Fraser Valley	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7 South Fraser Valley	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8 Simon Fraser	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9 Coast Garibaldi	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10 Central Vancouver Island	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11 Upper Island/Central Coast	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 Cariboo	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13 North West	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14 Peace Liard	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15 Northern Interior	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16 Vancouver	*	*	*	*	*	*	17.53	15.04	*	*	*	*	*	*	*	*	7.29	5.02
17 Burnaby	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18 North Shore	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19 Richmond	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20 Capital	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-4.09	-4.88
TOTAL	6.19	3.99	8.11	5.87	*	*	5.82	3.62	*	*	*	*	*	*	0.00	-2.07	3.98	1.82

¹ A 25 month rate of change has been adjusted to an average annual figure.

² Certification by the Canadian Board for Certification of Prosthetists & Orthotists (CBCPO) and registration by the Canadian Association of Prosthetists & Orthotists (CAPO) is voluntary, but requires passing standardized national exams.

³ Rate of change (in percent) in the number.

⁴ Rate of change (in percent) in the number per 10,000 population.

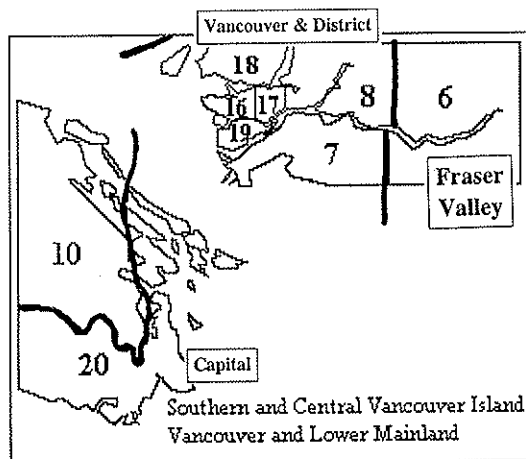
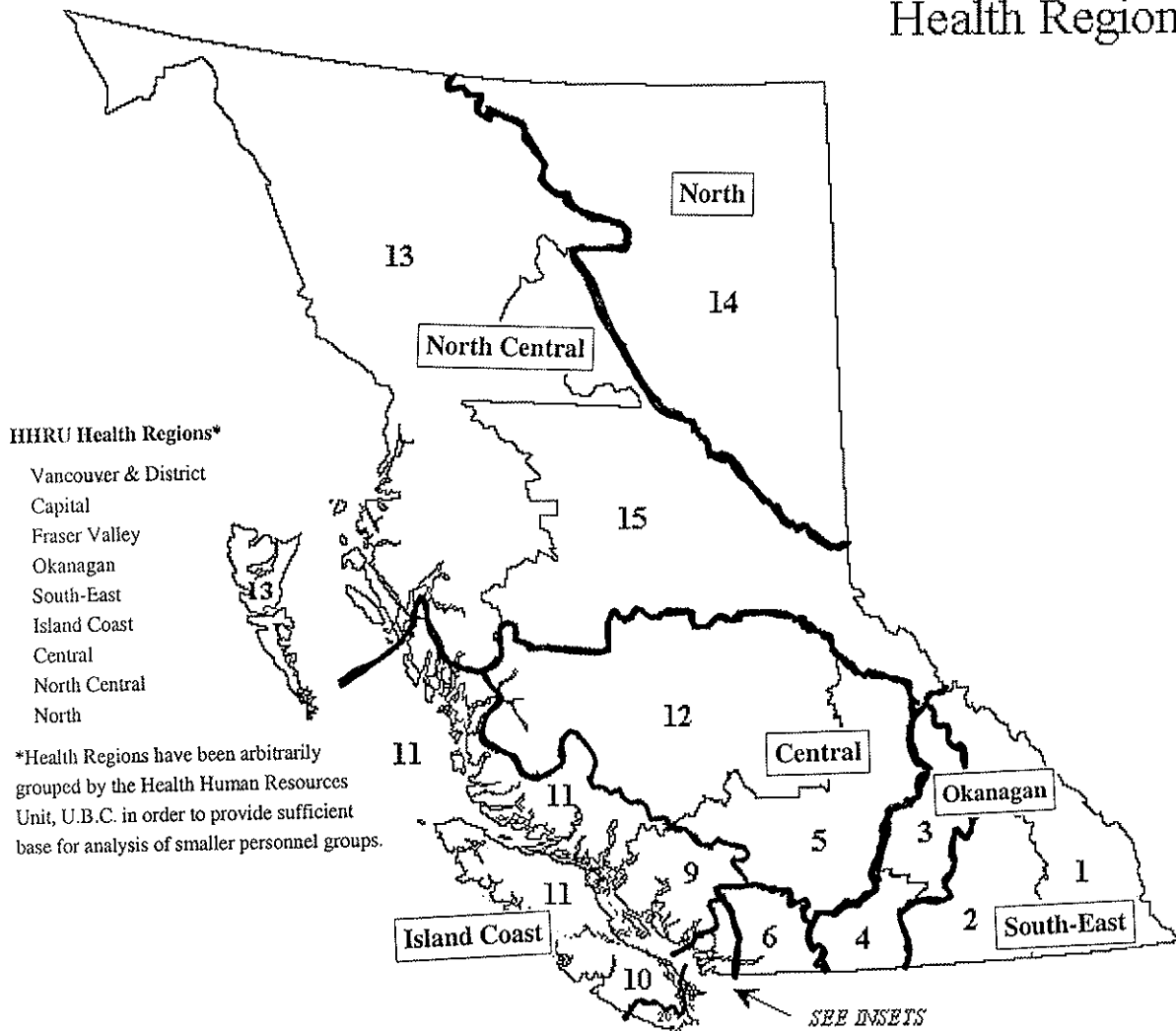
* Indicates that the base for the rate of change is less than 10.

