

# ASSESS AND INTERVENE

## Report to the Minister of Health on the Recruitment and Retention of Registered Nurses and Registered Psychiatric Nurses in British Columbia

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## EXECUTIVE SUMMARY

There is a shortage of Registered Nurses (RNs) and Registered Psychiatric Nurses (RPNs) in BC, and the problem will escalate unless there is immediate action to increase the supply.

In 1997, the Canadian Nurses' Association<sup>1</sup> (CNA) predicted that Canada – and most other countries – would soon face a shortage of RNs. In the last 18 months the predicted shortage has become a reality. The CNA concluded that the factors leading inexorably to a shortage include: a large cohort of nurses approaching retirement, declining numbers of new graduates, an aging population, and insufficient health human resource planning.

All of these factors are present in BC.

- ◆ In the short/medium term (within the next 6 years), 30% of the current RN/RPN workforce will be over 55 years old. Many of these nurses will retire during this period. Moreover, the problem does not resolve itself in the longer term – in fact the situation potentially gets worse. Almost two thirds of all RNs and RPNs in the province are aged 40 or over. In 1999 the largest five-year cohort of nurses was between ages 40 and 44, which means that the retirement impact of nurse workforce demographics will continue to grow for the next 20 years.
- ◆ When surveyed in late 1999, there were 860 vacant nurse positions that had not been filled for at least 3 months, despite active recruitment. At the current rate of adding to the nurse workforce, health authorities will not be able achieve full staffing levels this year or next – and thereafter the number of nurses will decrease.

Historically, BC has relied on net immigration and inter-provincial migration for about half of its nursing workforce. In other words, we have trained only about half of the nurses needed for our health system. Because of the inter-provincial and international nature of the nursing shortage, it is unlikely that we will be able to significantly improve the net gain in nurses from outside the province for the near and medium term future. The only potential method to increase the supply of nurses sufficiently to come close to maintaining the present nurse/population ratio is to dramatically increase basic nursing education opportunities within the province.

We currently graduate about 700 RNs and RPNs annually. Another 400 nursing education seats are planned for the immediate future. However, that planned addition will not address the current shortage of nurses and the addition of more nursing education seats for future needs will be required.

- ◆ Meanwhile, the population of the province is ageing. According to Statistics Canada, BC already has a relatively “old” population in Canadian terms: 12.9% over age 60 compared to the 12.4% Canadian average. That percentage is forecast (by BC Stats) to increase to 13.2% by 2005. The “frail elderly” category (indicated by the number of people 80 years and older) is expected to increase by 31% in the next six years. Not surprisingly, this group uses health services at a very intense rate compared to the rest of the population. For example, 80 to 84 year-old seniors use the health system (in dollar terms) at almost 3 times the rate of 60 to 64 year-olds; and 85+ seniors use the system at twice the rate of 80 to 84 year-olds.
- ◆ In terms of health human resource planning, BC has done a better job than most other jurisdictions. In Ontario, for example, approximately 6,000 nurses were laid off between 1994 and 1997. Many of those nurse left the country (because there was little hiring in the rest of Canada), and many have settled into careers in the US. Three years later, Ontario now realizes it has a major shortage. It recently increased wages and benefits, and is desperately trying to repatriate the departed nurses.

In contrast, BC attempted to manage downsizing without layoffs using a variety of measures coordinated by the Healthcare Labour Adjustment Agency (HLAA). The Health Employers Association of BC (HEABC) was established, in part to better co-ordinate health human resources (HHR). HEALTH MATCH BC is another agency established to better match supply and demand.

Additionally, the Ministry of Health and Ministry Responsible for Seniors (MOH) has been involved in various efforts to gather information and promote HHR planning, including the formation of a provincial Health Human Resources Advisory Committee (see Appendix 1). The Committee supports these initiatives, and makes some recommendations to enhance the role of HHR planning.

This report (the “Report”) examines the general problem of nursing shortages. It also looks at the particular nature and dimension of the problem in specific settings, such as rural and remote communities and in specialty areas. Various potential measures to enhance retention and recruitment are canvassed. The Report makes 34 recommendations intended to help alleviate the current and anticipated shortages. These include recommendations with respect to:

- the need to address work-related causes of injury and illness;
- the need for better information about applicants, admissions, graduates and other aspects of the education system’s role in the supply of the nurse workforce;
- the potential for establishing a co-op nursing program;
- support for the diploma as an entry level qualification for nursing practice;
- support for preceptorships and mentoring;
- the expanded use of prior learning assessment and recognition;
- promotion of distance and on-site education for communities around the province;

- creation of an Aboriginal nurses' entry program;
- the public image of nursing as a potential career;
- support for HEALTH MATCH BC;
- support for structures of nursing management to ensure appropriate positions of nursing leadership;
- promotion of best practices for nurse recruitment and retention; and
- the importance of reliable information and quality HHR modelling, analysis and planning.

The most important recommendations, in terms of potential effect on the nursing shortage, are those that would increase basic nursing educational opportunities for BC residents to become RNs and RPNs.

## 1. INTRODUCTION

In the last year there have been numerous anecdotal reports of nursing shortages from around the province and similar reports from other jurisdictions. Against this backdrop a 1997 CNA study<sup>2</sup> predicting significant nursing shortages began to receive serious consideration. Based on the demographics of the nurse workforce and increasing evidence, the MOH, HEABC and the Nurses' Bargaining Association (NBA)<sup>3</sup> each concluded that BC had a shortage of RNs and RPNs, and that absence of action would result in a worsening of the problem.

In 1999, the HEABC, the NBA and the Government of British Columbia (represented principally by the MOH) entered into the *Public Sector Accord on Recruitment and Retention of Registered Nurses and Registered Psychiatric Nurses in BC's Health Care System* (the "Accord") (see Appendix 2).

The Accord incorporated the following points of agreement:

- Recognition that a nursing shortage is occurring now and that absence of action will result in worsening of the problem.
- There are important advantages in a co-operative approach to developing policy solutions for the challenges facing nursing in the coming decade.
- Technological, organizational and demographic change are giving rise to the need for ongoing training and upgrading of nursing skills, particularly in specialized areas.
- Particular challenges exist in recruitment and retention of nurses in rural and northern BC.
- The profession of nursing is facing increasing competition from other occupational choices for young people.
- There is a need for the development of a comprehensive approach to nursing human resource planning.

The objectives of the Accord are to:

- Examine, assess and develop policy solutions for recruitment, retention and deployment of nurses.
- Develop or refine databases for tracking the entry, exit, training, career development, deployment and allocation of nurses within the BC health care system.
- Address specialty nursing shortages and rural and northern nursing shortages.
- Identify additional opportunities to develop and enhance the skills of BC's nurses.
- Identify what needs to be done to encourage young people to consider nursing a desirable career choice.

The parties to the Accord agreed items such as workload, working conditions and compensation are issues for collective bargaining and would only be discussed in the Report for the purposes of policy development.

As directed by the Accord, a committee (the “Committee”) was established and held monthly meetings beginning in April 1999. The meetings were co-chaired by Cathy Ferguson, President of the British Columbia Nurses’ Union (BCNU) and spokesperson of the NBA and Gary Moser, CEO of HEABC. The NBA and HEABC each had two additional members<sup>4</sup> on the Committee. The MOH was also represented<sup>5</sup> and provided secretariat services to the Committee. The Ministry of Advanced Education, Training and Technology (MAETT) and the Hospital Employees’ Union attended in observer roles.<sup>6</sup> During the monthly meetings Committee members discussed issues, initiatives and strategies. They also received written submissions and oral presentations from a number of interested groups and individuals.

In June 1999, the Committee presented the Minister of Health (the “Minister”) with some initial recommendations and these were reaffirmed in the Interim Report that was delivered to the Minister in October 1999 (see Appendix 3). Those recommendations included an additional 400 nursing seats, a fund be established which employers could access for clinical placement needs, funding be provided for two teaching ward pilot projects, and support for a research team to assist the Committee.

The Committee established a research project team<sup>7</sup> (the “Research Team”) to compile and analyze existing information and submissions; request additional information and conduct original research through surveys sent to all health authorities and BCNU members; propose recommendations for the Committee’s consideration and draft a final report.

The issue of recruitment and retention of nurses needs careful review and a strategic plan in order to be successful. The Committee is pleased to report to the Minister the view of its members that the process has been constructive and solution-oriented. Throughout, the Committee has done its best to remain true to the “big picture”: the public interest in the effective delivery of health care.

The parties to the Accord will continue to have some differences. In particular the NBA and HEABC will continue to differ with respect to collective bargaining issues, some of which may also have implications for recruitment and retention. There is a time, place and process outside of this Accord to address those issues. However, it is a sign of the maturity of the parties’ relationship that the Committee members can recognize this and proceed to work together on an issue that transcends their different perspectives. The Committee’s ability to work together is reflected in the joint analysis and recommendations which we believe make a positive contribution toward understanding and working to resolve the current shortage of RNs and RPNs.

No single intervention and no single party will be able to successfully deal with the shortage of nurses. The recommendations are intended to be complementary parts of a human resource strategy. Our assessment leads to a clear conclusion: there is an urgent need for the kind of intervention set out in our recommendations. We welcome the opportunity to be part of the solution.



## **2. HEALTH CARE ENVIRONMENT**

### ***A Changing System***

The provincial government dedicates over half of its budget to health care and the system employs over 100,000 British Columbians. The BC health care system has experienced tremendous changes throughout the last decade. Health care reform promoted a shift from a primarily institutional based system to a more diverse system that delivers care in a wide range of settings. Prevention of illness and promotion of healthier lifestyles is one of the stated aims of health care reform.

BC's health care system is under increasing pressure from escalating costs, increasing demands and expectations from both consumers and professionals, the aging general and health professional populations, advanced technology, and ethical issues associated with advanced technology.

Nurses represent the largest single group of professionals within the health care workforce. Health care system restructuring and significant changes within society have had, and continue to have, an effect on nurses and nursing services.