APPENDICES

APPENDIX A

BRITISH COLUMBIA, LOCAL HEALTH AND HEALTH HUMAN RESOURCES UNIT HEALTH REGIONS

British Columbia Health Regions



HEALTH REGIONS

- | | |
|-------------------------------|--------------------------------|
| 1. East Kootenay | 11. Upper Island/Central Coast |
| 2. West Kootenay-Boundary | 12. Cariboo |
| 3. North Okanagan | 13. North West |
| 4. South Okanagan Similkameen | 14. Peace Liard |
| 5. Thompson | 15. Northern Interior |
| 6. Fraser Valley | 16. Vancouver |
| 7. South Fraser Valley | 17. Burnaby |
| 8. Simon Fraser | 18. North Shore |
| 9. Coast Garibaldi | 19. Richmond |
| 10. Central Vancouver Island | 20. Capital |

Conversion Summary: HHRU Health Regions, B.C. Health Regions, and Local Health Areas

HHRU Health Region	B.C. Health Regions	Local Health Area(s)	
Vancouver & District	7 South Fraser Valley	35 Langley	37 Delta
		36 Surrey	
	8 Simon Fraser	40 New Westminster	43 Coquitlam
		42 Maple Ridge	
	16 Vancouver	39 Vancouver	
	17 Burnaby	41 Burnaby	
Capital	18 North Shore	44 North Vancouver	45 West Vancouver
	19 Richmond	38 Richmond	
Fraser Valley	20 Capital	61 Greater Victoria	63 Saanich
		62 Sooke	64 Gulf Islands
	6 Fraser Valley	32 Hope	75 Mission
Okanagan		33 Chilliwack	76 Agassiz - Harrison
		34 Abbotsford	
	3 North Okanagan	19 Revelstoke	22 Vernon
		20 Salmon Arm	78 Enderby
		21 Armstrong-Spallumcheen	
	4 South Okanagan - Similkameen	14 Southern Okanagan	17 Princeton
South-East		15 Penticton	23 Central Okanagan
		16 Keremeos	77 Summerland
	1 East Kootenay	1 Fernie	4 Windermere
		2 Cranbrook	5 Creston
		3 Kimberley	18 Golden
	2 West Kootenay - Boundary	6 Kootenay Lake	11 Trail
Island Coast		7 Nelson	12 Grand Forks
		9 Castlegar	13 Kettle Valley
		10 Arrow Lakes	
	9 Coast Garibaldi	46 Sunshine Coast	48 Howe Sound
		47 Powell River	
	10 Central Vancouver Island	65 Cowichan	68 Nanaimo
Central		66 Lake Cowichan	69 Qualicum
		67 Ladysmith	70 Alberni
	11 Upper Island/Central Coast	71 Courtenay	84 Vancouver Island West
		72 Campbell River	85 Vancouver Island North
		83 Central Coast	
North Central	5 Thompson	24 Kamloops	30 South Cariboo
		26 North Thompson	31 Merritt
		29 Lillooet	
North	12 Cariboo	25 100 Mile House	28 Quesnel
		27 Cariboo - Chilcotin	49 Bella Coola Valley
	13 North West	50 Queen Charlotte	80 Kitimat
		51 Snow Country	87 Stikine
		52 Prince Rupert	88 Terrace
		53 Upper Skeena	92 Nisga'a
North		54 Smithers	94 Telegraph Creek
	15 Northern Interior	55 Burns Lake	57 Prince George
		56 Nechako	
North	14 Peace Liard	59 Peace River South	81 Fort Nelson
		60 Peace River North	

Source: Boundary Conversion Steering Committee, British Columbia Ministry of Health

05/97

Communities Which Have Changed Local Health Areas and Health Regions as a Result of the 1997 Boundary Changes¹

Community	Prior Local Health Area	Revised 1997 Local Health Area	Prior Health Region	Revised 1997 Health Region
Ferguson	19 - Revelstoke	10 - Arrow Lakes	North Okanagan	West Kootenay-Boundary
Anglemont	20 - Salmon Arm	24 - Kamloops	North Okanagan	Thompson
Celista	20 - Salmon Arm	24 - Kamloops	North Okanagan	Thompson
Scotch Creek	20 - Salmon Arm	24 - Kamloops	North Okanagan	Thompson
70 Mile House	30 - South Cariboo	25 - 100 Mile House	Thompson Valley	Cariboo
Zeballos	84 - Vancouver Island West	85 - Vancouver Island North	Upper Island/Central Coast	Upper Island/Central Coast
Bridge Lake	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Buffalo Creek	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Canim Lake	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Eagle Creek	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Forest Grove	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Hendrix Lake	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Lac La Hache	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Lone Butte	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Mahood Falls	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
100 Mile House	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
108 Mile Ranch	27 - Cariboo-Chilcotin	25 - 100 Mile House	Cariboo	Cariboo
Anahim Lake	27 - Cariboo-Chilcotin	49 - Bella Coola Valley	Cariboo	Cariboo
Nimpo Lake	27 - Cariboo-Chilcotin	49 - Bella Coola Valley	Cariboo	Cariboo
Dawson's Landing	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Bella Bella	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Campbell Island	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Namu	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Ocean Falls	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Waglisla	49 - Central Coast	83 - Central Coast	Cariboo	Upper Island/Central Coast
Klemtu	80 - Kitimat	83 - Central Coast	North West	Upper Island/Central Coast
Hazelton	88 - Terrace	53 - Upper Skeena	North West	North West
New Hazelton	88 - Terrace	53 - Upper Skeena	North West	North West
South Hazelton	88 - Terrace	53 - Upper Skeena	North West	North West
Meziadin Lake	88 - Terrace	51 - Snow Country	North West	North West
Alice Arm	88 - Terrace	51 - Snow Country	North West	North West
Stewart	88 - Terrace	51 - Snow Country	North West	North West
Ware	60 - Peace River North	57 - Prince George	Peace River-Liard	Northern Interior
Topley	55 - Burns Lake/Eutsuk Lake	54 - Smithers	Northern Interior	North West

¹ Beginning in 1995, a process of regionalization began in B.C. Between that time and the present, December 1997, new health authority regions have been created. These include the current eleven Regional Health Boards (RHB's), the thirty-four Community Health Councils (CHC's), and the seven Community Health Services Societies (CHSS's). The geographic boundaries of the various new health authority regions could no longer easily be translated to the existing Local Health Area (LHA) and Health Region (HR) boundaries, so the LHA's and HR's were revised in the spring of 1997.

APPENDIX B

POPULATION ESTIMATES FOR
BRITISH COLUMBIA BY HEALTH REGION

Table 1
Population Estimates^{1,2} for British Columbia
by Health Region
1995 and 1997

Health Region	1995	1997	Percent Change
1 East Kootenay	76,670	79,610	3.83
2 West Kootenay-Boundary	79,625	81,432	2.27
3 North Okanagan	110,416	115,635	4.73
4 South Okanagan-Similkameen	215,179	224,114	4.15
5 Thompson	125,423	131,956	5.21
6 Fraser Valley	222,851	233,830	4.93
7 South Fraser Valley	521,274	550,229	5.55
8 Simon Fraser	289,384	306,475	5.91
9 Coast Garibaldi	69,975	75,268	7.56
10 Central Vancouver Island	227,267	237,487	4.50
11 Upper Island/Central Coast	114,920	120,079	4.49
12 Cariboo	70,115	74,778	6.65
13 North West	87,703	90,751	3.48
14 Peace Liard	62,373	65,159	4.47
15 Northern Interior	125,104	130,236	4.10
16 Vancouver	527,315	551,320	4.55
17 Burnaby	181,380	187,422	3.33
18 North Shore	172,683	176,692	2.32
19 Richmond	147,988	157,058	6.13
20 Capital	326,335	332,015	1.74
TOTAL	3,753,980	3,921,546	4.46

¹ Source: B.C. Local Health Area Population Estimates by Five Year Age Group and Gender 1976-1997, dated April 1998, prepared by the Population Section, B.C. Stats, Ministry of Finance and Corporate Relations.