### ***Description of Regionalization***

Under BC's regionalized health system, introduced in 1997/98, responsibility for the direct delivery and management of most health services has been transferred from the MOH to local health authorities: 11 regional health boards (RHB), 33 community health councils (CHC), and 7 community health services societies (CHSS) (see Appendix 4). The broad categories of services that health authorities are responsible for include: acute care, continuing care residential services, and continuing care community services (which include public health, home care nursing, home support and mental health).

Health authorities are funded by the MOH and have an obligation to provide health services to their communities. Services are provided directly by the health authority and through affiliation or contractual arrangements with other agencies/providers. Subsets of health authorities have contractual agreements with the MOH to provide tertiary specialized services. The mandate of health authorities includes identifying their population's needs, targeting those in need of additional services, identifying inappropriate services or methods of service provision, and implementing cost-effective service delivery methods.<sup>8</sup>

### ***Health Service Delivery***

#### **◆ *Acute Care Services***

The utilization rates of acute care services have decreased over the past ten years as reflected in Table 1. For example, from 1990/91 to 1998/99, utilization case rates<sup>9</sup> for acute care inpatient cases decreased from 130 to 98 per 1,000 population. The total utilization rate for inpatient acute and rehabilitation services decreased from 944 per 1,000 population in 1990/91 to 586 per 1,000 population in 1998/99, with the rehab day statistics showing a decline from 38 to 14.

**Table 1: Acute Care Utilization Rates Per 1000 Population**

A/C Utilization	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99
A/C Inpatient Case Rate	130	129	122	119	114	110	106	103	98
A/C Inpatient Days Rate	906	872	805	768	708	658	629	605	572
Rehab Days Rate	38	33	24	23	17	16	28	15	14
Day Procedure Case Rate	63	66	65	67	69	68	69	67	64
ALC Days Rate	67	56	51	42	42	43	49	58	66

Source: Ministry of Health (various years) *Health Discharges Abstract Database*.<sup>10</sup>

Of note is the return to 1990/91 levels in alternate level of care (ALC) rates. ALC patients have been assessed as no longer needing active acute care treatment but remain in acute care beds. The majority are waiting to be admitted to a residential long-term care facility or will eventually return to a private residence. ALC patients are often frail elderly individuals and the provision of ALC services within an acute care setting requires different nursing and support care services than other acute care services.

From 1990/91 to 1998/99 acute care day surgery cases increased by 50,623 (24%) while inpatient acute surgical cases decreased by 93,666 (-29%). This change reflects several factors including a shift in practice from inpatient acute admissions to increased use of day surgery. When considering the sum of acute day surgery and inpatient acute surgical cases there has been a decrease of 43,043 cases (-8%) between 1990/91 and 1998/99.

**Table 2: Day Surgery Cases and Inpatient Acute Surgical Cases<sup>11</sup>**

Year	Day Surgery		Inpatient Acute Surgical		Totals	
	Cases	Index 1990/91 =100	Cases	Index 1990/91 =100	Cases	Index 1990/91 =100
1990/91	208,308	100	320,517	100	528,825	100
1991/92	222,024	107	322,458	101	544,482	103
1992/93	227,675	109	312,889	98	540,564	102
1993/94	239,241	115	265,488	83	504,729	95
1994/95	252,041	121	256,013	80	508,054	96
1995/96	260,737	125	245,752	77	506,489	96
1996/97	265,253	127	237,732	74	502,985	95
1997/98	264,043	127	235,579	73	499,622	94
1998/99	258,931	124	226,851	71	485,782	92

Source: Ministry of Health (various years). *Health Discharges Abstract Database*<sup>12</sup>

◆ *Continuing Care Services: Residential and Community*

There has been a significant shift in residential care since 1990/91 towards higher levels of professional and nonprofessional care of residents who have increased complexity of health care needs. Although the overall growth in residential care is modest, the shift in intensity of care needs has required a significant increase in financial and human resources.

A range of residential care services is provided in large and small residential facilities, extended care units in acute care facilities, as well as in private homes and group homes. Continuing care community based services include Home Support, Direct Care Services and Adult Day Centers. Although residential care admissions have risen in number, the actual physical bed capacity of the facilities limit the number of individuals who can access these services.

Continuing Care clients are individuals who are assessed at levels of care ranging from Personal Care (PC: individuals who require minimal non-professional assistance or supervision) to Intermediate Care (IC: individuals, divided into three subcategories – IC1, IC2, IC3 – who require some combination of professional and non-professional services) to Extended Care (EC: individuals who need 24-hour nursing care and supervision, but not acute care hospitalization).

**Table 3: Residential Care Days (in 1000s of Days) by Care Level: BC Totals**

Fiscal Year	PC	IC1	IC2	IC3	EC	Total	Utilization Rate/1000 population
1990/91	4,186	16,392	17,913	16,023	32,450	86,964	2642
1991/92	3,305	14,530	18,701	17,719	33,819	88,073	2611
1992/93	2,669	12,834	19,661	18,828	34,421	88,413	2548
1993/94	1,798	11,275	20,629	20,195	34,687	88,583	2480
1994/95	1,073	9,317	21,570	21,314	35,690	88,963	2416
1995/96	609	6,990	23,266	22,325	36,107	89,297	2360
1996/97	411	4,887	23,714	23,952	36,820	89,783	2313
1997/98	286	3,343	24,306	25,146	37,215	90,297	2280
1998/99	207	2,222	23,905	25,985	37,696	90,015	2251
% change 1990-1999	-95%	-86%	+33%	+62%	+16%	+4%	-15%

Source: CC Warehouse, Summary Tables, September Refresh: 90/91-91/92 January Refresh<sup>13</sup>

Between 1990/91 and 1998/99 the utilization rate for residential care days per 1000 population decreased by 15% (see Table 3). PC and IC1 days decreased between 1990/91 to 1998/99, while IC2, IC3 and EC days increased significantly. These figures show increased acuity levels in residential facilities.<sup>14</sup>

The actual number of direct care nursing visits for discharged patient in their homes increased by 103,531 between 1990/91 to 1998/99; however, the utilization rate per 1,000 population decreased from 197 in 1990/91 to 187 in 1998/99.

**Table 4: BC Totals - Direct Care Nursing Visits for Discharges**

Fiscal Year	Nursing Visits	Utilization Rate Per 1000 Population	Index 1990/90 = 100 nursing visit
1990/91	650,289	197	100
1991/92	657,512	195	101
1992/93	704,534	203	108
1993/94	717,379	201	110
1994/95	702,796	191	108
1995/96	707,723	188	109
1996/97	758,898	197	117
1997/98	757,540	192	116
1998/99	753,820	187	116

Source: CC Warehouse, Summary Tables, September Refresh: 90/91 – 91/92 January Refresh<sup>15</sup>

◆ *Acuity Levels*

The period of health care reform, commenced in 1993 with a concerted effort to downsize acute care and move care “closer to home”. This led to a re-organization of health care services which initially saw a substantial reduction of nursing positions from the acute care system, both in general duty positions and in nursing management positions. The reduction of nurses in the acute care system was based on the belief that the number of nursing positions could be reduced to partly reflect the substantial decrease in patient days per 1000 population.

As discussed above, the duration of a hospital stay has been reduced considerably over the past decade. This has been due to a variety of factors, including advances in technology and the movement towards earlier discharge from hospital. This reduction in length of stay has led to increased acuity of those patients who remain in hospital. For example, on a surgical ward the assignment of patients to a nurse typically includes a mix of pre-operative, immediately acute post-operative and more independent convalescing post-operative patients. The group of relatively healthy pre-operative and convalescing post-operative patients generally requires less nursing care than the more acute immediately post-operative patients. Today, pre-operative and post-operative patients are occupying hospital beds for shorter lengths of time than they did in the past. As a result, current nursing assignments now have generally higher acuity level patients.

This increased acuity has had an effect in all health care sectors. In a poll conducted by McIntyre and Mustel for the BC Nurses’ Union in 1998, 81% of nurses said that patient/resident/client acuity levels had increased over the previous five years. Seventy-four percent felt the workload had increased.

The issue of workload was one of the major items in the parties’ 1998 collective bargaining discussions. The Workload and Service Framework Enhancement Agreement, entered into by the Province of BC, the NBA and the HEABC, came into effect with the ratification of the 1998-2001 Provincial Collective Agreement. That agreement provided \$50 million of new funding (in four increments over a two-year period) for nursing positions. Assessments of the effect of this funding are on-going.

◆ *Nurse-Population Ratios*

The BC ratio of RNs per 1,000 population is 7.0. When the totals of RNs and RPNs per 1,000 population are added together the ratio increases to 7.5 per 1,000 population, only slightly below the Canadian average of 7.6 per 1,000.

**Table 5: Number of RNs and RPNs employed in nursing and percentages per 1000 population**

Province	# of RNs Employed in Nursing	# of RNs per 1,000 Population Employed in Nursing	# of RPNs Employed in Nursing	# of combined RNs /RPNs per 1,000 Population Employed in Nursing
Canada	227,651	7.5	5,624	7.6
Atlantic*	22,598	9.5	--	9.5
Quebec	56,825	7.8	--	7.8
Ontario	78,825	6.9	--	6.9
Manitoba	10,185	8.9	1,024	9.8
Saskatchewan	8,455	8.3	1,200	9.4
Alberta	21,988	7.5	1,200	7.8
British Columbia	28,004	7.0	2,200	7.5
Yukon/NWT/Nun	771	7.8	--	7.8

\* includes combination of PEI, Nova Scotia, Newfoundland, New Brunswick

*RN Source:* Health Statistics Division, Statistics Canada. (1999). *Registered Nurses Management Data, 1998*. Ottawa.

*RPN Source:* BC - College of Registered Psychiatric Nurses of BC (Inventory Update, 1998), Manitoba - [www.rpnam.mb.ca](http://www.rpnam.mb.ca), Saskatchewan - [www.rpnas.com](http://www.rpnas.com), Alberta - [www.rpnaa.ab.ca](http://www.rpnaa.ab.ca).

◆ *Service Delivery Support Activities*

Many nurses express frustration about having to carry out duties (which nurses generally refer to as “non-nursing duties”) that they see could be effectively performed by other employees, so that the skills of RNs can be more appropriately utilized. The Committee agrees that the effective use of RNs, RPNs and all other health care workers is crucial to the provision of quality health care. Furthermore, it is an important factor in the retention and recruitment of nurses.