² These population estimates are the most recent available and reflect the 1997 boundary revisions to Local Health Areas and Health Regions by the Ministry of Health. The population projections (from the P.E.O.P.L.E. projection models) normally used for *ROLLCALL* will not be available until late July 1998.

Table 1a
Population Estimates^{1,2} for British Columbia
by Health Region
1996

Health Region	1996
1 East Kootenay	78,267
2 West Kootenay-Boundary	80,806
3 North Okanagan	112,978
4 South Okanagan-Similkameen	218,769
5 Thompson	129,032
6 Fraser Valley	229,154
7 South Fraser Valley	537,321
8 Simon Fraser	299,414
9 Coast Garibaldi	72,288
10 Central Vancouver Island	231,238
11 Upper Island/Central Coast	117,293
12 Cariboo	72,284
13 North West	89,216
14 Peace Liard	64,011
15 Northern Interior	127,662
16 Vancouver	541,316
17 Burnaby	185,364
18 North Shore	175,026
19 Richmond	153,369
20 Capital	328,839
TOTAL	3,843,647

¹ Source: B.C. Local Health Area Population Estimates by Five Year Age Group and Gender 1976-1997, dated April 1998, prepared by the Population Section, B.C. Stats, Ministry of Finance and Corporate Relations.

² These population estimates are the most recent available and reflect the 1997 boundary revisions to Local Health Areas and Health Regions by the Ministry of Health. The population projections (from the P.E.O.P.L.E. projection models) normally used for *ROLLCALL* will not be available until late July 1998.

Table 2
Population Estimates^{1,2} in British Columbia
by Health Region by Age and Sex
1997

Health Region	< 25		25-34		35-44		45-54		55-64		65 +		Subtotal		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1 East Kootenay	13,942	13,114	5,005	5,127	6,850	6,733	5,776	5,349	3,887	3,587	4,792	5,448	40,252	39,358	79,610
2 West Kootenay/Boundary	13,467	12,677	4,583	4,834	6,960	7,081	6,067	5,638	3,984	3,951	5,665	6,525	40,726	40,706	81,432
3 North Okanagan	19,188	18,127	6,630	6,884	9,234	9,737	7,653	7,708	5,842	5,909	8,751	9,972	57,298	58,337	115,635
4 South Okanagan - Similkameen	33,597	32,712	13,413	13,977	16,742	17,669	13,566	14,198	10,866	11,674	21,172	24,528	109,356	114,758	224,114
5 Thompson	23,797	22,497	8,932	9,173	11,087	11,164	9,309	8,858	6,218	5,890	7,022	8,009	66,365	65,591	131,956
6 Fraser Valley	42,872	40,643	17,447	16,938	18,773	18,069	13,479	12,962	9,099	9,442	15,487	18,619	117,157	116,673	233,830
7 South Fraser Valley	98,571	94,392	41,494	41,888	46,460	46,731	37,078	36,451	22,120	21,605	27,932	35,507	273,655	276,574	550,229
8 Simon Fraser	52,333	49,517	26,178	26,293	29,376	28,985	20,969	19,984	11,691	11,484	12,271	17,394	152,818	153,657	306,475
9 Coast Garibaldi	12,579	11,434	6,285	5,518	6,923	5,851	5,563	4,212	3,413	2,741	3,634	7,115	38,397	36,871	75,268
10 Central Vancouver Island	38,569	37,093	14,357	14,848	19,136	19,760	16,344	15,814	11,560	11,507	17,894	20,605	117,860	119,627	237,487
11 Upper Island/Central Coast	21,360	20,417	8,246	8,264	10,928	10,839	8,951	8,120	5,623	4,982	5,783	6,566	60,891	59,188	120,079
12 Cariboo	14,320	13,604	5,188	5,319	6,546	6,344	5,472	4,937	3,430	2,979	3,375	3,264	38,331	36,447	74,778
13 North West	18,901	17,684	7,548	7,249	8,327	7,714	6,220	5,183	3,337	2,809	2,904	2,875	47,237	43,514	90,751
14 Peace Liard	13,577	12,996	5,723	5,475	6,053	5,483	3,785	3,443	2,327	2,015	2,144	2,138	33,609	31,550	65,159
15 Northern Interior	26,236	25,044	10,774	10,652	11,718	11,270	8,772	7,922	5,141	4,095	4,387	4,225	67,028	63,208	130,236
16 Vancouver	74,272	73,916	63,108	60,754	48,163	47,134	36,600	35,753	22,652	22,503	27,961	38,504	272,756	278,564	551,320
17 Burnaby	28,445	27,605	18,184	17,158	15,838	15,777	12,206	12,528	8,132	8,397	9,708	13,444	92,513	94,909	187,422
18 North Shore	26,712	25,990	11,678	12,682	14,884	16,458	13,707	14,416	8,497	8,668	9,754	13,246	85,232	91,460	176,692
19 Richmond	26,674	24,993	11,946	12,449	13,194	14,804	12,041	12,602	6,788	6,883	6,079	8,605	76,722	80,336	157,058
20 Capital	47,386	47,091	24,761	24,727	25,849	27,848	22,508	23,355	13,656	14,729	25,401	34,704	159,561	172,454	332,015
TOTAL	646,798	621,546	311,480	310,209	333,041	335,451	266,066	259,433	168,263	165,850	222,116	281,293	1,947,764	1,973,782	3,921,546