It is clear that the employment activities of an RN encompass a wide range of duties. These duties can comprise activities performed by nurses in the delivery of direct patient care, as well as support activities. The configuration of direct patient care and service delivery support activities varies due to a number of factors. Some of the factors include the type of service being provided (e.g. acute care, residential care, community care), the number of employees, the number of patients/residents/clients and the current state of health of their health, the geographic location of the worksite, the composition of staff, work assignments at the local level, and funding. Additionally, the delineation between the types of duties is not always clear. What in one circumstance may clearly be a service delivery support activity that does not utilize an RN in the most efficient and effective manner, may in another situation be important to the rendering of appropriate nursing care. For example, escorting a discharged patient to their car is not usually an efficient use of RN skills; however, there may be circumstances when it would be (e.g. when there is an opportunity to do appropriate education such as reinforce the benefits and proper use of an infant car seat with a new parent).

◆ *Compensation and Cost of Living*

Current wages and benefits paid to the overwhelming majority of RNs and many RPNs are governed by the Provincial Collective Agreement negotiated between HEABC and the NBA. Overall, the BC registered nurse compensation package is among the best in Canada. Hourly wages range, in six steps, from \$20.98 to \$25.98. Annual wages range from \$39,275 to \$48,634. Medical, extended health, dental coverage, long-term disability (LTD) and group life insurance for regular status nurses are 100% employer paid.

**Table 6: Canadian Nursing Wage and Employment Statistics, July 1999**

Province	Annual Minimum	Salary Maximum	Hourly Minimum	Rate Maximum	Number of Steps	Weekly Hours
Newfoundland	\$32,818	\$40,599	\$16.83	\$19.56+ pay equity \$1.26	7	37.5
Prince Edward Island	\$34,495	\$42,022	\$17.69	\$21.55	6	37.5
Nova Scotia	\$38,122	\$44,744	\$19.52	\$22.91	6	37.5
New Brunswick	\$37,114	\$41,890	\$18.96	\$21.40	6	36.25
Quebec	\$30,339	\$44,071	\$16.04	\$23.30	12	37.5
Ontario	\$35,685	\$55,302	\$18.30	\$28.36	9	37.5
Manitoba	\$38,875	\$45,811	\$19.28	\$22.74	5	38.75
Saskatchewan	\$37,592	\$45,679	\$19.29	\$23.44	6	37.5
Alberta	\$38,895	\$47,692	\$20.25	\$24.83	8	36.81
British Columbia	\$39,274	\$48,634	\$20.98	\$25.98	6	36
Govt.- Canada	\$46,176	\$47,580	\$23.68	\$24.40		37.5
PIPSC	\$40,443	\$52,630	\$20.74	\$26.99		
Yukon	\$49,159	\$56,745	\$25.21	\$29.10	4	37.5

Source: CNA, "Interprovincial RN Statistics Western Provinces," 1999<sup>16</sup>.

The Provincial Collective Agreement wage increase that takes effect on April 1, 2000 will raise the starting annual salary to \$40,214. Both Quebec and Ontario have negotiated collective agreement renewals since the above table was compiled. In the case of Ontario, wages have been increased substantially and there has been a reduction of increments from nine to eight.

Vacation entitlement provisions in BC compare favourably to other provinces.

**Table 7: Vacation – Years Required to Reach Entitlement**

Province/ Territory	Vacation Entitlement					
	20 Days	25 Days	30 Days	35 Days	40 Days	45 Days
BC	1 year	9 years	14 years	19 years	24 years	29 years
Alberta	2 years	10 years	20 years	N/A	N/A	N/A
Saskatchewan	4 years	20 years	30 years	N/A	N/A	N/A
Manitoba	4 years	11 years	21 years	N/A	N/A	N/A
Yukon	1 year	4 years	15 years	26 years	N/A	N/A
Ontario	3 years	14 years	23 years	N/A	N/A	N/A

Source: MOH

Under the Provincial Collective Agreement casual employees receive 12.2% in lieu of vacations and are entitled to enroll in medical, dental and extended health plans. Employers reimburse casual employees for benefit premiums after they work 940 annual hours. Casuals in temporary appointments have access to permanent job postings, ability to take vacation time off, accrue sick leave and are reimbursed for benefit premiums.

Relative cost of living is an important context for any comparison of employee salaries and benefits. Unfortunately, good cost of living comparisons are not readily available. Statistics Canada publishes consumer price indexes (CPI) for the provinces, territories and major cities. However, these compare the CPI of each site to its own price level and are not comparative between sites.

Available comparisons indicate that Vancouver is a moderately high cost location for renters and a high cost location for people who are buying a house.<sup>17</sup> In a comparison published in 1999<sup>18</sup> a three-bedroom, 1800 square-foot home in Vancouver was more expensive to buy than in any other major Canadian city, with prices ranging from a low of \$136,600 in Regina to almost \$285,000 in Vancouver. Another review by Runzheimer Canada Inc. in 1998 compared apartment rents in 14 metropolitan areas - Vancouver (at an average of \$683 per month) ranked below Toronto (\$995) but above Edmonton (\$525).

Another comparison, from Statistics Canada based on the 1996 Census, indicated that almost 20% of BC families with mortgages pay over 30% of family income on major shelter-related payments compared with less than 15% in Alberta. Average monthly mortgage payments were \$1300 compared with \$1157 in Alberta.

Anecdotal reports, confirmed by interviews (see Appendix 5), are that some nurses' decisions about working in BC's health care system may be influenced by the cost of housing and other living expenses, particularly in the lower mainland region.

### ***National and International Scope of Issue***

BC is not unique in its experience of a nursing shortage. The issue has drawn attention and provoked action on provincial, federal and international levels.

In 1997, the CNA commissioned a study<sup>19</sup> on the long-term outlook for nursing supply and demand. The resulting report predicted large shortages by the year 2011. In the two and a half years since the report was published, nursing shortages have sparked considerable activity across Canada. Task forces, labour market analyses and recruitment and retention strategies are active in all provinces and territories, as well as on the federal level. British Columbia chairs the Federal/Provincial/Territorial Advisory Committee on Health Human Resources, which reports to the provincial and territorial Deputy Ministers of Health.

A National Nursing Sector study is currently underway with input from a wide variety of stakeholders, including federal and provincial government representatives, nursing unions,

professional associations (RN, RPN, Licensed Practical Nurses (LPN) and physician), student associations, and educators. Phase I, a major literature review,<sup>20</sup> has been completed.

Eight provinces/territories responded to the Committee's request for information regarding nursing shortage plans and strategies. Summaries of the replies are appended to the Interim Report. All submissions point out nursing shortages and difficulties with supply to varying degrees.

Additionally, many countries around the world are experiencing nursing shortages and have established aggressive strategies to retain nurses as well as compete in the global nursing market.

Under the terms of the North American Free Trade Agreement (NAFTA), nurses from Canada are permitted to work in the United States (US) on a temporary basis for a year at a time (with an option to renew for an additional year's permit). The same is true for American nurses who wish to work in Canada. Statistics on this program are only available for 1994 and 1995. They show that Canadian nurses were taking advantage of this NAFTA provision in far greater numbers than their American counterparts. In 1994, 6,821 Canadian nurses went to the US and a further 5,234 obtained temporary permits in 1995. In contrast, 56 US nurses came to Canada in 1994 and 41 in 1995.<sup>21</sup> There is reason to believe that these years may be atypical, given the downsizing of health facilities in Ontario and Alberta at that time.

American hospitals are promoting enticements such as shift arrangements where nurses who work two 12-hour shifts between Friday and Sunday nights are paid full-time wages and benefits. Sign-on bonuses of \$5,000 and \$8,000 for six and twelve month commitments are being offered in specialties such as the Intensive Care Unit (ICU) and in the Operating Room (OR).<sup>22</sup> Evaluation of the effectiveness of such recruitment strategies is not readily available. Additionally, the total compensation provided in such employment contracts varies widely, making comparisons difficult.

In November 1999, the United Kingdom Central Council for Nursing reported a 160% increase in applications from overseas nurses compared with the previous year. Annual figures had been steady at about 4,000 to 5,000 applications but rose to 8,200 when reported in March 1999. The number of applicants continued to rise throughout the year and it was predicted that the annual total would reach 30,000 applications by March 2000.<sup>23</sup> The increase is being attributed to the recruitment activity of National Health Service (NHS) Trusts that were attempting to fill vacancies of approximately 15,000 for England alone.

The British government supports a comprehensive campaign<sup>24</sup> to address the nursing shortage including:

- a marketing campaign to encourage non-practicing nurses to return to the NHS;
- developing "family friendly" policies, including many part-time options;
- revising pay structures to provide both a general increase as well as create career opportunities up to a nurse consultant level;
- providing an extra 6,000 nurse training places over three years;
- funding up to 15,000 more nurses over three years;



- providing a fund (5 million pounds) to hospitals to pay for schemes such as better child care, more flexible shifts and refresher training;
- designing outreach programs to encourage children to consider a career in nursing;
- exploring ways to develop closer links between universities and the health service; and
- developing a more flexible approach to nursing education for both diploma and degree courses, including more part-time student places, options for taking breaks from study, and relaxing entry requirements.

Some countries appear to have nursing surpluses, including Japan, the Philippines, Korea and China. Nurses from these countries must meet the requirements of the appropriate provincial professional nursing association, as well as satisfy immigration requirements.

Concerns over a “robbing Peter to pay Paul” approach to the international shortage led the International Council of Nurses to take part in a survey to determine the migration patterns of health care workers with the end goal of eliminating or reducing the negative impact of migration.<sup>25</sup> There is general recognition that recruiting foreign nurses during times of shortage is not a long-term solution to the problem. However, as a short-term measure, facilitating immigration of skilled nurses would be helpful.

**RECOMMENDATION 1:**

**The Ministry of Health continue its efforts to persuade Human Resources Development Canada (HRDC) and Citizenship and Immigration Canada to place nursing on the General Occupations List.**

**RECOMMENDATION 2:**

**The Ministry of Health request the Health Human Resources Advisory Committee advocate on behalf of BC at the federal level and monitor international and provincial/territorial reports on supply, recruitment and retention of RNs and RPNs.**

### **3. CURRENT SITUATION**

#### ***BCData Sources***

The Committee relied on two major sources of data (ROLLCALL and a survey designed for the Report) to determine the current number of RNs and RPNs, the settings they work in, the composition of the nursing workforce (e.g. employment status, demographics), and the areas of nursing shortage. Additionally, in March, May and June 1999, the Committee invited employers, nurses, educators, professional associations, and provincial ministries of health to provide written information about their experiences with recruitment and retention issues. As well, in late 1999 BCNU conducted a demographic survey of its members (the "BCNU Membership Survey"), along with a small survey of members who had left nursing. Additionally, employers were asked to furnish some further information about 1999 vacancies they had submitted to the HLA.

ROLLCALL is a database compiled by the Health Human Resources Unit (HHRU) at the University of BC (UBC). The primary source of nursing data for ROLLCALL is the registration information provided by nurses to the Registered Nurses' Association of BC (RNABC) and the College of Registered Psychiatric Nurses. The latest year that ROLLCALL published data for is 1998.<sup>26</sup>

To obtain current nursing recruitment and retention data for this report, a survey (the "Survey") was conducted of all health authorities and provincial agencies. Health authorities were asked to examine the period from April 1, 1999 to September 16, 1999 and answer questions pertaining to RN/RPN utilization, demographic descriptors, vacancies, turnover and human resource forecasting. The information, substantively from payroll systems, was intended to regionally and provincially describe the RN/RPN workforce and identify shortages, while maintaining the privacy of individual employers (see Appendix 6).

The following data set was established for the Survey:

- Demographic description by general duty and specified specialty areas;
- Hours worked and hours paid;
- Difficult to fill vacancies as a proxy for shortages;
- Turnover within individual employers;
- Descriptions of staffing difficulties over time; and
- Human resources planning activity.

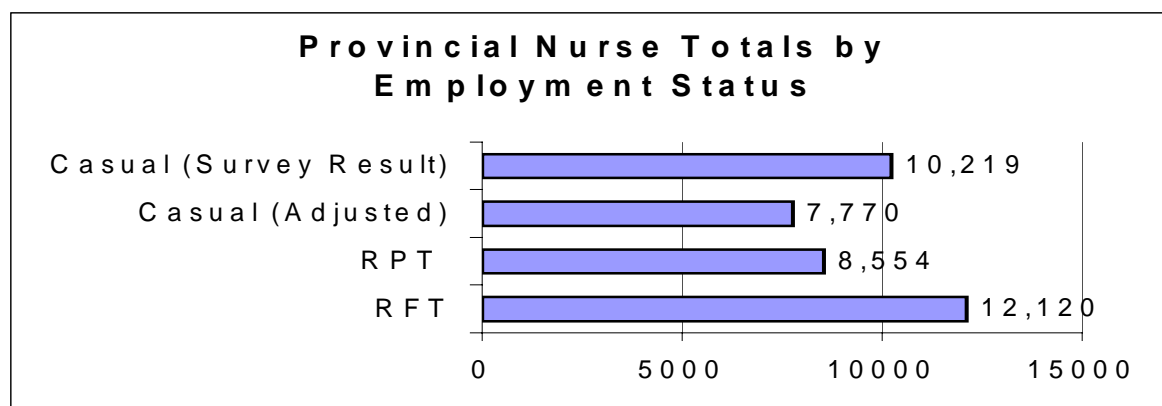
Overall, an 87% response rate was achieved<sup>27</sup> from the Survey, with 48 of the 53 areas surveyed reporting. There was a 100% return rate from regional health boards, an 89% reply from community health councils, and an 86% reply from community health service societies. As well, the other two entities surveyed (Riverview and Provincial Forensic Services) both responded. The process of obtaining the information was very time consuming for many of the health authorities. Many do not have centralized payroll systems and, while some of the information was available through special queries of existing databases, much of the information had to be obtained through individual perseverance on the part of the health authority and by

manual computations. Due to the contractual nature of the community residential sector little data could be obtained for the purposes of the Survey from that sector.

### ***Utilization of Registered Nurses and Registered Psychiatric Nurses***

The Survey accounted for 30,893 RNs and RPNs throughout BC. This number is marginally greater than the 1998 ROLLCALL number of practicing RNs added to the 1998 RPN figures which total 30,381, a difference of 512. This indicates a significant over-counting in the Survey. ROLLCALL numbers should be substantially higher than the Survey numbers, because the Survey did not cover workplaces (such as physicians' offices, educational institutions and private nursing agencies) employing some 2400 nurses. In addition, the long-term care subsector is under-represented in the Survey data. Moreover, there is some over-reporting in the ROLLCALL data, due to double reporting of dual qualified RN/RPNs.

The higher Survey number may be explained to a small extent by increases in the nursing workforce during the period between the data collection for ROLLCALL and the data collection for the Survey. The major factor, however, is undoubtedly over-reporting of casual employees in the Survey data. Employers reported every casual as one employee and, in many cases, casual employees work for more than one employer. The Survey number of RN/RPNs includes 10,219 casual employees. This number is far greater than the ROLLCALL number of 7,660 casual RNs. Given that ROLLCALL does not report data for casual RPNs, an estimated 600 casual employees can be added to the casual nurse total. Other data from the Survey confirms that the appropriate estimated number of casual RN/RPNs is slightly under 7,800.



**Source:** Recruitment and Retention Survey, April 1 - September 16, 1999

On an adjusted basis (discounting the reported number of casual employees in the Survey), there are 12,120 regular full-time nurses (43%); 8,554 regular part time nurses (30%) and 7,770 casual employees (27%). This is roughly consistent with ROLLCALL proportions (for RNs only), although ROLLCALL has a higher percentage of full-time (47%) and a correspondingly lower percent of part-time (25%). This difference may reflect a greater prevalence of full-time work in doctor's offices, educational institutes and other workplaces not covered by the Survey.

**Table 8: Practising RNs employed in nursing by employment status 1992-1998**

	1992	1993	1994	1995	1996	1997	1998
Full-Time	14,562	14,411	14,177	13,858	13,644	13,450	13,322
Part-Time	5,085	5,899	5,849	5,957	7,089	7,238	7,150
Casual	6,601	6,683	7,171	7,603	7,047	6,954	7,709
Total	26,248	26,993	27,197	27,418	27,780	27,642	28,181
Full-Time	55.4%	53.4%	52.1%	50.6%	49.1%	48.7%	47.3%
Part-Time	19.4%	21.8%	21.5%	21.7%	25.5%	26.2%	25.4%
Casual	25.2%	24.8%	26.4%	27.7%	25.4%	25.1%	27.3%
Total	100%	100%	100%	100%	100%	100%	100%

Source: ROLLCALL<sup>28</sup> 1992 -1998

ROLLCALL '98 shows that most nurses working in BC are employed in the hospital setting. However, the percentage of RNs working in this setting declined from 75% in 1990 to 68% in 1998. The distribution of RNs across employment sites in BC was similar to the Canadian distribution<sup>29</sup> in 1998. Nationally, 62% of nurses worked in hospitals (63% in BC), 12% worked in extended care or long-term care (13% in BC), and 12% worked in home care or community health (11% in BC).

**Table 9: Practicing RNs Employed in Nursing in BC by Type of Employer**

	1990	1990	1992	1993	1994	1995	1996	1997	1998
Acute/Extended care <sup>30</sup>	18,541	19,249	17,656	18,597	18,881	18,942	19,607	19,350	19,275
Long-term Care (LTC) facility	1,586	1,690	1,752	1,890	1,872	2,064	2,304	2,321	2,350
Community Health <sup>31</sup>	2,215	2,349	2,297	2,411	2,494	2,525	2,842	2,892	3,348
Outpost/Nurse Clinics	N/A	N/A	39	52	64	75	114	80	85
Other <sup>32</sup>	2,364	2,476	4,504	4,043	3,856	3,812	2,913	2,999	3,123

Source: ROLLCALL 1990 - 1998

ROLLCALL data provides information on employment by primary area of responsibility. In 1998, the primary area of responsibility for most RNs was within medical surgical units. Between 1990 and 1998 there were marginal percentage increases within OR, PAR, Emergency, Geriatrics, and Other Patient Care; while there were marginal percentage decreases within Critical Care, Maternal Newborn, and Several Clinical Areas. Community Care increased substantially.

**Table 10: Practicing RNs Employed in Nursing In BC by Primary Area of Responsibility**

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Medical Surgical <sup>33</sup>	8,373	8,812	8,871	9,068	9,072	8,941	8,990	9,207	9,562
Critical Care	2,802	3,270	2,877	2,820	2,759	2,706	2,018	2,029	2,031
OR	833	1,076	1,175	1,209	1,218	1,246	1,242	1,221	1,221
Post Anaesthetic Recovery (PAR)	315	414	N/A	N/A	N/A	N/A	458	475	474
Emergency	669	N/A	946	1,023	1,070	1,111	1,192	1,207	1,224
Maternal / Newborn	1,839	1,932	1,897	1,907	1,881	1,930	1,855	1,818	1,781
Geriatrics	3,118	3,309	3,402	3,579	3,660	3,746	4,075	4,115	4,134
Community Health <sup>34</sup>	N/A	N/A	1,333	1,806	2,029	2,244	2,675	2,637	2,740
Several Clinical Areas	2,519	2,431	1,538	1,348	1,261	1,180	1,085	1,105	1,068
Other Patient Care	1,095	1,269	1,144	1,151	1,220	1,263	1,627	1,443	1,456
Other <sup>35</sup>	3,143	3,251	3,066	3,082	3,027	3,051	2,563	2,385	2,490
<b>Total</b>	<b>24,706</b>	<b>25,764</b>	<b>26,248</b>	<b>26,993</b>	<b>27,197</b>	<b>27,418</b>	<b>27,780</b>	<b>27,642</b>	<b>28,181</b>

Source: ROLLCALL 1990 - 1998

The categories in ROLLCALL are different than those used in the Survey. The Survey showed the provincial distribution of RNs and RPNs in acute care/extended care and specialty areas to be as follows:

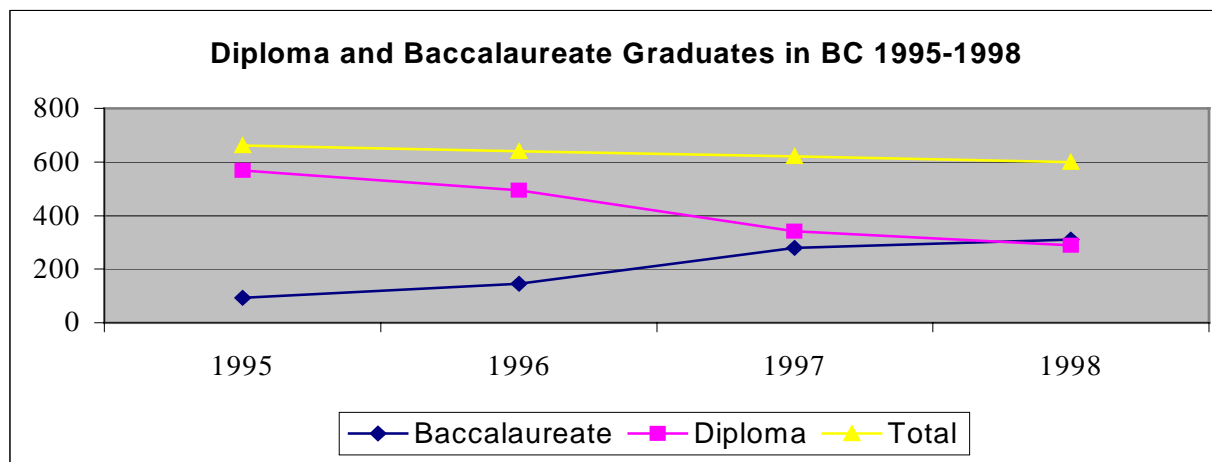
**Table 11: Provincial Distribution of RNs and RPNs**

Area of Work	Number of Nurses In Area	% of Total Provincial Nurse Workforce
Acute/extended care (AC/EC)	19,050	61.7
ICU	1,490	4.8
Cardiac Care Unit (CCU)	537	1.7
OR	1,288	4.2
PAR	516	1.7
Emergency (ER)	1,544	5.0
Labour Delivery Recovery (LDR)	1,537	5.0
Special Care Nursery (SCN)	509	1.6
Renal Services	410	1.3
Specialty areas combined	7,831	25.3

Source: Recruitment and Retention Survey, April 1 – September 16, 1999

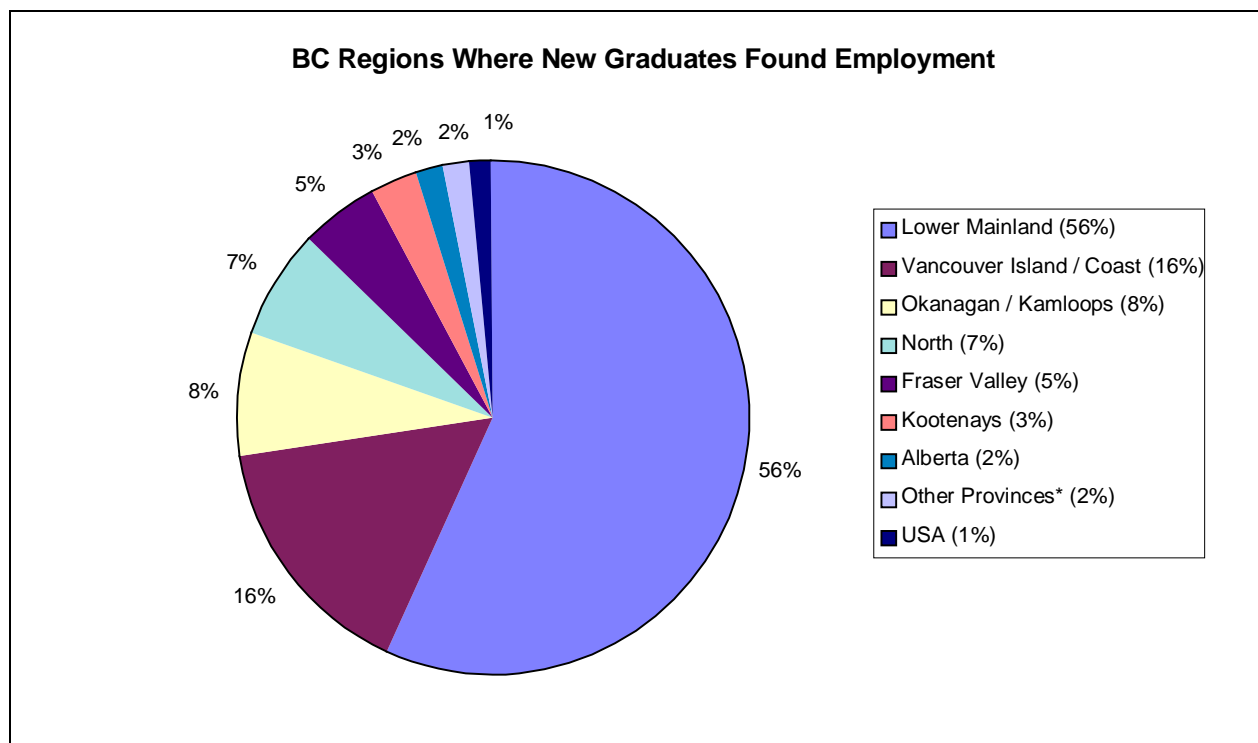
**Deployment of New Graduates**

New nursing graduates are a major source of supply for nursing positions throughout BC. Graduates from BC nursing programs contribute to 55% of the province’s annual supply, whereas 45% come from other provinces or countries. Since 1995, there has been an overall decline in the number of students graduating from nursing programs.<sup>36</sup>



Source: Data Collected in HHRU surveys. Numbers for 1995 and 1996 were drawn from PRODUCTION 95; numbers for 1997 and 1998 were obtained in a cross-Canada survey.

The RNABC New Graduate Nurse Survey<sup>37</sup> reports that 670 students graduated from nursing programs in 1997. Of those, 45% obtained a BSN, while 55% were diploma graduates. Ninety-two percent of nursing graduates were female. Ninety-eight percent of new graduates found employment; 24% were employed in regular positions (16% regular full-time and 8% regular part-time) with the remainder hired into casual positions. The following chart depicts the regions where BC nursing graduates found employment.<sup>38</sup>



Source: RNABC. (1998). *New Graduate Survey 1998: A Report*. \*Refers to other provinces besides BC and Alberta.

Almost half (49%) of the 324 new graduates who responded to the RNABC New Graduate Nurse Survey reported dissatisfaction with their employment status. Of that group, 78% stated a preference for full-time employment and 17% wanted part-time positions.

Of the new graduates working in casual positions, 56% reported working from 73 to 144 hours per month. An additional 18% reported working more than full-time hours, 19% reported working from 37 to 72 hours per month and 7% reported working less than 36 hours per month. Sixty-nine percent of the casual status new graduates said they worked as many hours as they requested.

The majority (90%) of new graduates felt their nursing education prepared them to meet job expectations, with 45% reporting “satisfactory”, 35% “quite well” and 11% “very well”. Almost three-quarters (72%) of the new graduates were reasonably satisfied with the orientation they received. The most frequent response of those who were not satisfied with their orientation was that it was too short. Fifty-four of the three hundred and twenty-four new graduates responding reported orientations of two days or less.

The new graduates spoke about their need to be supported in their beginning practice and proposed mentoring, appropriate workloads and the opportunity to access regular jobs as solutions to their concerns about entering practice.

### ***Casual Employment of Nurses***

Over the past eight years, there has been a change in the percentage of nurses working in regular full-time jobs. In 1992, 56% of nurses were full-time employees, 19% worked part-time and 25% were employed as casuals. By 1998, 47% were working full-time, 26% part-time and 27% casual.<sup>39</sup> RNABC<sup>40</sup> notes that the number of casual hours have risen by 5% since 1993.

Casual employees are a necessary part of the nursing workforce. They provide staffing when regular employees are absent for illness, vacation, leave of absences, paid holidays, overtime owing, and maternity leave. Additionally, casual employees provide temporary workload assistance, client specific assignments and provide relief pending a regular employee appointment. Many employers report that they do not have enough casual nurse employees available to fill all of their relief needs. When that occurs, employers must utilize other strategies to deal with the situation including relying on regular staff at overtime rates; creating float pools or temporary positions where appropriate, adjusting patient/resident/client assignments and staff configurations, or curtailing services, programs or procedures.

Casualization of the nursing work force can create unstable staffing, frequent understaffing and inconsistent staffing. It can also be detrimental to nursing staff development and morale.<sup>41</sup> New graduates who are employed on an infrequent basis may be unable to adequately develop their emerging skills and knowledge base. Additionally, it can make nursing less attractive to those seeking secure employment.<sup>42</sup>

On the other hand, collective agreement provision have made casual positions a more attractive option for some nurses. Call-in by seniority provides senior casual nurses greater ability to select the number and type of shifts and assignments they prefer. Entitlement to benefits and access to temporary regular positions have also increased the attractiveness of casual employment. Some employers have reported difficulties attracting nurses to regular full-time and part-time positions.

Anecdotally, some nurses are expressing an interest in leaving regular full-time positions to take up part-time positions or casual positions in order to regain some control over their working hours. The BCNU Membership Survey found that 36% of respondents working full-time said they would like to work part-time. About 40% of casual employees responding said they wanted to remain working in a casual position. Of the casual employees wanting regular positions, 58% preferred part-time work, 40% preferred full-time work and 2% had no preference.