¹ Source: B.C. Local Health Area Population Estimates by Five Year Age Group and Gender 1976-1997, dated April 1998, prepared by the Population Section, B.C. Stats, Ministry of Finance and Corporate Relations.

² These population estimates are the most recent available and reflect the 1997 boundary revisions to Local Health Areas and Health Regions by the Ministry of Health. The population projections (from the P.E.O.P.L.E. projection models) normally used for *ROLLCALL* will not be available until late July 1998.

APPENDIX C

HOSPITAL BED CAPACITY IN BRITISH COLUMBIA BY HEALTH REGION

Table 1a
Approved Hospital Bed Capacity^{1,2} in British Columbia
by Health Region
March 1995³ and March 1997

Health Region	Acute Care												Rehabilitation		Total	
	Med/Surg		ICU/CCU		Rehab Unit		Psychiatry		Paediatrics/ Maternity/NICU		Subtotal ⁴		Extended Care		Hospital	Total
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997		
1 East Kootenay	184	158	6	6	0	0	10	10	48	38	248	212	113	113	0	361
2 West Kootenay - Boundary	180	160	8	7	9	9	12	12	45	26	254	214	244	244	0	498
3 North Okanagan	182	199	10	10	0	0	13	13	54	47	259	269	317	305	0	576
4 South Okanagan - Similkameen	419	425	20	20	60	53	43	43	62	56	604	597	559	635	0	1,163
5 Thompson ⁵	245	230	11	11	15	10	26	26	73	63	370	346	249	249	0	619
6 Fraser Valley	297	270	22	22	6	6	34	34	89	68	448	400	601	601	0	1,049
7 South Fraser Valley	556	553	27	25	10	10	61	67	94	93	748	748	801	801	0	1,549
8 Simon Fraser	513	472	30	30	20	15	44	44	113	104	720	665	605	607	0	1,325
9 Coast Garibaldi	83	69	8	8	0	0	5	5	11	21	107	103	145	145	0	252
10 Central Vancouver Island	326	314	21	21	25	25	44	43	75	75	491	478	383	448	0	874
11 Upper Island/Central Coast	184	147	9	9	0	0	18	18	46	38	257	212	196	196	0	453
12 Cariboo	87	79	7	8	0	0	0	0	31	30	125	117	93	101	0	218
13 North West	124	159	13	13	0	0	10	10	77	34	224	216	93	66	0	317
14 Peace Liard ⁶	112	106	6	6	0	0	12	12	50	40	180	171	95	55	0	275
15 Northern Interior	196	175	10	10	15	15	30	30	74	65	325	295	86	86	0	411
16 Vancouver	1,362	1,317	164	162	17	17	189	184	412	377	2,144	2,057	1,631	1,594	242	4,017
17 Burnaby	214	179	12	12	0	0	0	0	30	25	256	216	472	472	0	728
18 North Shore	250	226	17	17	22	22	30	32	36	32	355	329	319	319	0	674
19 Richmond	178	156	12	10	0	0	14	14	34	30	238	210	232	216	0	470
20 Capital	646	642	41	41	70	93	108	103	113	113	978	992	1,383	1,375	45	2,406
TOTAL	6,338	6,036	454	448	269	275	703	700	1,567	1,375	9,331	8,847	8,617	8,628	287	18,235

¹ Source: Information & Analysis Branch, Information Management Group, B.C. Ministry of Health & Ministry Responsible for Seniors.

² Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.

³ The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

⁴ These acute care subtotals are equivalent to the "Acute Care Beds" column in previous editions of *ROLLCALL*.

⁵ The acute care subtotal for this region in 1997 includes 6 all-purpose beds which do not appear in the breakdown of acute care beds. These all-purpose beds are also included in the total for the region in 1997.

⁶ The acute care subtotal for this region in 1997 includes 7 all-purpose beds which do not appear in the breakdown of acute care beds. These all-purpose beds are also included in the total for the region in 1997.

Table 1b
Approved Hospital Bed Capacity^{1,2} in British Columbia
per 10,000 Population by Health Region
March 1995 and March 1997

Health Region	Acute Care												Rehabilitation					
	Med/Surg		ICU/CCU		Rehab Unit		Psychiatry		Paediatrics/ Maternity/NICU		Subtotal ³		Extended Care		Hospital		Total	
	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997	1995	1997
1 East Kootenay	24.00	19.85	0.78	0.75	0.00	0.00	1.30	1.26	6.26	4.77	32.35	26.63	14.74	14.19	0.00	0.00	47.08	40.82
2 West Kootenay - Boundary	22.61	19.65	1.00	0.86	1.13	1.11	1.51	1.47	5.65	3.19	31.90	26.28	30.64	29.96	0.00	0.00	62.54	56.24
3 North Okanagan	16.48	17.21	0.91	0.86	0.00	0.00	1.18	1.12	4.89	4.06	23.46	23.26	28.71	26.38	0.00	0.00	52.17	49.64
4 South Okanagan - Similkameen	19.47	18.96	0.93	0.89	2.79	2.36	2.00	1.92	2.88	2.50	28.07	26.64	25.98	28.33	0.00	0.00	54.05	54.97
5 Thompson	19.53	17.43	0.88	0.83	1.20	0.76	2.07	1.97	5.82	4.77	29.50	26.22	19.85	18.87	0.00	0.00	49.35	45.09
6 Fraser Valley	13.33	11.55	0.99	0.94	0.27	0.26	1.53	1.45	3.99	2.91	20.10	17.11	26.97	25.70	0.00	0.00	47.07	42.81
7 South Fraser Valley	10.67	10.05	0.52	0.45	0.19	0.18	1.17	1.22	1.80	1.69	14.35	13.59	15.37	14.56	0.00	0.00	29.72	28.15
8 Simon Fraser	17.73	15.40	1.04	0.98	0.69	0.49	1.52	1.44	3.90	3.39	24.88	21.70	20.91	19.81	0.00	0.00	45.79	41.50
9 Coast Garibaldi	11.86	9.17	1.14	1.06	0.00	0.00	0.71	0.66	1.57	2.79	15.29	13.68	20.72	19.26	0.00	0.00	36.01	32.95
10 Central Vancouver Island	14.34	13.22	0.92	0.88	1.10	1.05	1.94	1.81	3.30	3.16	21.60	20.13	16.85	18.86	0.00	0.00	38.46	38.99
11 Upper Island/Central Coast	16.01	12.24	0.78	0.75	0.00	0.00	1.57	1.50	4.00	3.16	22.36	17.66	17.06	16.32	0.00	0.00	39.42	33.98
12 Cariboo	12.41	10.56	1.00	1.07	0.00	0.00	0.00	0.00	4.42	4.01	17.83	15.65	13.26	13.51	0.00	0.00	31.09	29.15
13 North West	14.14	17.52	1.48	1.43	0.00	0.00	1.14	1.10	8.78	3.75	25.54	23.80	10.60	7.27	0.00	0.00	36.14	31.07
14 Peace Liard	17.96	16.27	0.96	0.92	0.00	0.00	1.92	1.84	8.02	6.14	28.86	26.24	15.23	8.44	0.00	0.00	44.09	34.68
15 Northern Interior	15.67	13.44	0.80	0.77	1.20	1.15	2.40	2.30	5.92	4.99	25.98	22.65	6.87	6.60	0.00	0.00	32.85	29.25
16 Vancouver	25.83	23.89	3.11	2.94	0.32	0.31	3.58	3.34	7.81	6.84	40.66	37.31	30.93	28.91	4.59	4.39	76.18	70.61
17 Burnaby	11.80	9.55	0.66	0.64	0.00	0.00	0.00	0.00	1.65	1.33	14.11	11.52	26.02	25.18	0.00	0.00	40.14	36.71
18 North Shore	14.48	12.79	0.98	0.96	1.27	1.25	1.74	1.81	2.08	1.81	20.56	18.62	18.47	18.05	0.00	0.00	39.03	36.67
19 Richmond	12.03	9.93	0.81	0.64	0.00	0.00	0.95	0.89	2.30	1.91	16.08	13.37	15.68	13.75	0.00	0.00	31.76	27.12
20 Capital	19.80	19.34	1.26	1.23	2.15	2.80	3.31	3.10	3.46	3.40	29.97	29.88	42.38	41.41	1.38	0.00	73.73	71.29
TOTAL	16.88	15.39	1.21	1.14	0.72	0.70	1.87	1.79	4.17	3.51	24.86	22.56	22.95	22.00	0.76	0.62	48.58	45.18