#### **RECOMMENDATION 3:**

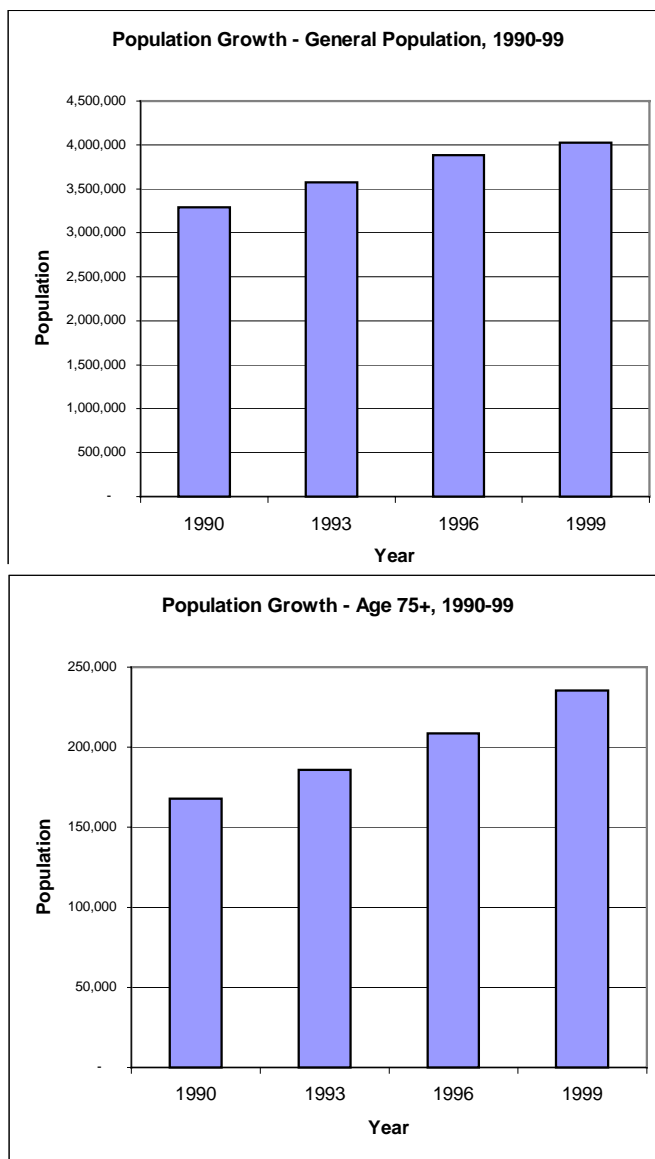
**HEABC continue to assist employers with utilization of Article 17 of the NBA Provincial Collective Agreement to create regular temporary positions where it is operationally appropriate to do so. The NBA request its members to assist with those efforts.**



#### 4. SUPPLY OF RNs AND RPNs

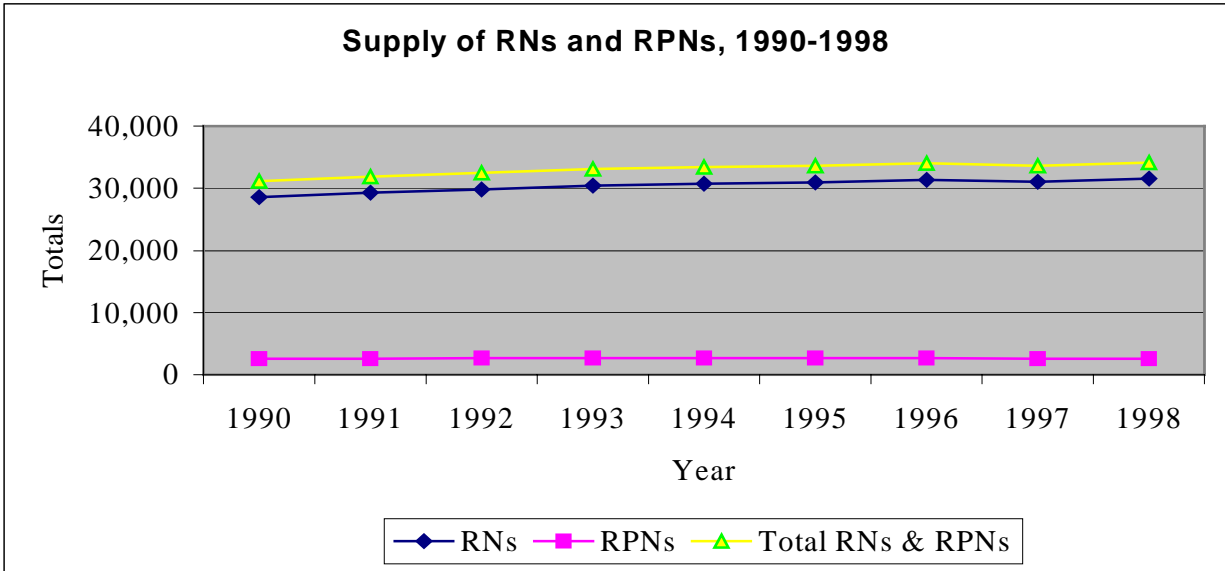
##### *Population: General and Nursing*

Over the last 10 years the population of BC<sup>43</sup> has expanded from 3,291,379 to 4,023,100, a total population increase of 731,721 (22.2%) between 1990 and 1999. During the same time period, the total increase in population for those greater than 75 years of age was 66,996 (39.9%).



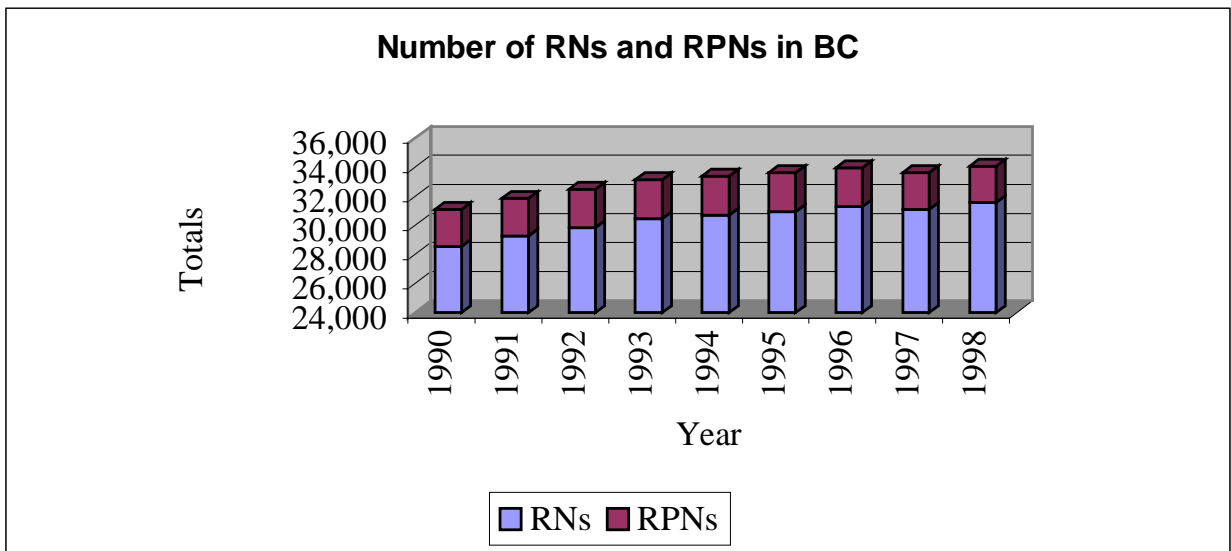
Source: Statistics Canada

Although the supply of RNs, in absolute terms, increased during 1990 to 1998, it did not keep pace with the population growth of BC. According to ROLLCALL data, the total RN population grew from 28,553 in 1990 to 31,575 in 1998. In 1990 the supply of RPNs totaled 2,556 and decreased to 2,511 in 1998, while peaking in 1995 and 1996 at 2,681.



Source: ROLLCALL 1990 - 1998

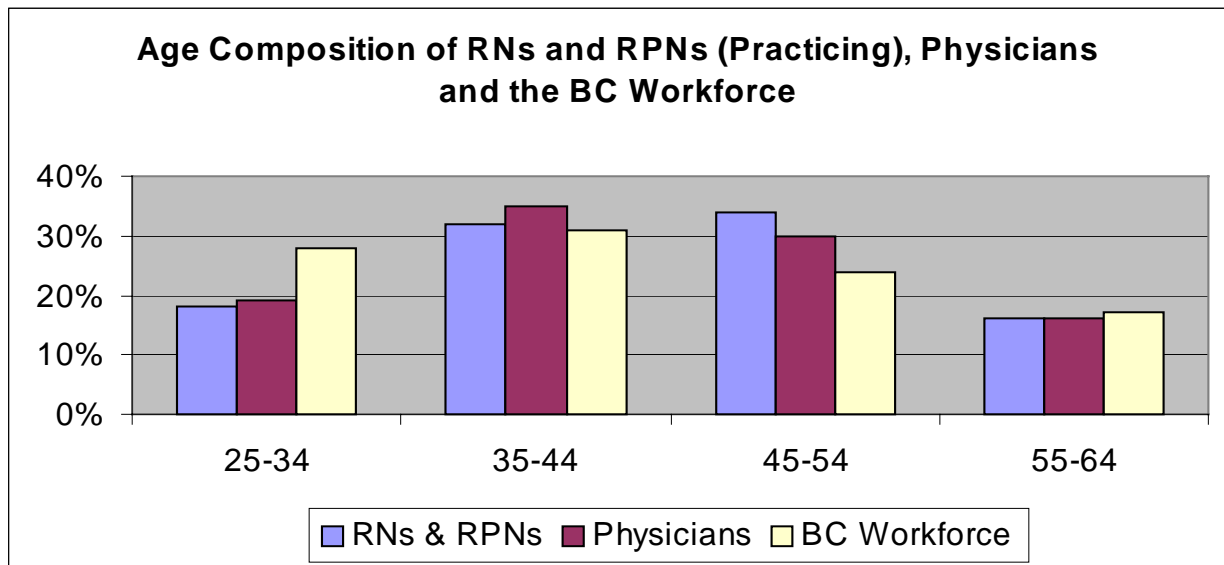
ROLLCALL data shows that the practicing RN per 10,000 population ratio decreased from 78.3 to 72.8 and the RPN per 10,000 population ratio also decreased from 7.7 in 1990 to 6.3 in 1998.



Source: ROLLCALL 1990 - 1998

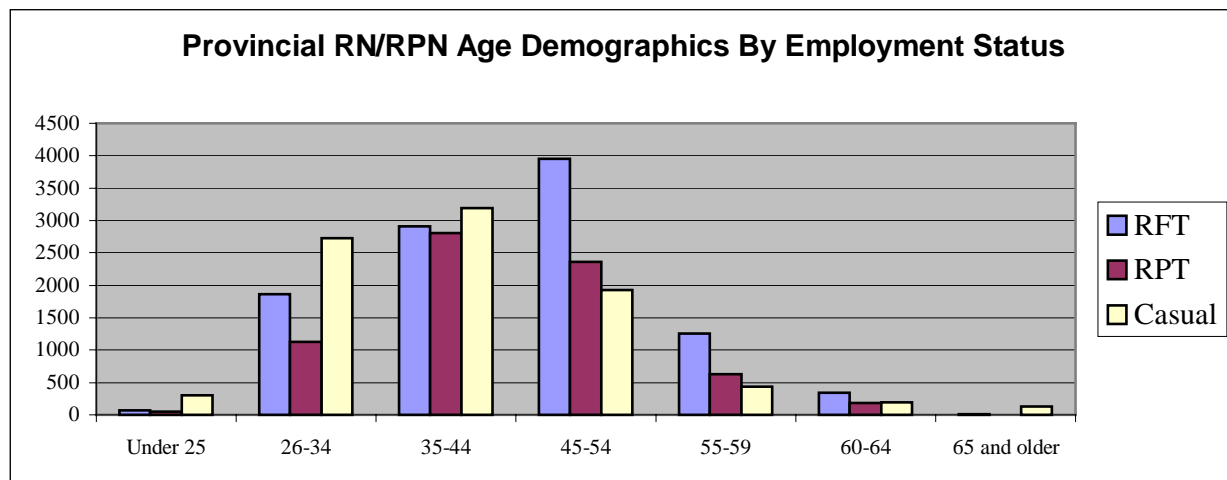
**Labour Market Trends and Demographics of the Workforce**

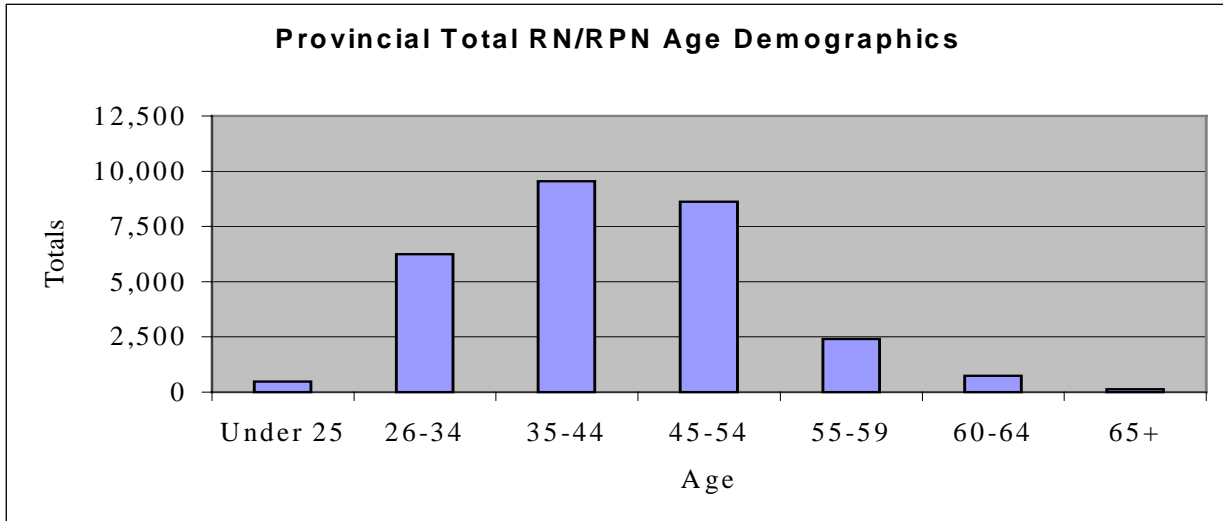
The leading edge of baby boomers (born in 1946) will be turning 55 in 2001. They will be candidates for retirement, particularly if their time in the workforce has been sufficient to enable them to access a vested pension. In any event, over the next twenty years, the majority of individuals in this age group will move out of the workforce and into retirement. The health services sector stands out as being one of the “oldest” sectors in the BC workforce and thus will be particularly impacted by retirement of baby boomers. The following chart compares the age composition of registered nurses and registered psychiatric nurses to physicians as well as to the general BC workforce population.



Source: ROLLCALL 98

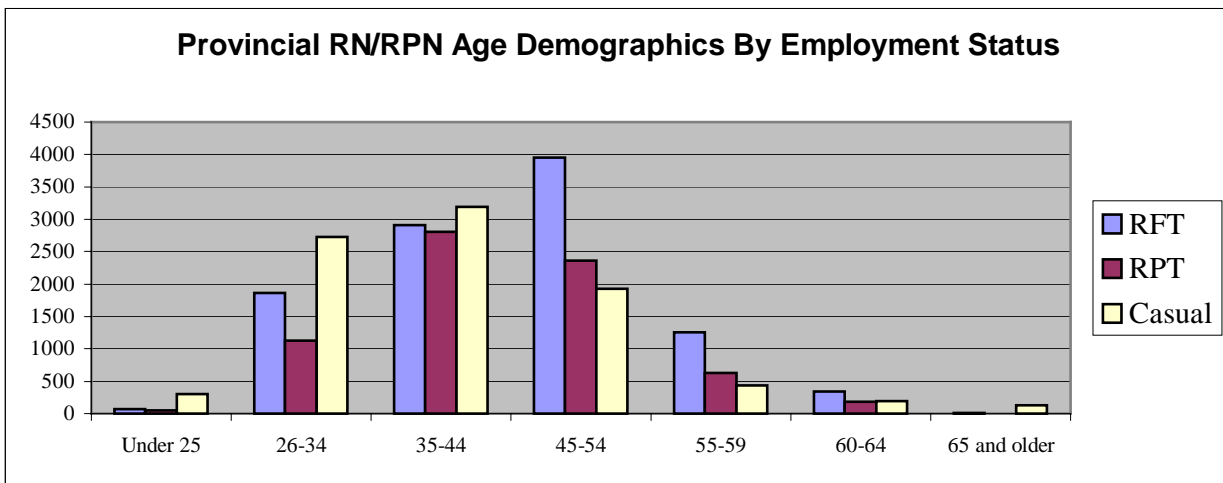
According to the Survey, the greatest number of nurses occupy the 35 to 44 age category, followed closely by the 45 to 54 age category. The third largest age group is the 25 to 34 year old category.





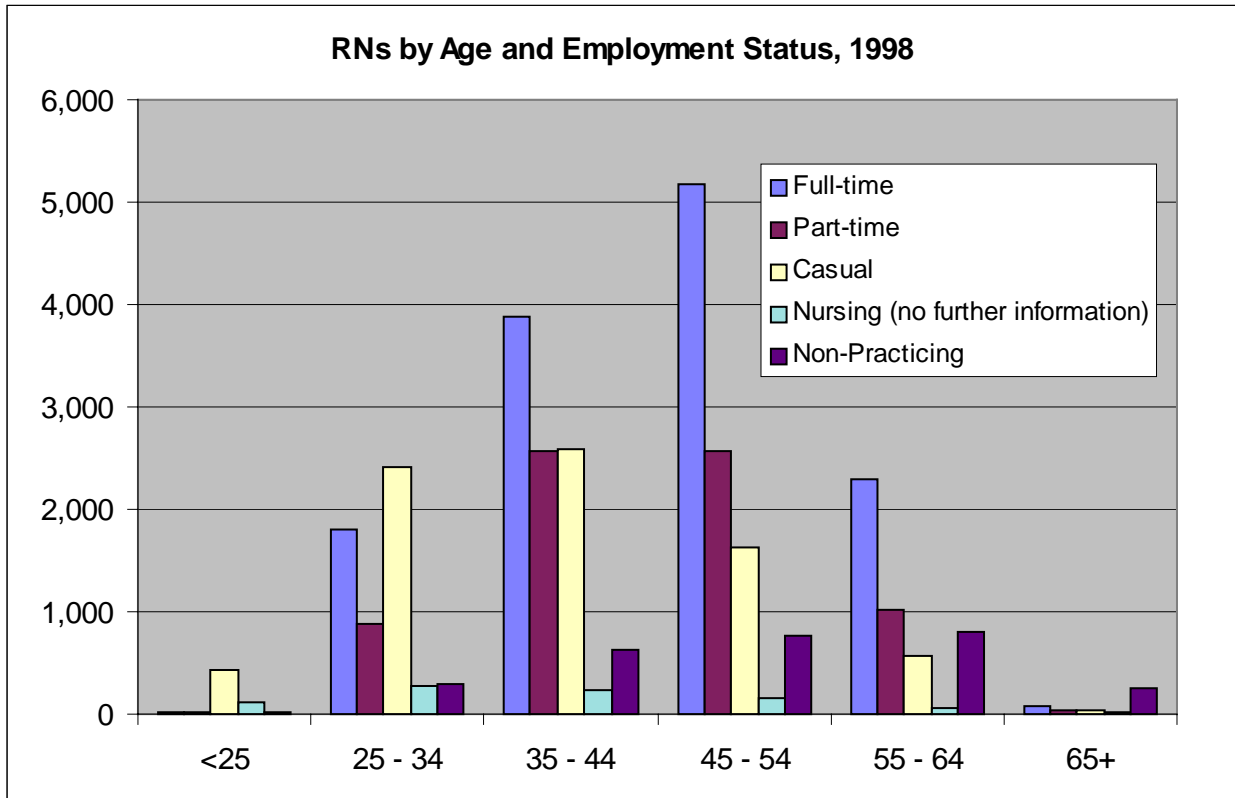
**Source:** Recruitment and Retention Survey, April 1 – September 16, 1999

Although the 35 to 44 age category contains the greatest number of nurses, the 45 to 54 age category contains the most regular full-time nurses. This may indicate a future increase in full-time workforce participation as those nurses who are currently 35 to 44 years of age enter the next age bracket.