¹ Source: Information & Analysis Branch, Information Management Group, B.C. Ministry of Health & Ministry Responsible for Seniors.

² Bassinets are not included in *ROLLCALL 97* because of reporting problems contributing to data unavailability.

³ These acute care subtotals are equivalent to the "Acute Care Beds" column in previous editions of *ROLLCALL*.

Table 1c
Average Annual Rate of Change¹: Approved Hospital Bed Capacity^{2,3} in British Columbia
by Health Region
March 1995 and March 1997

Health Region	Acute Care																Rehabilitation		Total	
	Med/Surg		ICU/CCU		Rehab Unit		Psychiatry		Paediatrics/ Maternity/NICU		Subtotal ⁴		Extended Care		Hospital					
	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶	Number ⁵	Ratio ⁶		
1 East Kootenay	-7.33	-9.06	*	*	*	*	0.00	-1.86	-11.02	-12.68	-7.54	-9.27	0.00	-1.86	*	*	-5.12	-6.89		
2 West Kootenay - Boundary	-5.72	-6.77	*	*	*	*	0.00	-1.12	-23.99	-24.84	-8.21	-9.24	0.00	-1.12	*	*	-4.10	-5.17		
3 North Okanagan	4.57	2.18	0.00	-2.28	*	*	0.00	-2.28	-6.71	-8.84	1.91	-0.41	-1.91	-4.15	*	*	-0.17	-2.45		
4 South Okanagan - Similkameen	0.71	-1.31	0.00	-2.01	-6.01	-7.91	0.00	-2.01	-4.96	-6.88	-0.58	-2.58	6.58	4.44	*	*	2.92	0.85		
5 Thompson	-3.11	-5.54	0.00	-2.51	-18.35	-20.40	0.00	-2.51	-7.10	-9.43	-3.30	-5.72	0.00	-2.51	*	*	-1.96	-4.42		
6 Fraser Valley	-4.65	-6.92	0.00	-2.38	*	*	0.00	-2.38	-12.59	-14.67	-5.51	-7.75	0.00	-2.38	*	*	-2.31	-4.64		
7 South Fraser Valley	-0.27	-2.93	-3.77	-6.34	0.00	-2.67	4.80	2.01	-0.53	-3.19	0.00	-2.67	0.00	-2.67	*	*	0.00	-2.67		
8 Simon Fraser	-4.08	-6.79	0.00	-2.83	-13.40	-15.85	0.00	-2.83	-4.06	-6.78	-3.90	-6.61	0.17	-2.67	*	*	-2.02	-4.79		
9 Coast Garibaldi	-8.82	-12.09	*	*	*	*	*	*	38.17	33.22	-1.89	-5.40	0.00	-3.58	*	*	-0.80	-4.35		
10 Central Vancouver Island	-1.86	-3.99	0.00	-2.18	0.00	-2.18	-1.14	-3.29	0.00	-2.18	-1.33	-3.48	8.15	5.80	*	*	2.93	0.69		
11 Upper Island/Central Coast	-10.62	-12.56	*	*	*	*	0.00	-2.17	-9.11	-11.08	-9.18	-11.15	0.00	-2.17	*	*	-5.10	-7.16		
12 Cariboo	-4.71	-7.73	*	*	*	*	*	*	-1.63	-4.74	-3.25	-6.32	4.21	0.91	*	*	0.00	-3.17		
13 North West	13.24	11.32	0.00	-1.69	*	*	0.00	-1.69	-33.55	-34.68	-1.80	-3.47	-15.76	-17.18	*	*	-5.68	-7.28		
14 Peace Liard	-2.72	-4.82	*	*	*	*	0.00	-2.16	-10.56	-12.49	-2.53	-4.64	-23.91	-25.56	*	*	-9.35	-11.31		
15 Northern Interior	-5.51	-7.39	0.00	-1.99	0.00	-1.99	0.00	-1.99	-6.28	-8.14	-4.73	-6.62	0.00	-1.99	*	*	-3.72	-5.63		
16 Vancouver	-1.67	-3.83	-0.61	-2.80	0.00	-2.20	-1.33	-3.50	-4.34	-6.45	-2.05	-4.21	-1.14	-3.32	0.00	-2.20	-1.56	-3.72		
17 Burnaby	-8.54	-10.03	0.00	-1.63	*	*	*	*	-8.71	-10.20	-8.14	-9.64	0.00	-1.63	*	*	-2.79	-4.37		
18 North Shore	-4.92	-6.01	0.00	-1.14	0.00	-1.14	3.28	2.10	-5.72	-6.79	-3.73	-4.83	0.00	-1.14	*	*	-1.95	-3.07		
19 Richmond	-6.38	-9.13	-8.71	-11.39	*	*	0.00	-2.93	-6.07	-8.82	-6.07	-8.82	-3.51	-6.34	*	*	-4.80	-7.59		
20 Capital	-0.31	-1.17	0.00	-0.86	15.26	14.27	-2.34	-3.18	0.00	-0.86	0.71	-0.15	-0.29	-1.15	-100.00	-100.00	-0.81	-1.67		
TOTAL	-2.41	-4.52	-0.66	-2.81	1.11	-1.07	-0.21	-2.37	-6.33	-8.35	-2.63	-4.73	0.06	-2.10	-8.17	-10.16	-1.43	-3.56		

¹ A 24 month rate of change has been adjusted to an average annual figure.

² Source: Information & Analysis Branch, Information Management Group, B.C. Ministry of Health & Ministry Responsible for Seniors.

³ Bassinets are not included in *ROLLCALL* 97 because of reporting problems contributing to data unavailability.

⁴ These acute care subtotals are equivalent to the "Acute Care Beds" column in previous editions of *ROLLCALL*.

⁵ Rate of change (in percent) in the number.

⁶ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

APPENDIX D

COMMUNITY PHARMACIES IN
BRITISH COLUMBIA BY HEALTH REGION

Table 1
Community Pharmacies¹ in British Columbia
by Health Region
September 1995² and April 1998

Health Region	Number		Number per 10,000 Population		Average Annual Rate of Change ³	
	1995	1998	1995	1998	Number ⁴	Ratio ⁵
1 East Kootenay	11	13	1.43	1.63	6.91	5.32
2 West Kootenay - Boundary	21	21	2.63	2.57	0.00	-0.88
3 North Okanagan	19	18	1.72	1.55	-2.14	-3.92
4 South Okanagan - Similkameen	38	43	1.76	1.91	5.07	3.38
5 Thompson	22	22	1.75	1.66	0.00	-2.00
6 Fraser Valley	34	40	1.52	1.71	6.72	4.69
7 South Fraser Valley	76	84	1.45	1.52	4.08	1.87
8 Simon Fraser	40	45	1.38	1.46	4.82	2.46
9 Coast Garibaldi	18	18	2.56	2.38	0.00	-2.86
10 Central Vancouver Island	43	45	1.89	1.89	1.84	0.07
11 Upper Island/Central Coast	17	21	1.47	1.74	8.82	6.93
12 Cariboo	12	13	1.71	1.73	3.25	0.64
13 North West	16	15	1.82	1.65	-2.55	-3.86
14 Peace Liard	9	10	1.44	1.53	*	*
15 Northern Interior	18	23	1.43	1.76	10.30	8.55
16 Vancouver	125	121	2.36	2.19	-1.29	-3.02
17 Burnaby	30	31	1.65	1.65	1.32	0.01
18 North Shore	28	28	1.62	1.58	0.00	-0.90
19 Richmond	21	22	1.41	1.40	1.88	-0.51
20 Capital	61	64	1.86	1.92	1.94	1.25
TOTAL	659	697	1.75	1.77	2.27	0.51

¹ Includes retail pharmacies only. Hospital pharmacies are excluded. Source: College of Pharmacists of B.C.

² The 1995 numbers for some regions may differ slightly from those published in *ROLLCALL 95* due to the recent boundary changes made to some health regions. Please see the Introduction and Appendix A for further details.

³ A 30 month rate of change has been adjusted to an average annual figure.

⁴ Rate of change (in percent) in the number.

⁵ Rate of change (in percent) in the number per 10,000 population.

* Indicates that the base for the rate of change is less than 10.

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