**Source:** Recruitment and Retention Survey, April 1 – September 16, 1999

ROLLCALL data shows similar employment status trends.



Source: ROLLCALL 1998

◆ *Multiple Employment*

Many nurses, particularly those employed in regular part-time and casual positions, work for more than one health employer. This situation is thought to be more prevalent where employers are in close geographic proximity to one another. Statistics Canada information shows multiple employment occurs even with nurses who are employed full-time. This was reflected in the BCNU Membership Survey, where 5% of full-time respondents reported working for more than one employer.

**Table 12: RNs Employed in Nursing in British Columbia by Full-time or Part-time (including Casual) Status and Multiple Employment**

	BC
<b>Total</b>	
Total	28,004
Single Employment	22,787
Multiple Employment	5,217
<b>Full-time</b>	
Total	13,494
Single Employment	12,121
Multiple Employment	1,373
<b>Part-time (inc. Casual)</b>	
Total	14,042
Single Employment	10,299
Multiple Employment	3,743
<b>Not stated</b>	
Total	468
Single Employment	367
Multiple Employment	101

Source: Statistics Canada 1999

***Migration, Immigration and Emigration of Nurses***

Historically, BC has not educated nurses in sufficient numbers to meet the province’s need. In 1998, graduates from BC colleges and universities made up approximately 58% (659 individuals) of the year’s supply of new registrants. Of the remaining new registrants, 315 were graduates from other provinces and 161 were graduates from other countries. These numbers fluctuate and have been steadily decreasing since 1991. In 1993, new registrants consisted of 839 BC graduates, 577 from other provinces and 316 from other countries.<sup>44</sup>

**Table 13: New RN Registrants from BC, Canada and Other Countries**

	1993	1998	% change
BC	839	659	- 21.5
Other provinces	577	315	- 45.5
Foreign	316	161	- 49.1
Total	1732	1135	- 34.5

Source: RNABC Membership Statistics

◆ *RNABC Reciprocity Agreement*

In order to practice as an RN or an RPN in BC an individual must be registered by the appropriate provincial body, either the RNABC or the College of Registered Psychiatric Nurses. Nurses who have never previously been registered in BC must have their eligibility for registration assessed.

For RNs, registration requirements between provinces are evolving to meet the federal Internal Trade Labour Mobility requirements.<sup>45</sup> In December 1998, ten provincial/territorial RN regulatory bodies signed a Mutual Recognition Agreement (MRA). Ontario and Quebec are not signatories to this agreement. The purpose of the MRA is to set out commonly held national registration standards throughout Canada and to facilitate mobility of RNs through registration endorsement. The MRA provides that once registered in a Canadian jurisdiction, registration in another province or territory will be granted based on the existing registration being in good standing and meeting continuing competencies as outlined in an Endorsement Document to the MRA. There have been on-going discussions between the jurisdictions to address issues related to standards for registration. The registrars of RN professional associations from all jurisdictions will be meeting in the Spring 2000 to attempt to reach agreement among all jurisdictions. A determination will then need to be made by the federal Labour Mobility Coordinating Group as to whether the requirements under the federal Internal Trade Agreement have been met.

◆ *Number of nurses leaving BC and Canada*

Although it is difficult to get exact figures on nurses who actually leave the province, information from professional nursing associations indicate that in 1988, 1000 RNs asked to have their credentials verified in order to be licensed to work in another country. In 1996, 5,433 requested verification.<sup>46</sup> Provincially, the RNABC reports an increase in requests for verification. In 1998 there were 862 requests for verification compared to 671 in 1997. Of the 862 requests, 59% were for other provinces, while 41% were for other countries.<sup>47</sup>

### ***Employee Wellness and the Supply of Nurses***

Hospitals and other health care settings have relatively high rates of employee injury and illness.<sup>48</sup> Many people outside the health system might assume that this is because health care employees are in continual contact with sick people and are therefore more likely to contract disease. However, for health care employees who are in direct contact with patients, by far the largest cause of long-term absences (both Workers' Compensation Board (WCB) and Long-term Disability (LTD)) is musculo-skeletal and connective tissue problems – what the WCB calls “over-exertion, patient handling”.

Injuries or trauma from workplace violence are also a significant factor in lost time. In the most recent five year period for which data are available, there were 5,895 WCB claims from nurses in the “violence, force” category. The incidence of violence varies dramatically with the health care setting. A survey of all employees at one large urban emergency department found that 55% of respondents had been assaulted physically in the single year covered by the survey. Although “violence/force” is far less significant than “over-exertion, patient handling” in terms of



lost time, it is an important working condition factor and a retention issue because of its psychosocial significance.

The financial implications of employee injury and illness rates for employers are significant. In the context of the present report, improvements in employee wellness can also be looked at as enhancing the supply of available nurses.

### ◆ *Workers' Compensation Injury and Illness*

From 1994 to 1998, the average number of workers' compensation disability claims per 100 healthcare workers employed for a year was 7.4 - a much higher rate than the provincial average for all industries of 4.8. In that same period, nurses (RNs and RPNs) accounted for 25% of accepted claims.

In 1998 (the most recent year for available data), the "hospitals and related" WCB subclass recorded over 8% of all claims – one of the highest claims experience of all the subclasses. In that year, 73,445 RN/RPN working days were lost due to compensable injury and illness.

Unlike LTD and short-term paid sick leave (and Short-term Illness and Injury Plan (STIIP) in the public service), all employees are eligible for WCB, including casual employees. Assuming WCB claims occur in a constant relation to hours worked, about 80% of the lost working days can be attributed to regular status employees. In that case, the annual working days lost by regular status nurses (about 59,000) would equal the working days of approximately 250 full-time nurses.

### ◆ *Long-term Disability*

In 1998, 6.7% of all nurses covered by the Healthcare Benefit Trust were LTD claimants.<sup>49</sup> It is estimated that absences by RNs and RPNs on LTD account for the equivalent of over 1,100 full-time nurses a year.

In addition, an estimated 12% of "short-term" disability absences are future LTD claimants and are using sick leave credits (or, in the public service, STIIP benefits) before commencement of LTD benefits. This is the equivalent of approximately another 140 full-time nurses.

◆ *Total Long-term Injury and Illness*

The total full-time nurse equivalency of the above WCB and long-term absences is 1,490 (equal to about 7.5% of the total regular nurse workforce).

A reduction of 10% in the number of long-term absences would be the equivalent of hiring 149 full-time nurses. This figure is theoretical, and does not translate neatly and consistently into the right people in the right places for the same number of “difficult to fill” (DTF) vacancies.<sup>50</sup> However, it is worth noting for a sense of scale and significance, that 149 is over one third of the current number of DTF vacancies identified in the Survey and discussed in Section 5 of the Report. Moreover, while the 149 are notional full-time employees, about 40% of the DTF vacancies are part-time.

◆ *Short-term Disability*

Regular status nurses are absent on a short-term basis for an average of 13.6 working days per year. Subtracting the estimated 12% of those who go on to collect LTD benefits (already counted above) leaves 12.0 days. Because short-term absences are episodic and unpredictable in nature, aggregating them into equivalent of full-time nurses would be even more theoretical than the same exercise for long-term absences. It is sufficient to point out that the average employee is absent under this category for over 5% of her/his total working days. A reduction in this number would reduce the demand for casuals and result in considerably less pressure on the system (less rescheduling, more continuity, reduced cost etc.).

◆ *Conclusion regarding employee wellness*

In the context of the current and future nurse shortage, improved wellness would result in an increased supply of RNs and RPNs.

Moreover, unless there is significant improvement in age-specific and overall rates of injury and illness, the demographics of the existing workforce mean that in the future there will be less wellness, more absences, and a reduction in the effective supply of nurses.

This area should be the focus of attention by employers and unions. Memorandum of Understanding appended to the Provincial Collective Agreement articulate HEABC and the NBA’s recognition and commitment to joint identification and implementation of strategies for a safe work environment. The healthcare unions and HEABC recently agreed to participate together in a new organization, *the Health Care Occupational Health and Safety Agency*. The general purpose of the Agency is to promote adoption of “practices, programs or models which have the potential to improve occupational health and safety” (see Appendix 7).

**RECOMMENDATION 4:**

**The Ministry of Health continue to support government initiatives to identify and mitigate work-related causes of injury and illness.**

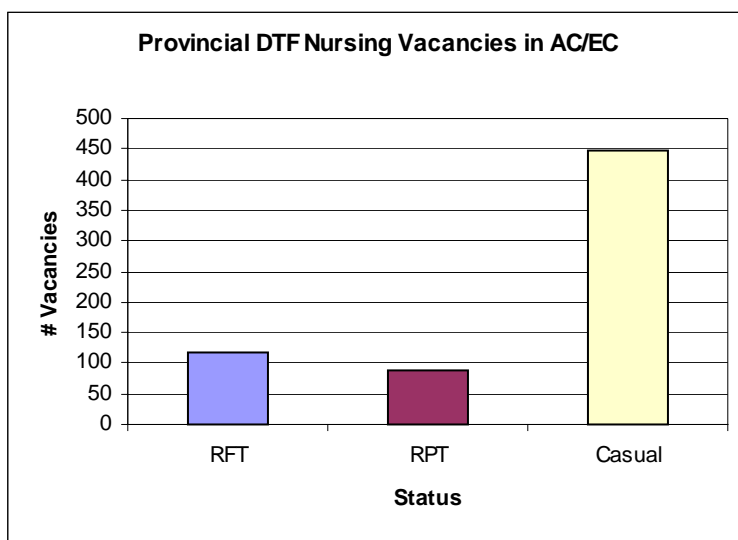
## 5. DEMAND FOR RNs AND RPNs

### *Difficult to Fill Nursing Vacancies*

To define the type and location of shortages, only “difficult to fill” (DTF) vacant positions were reviewed in the Survey. These DTF vacancies were defined as vacancies existing in April 1, 1999 to September 16, 1999 and vacant three months after posting. As expected, quantitatively the regional health boards had the most DTF vacancies of all employers and the DTF vacancies were greatest in general duty.

Provincially, 434 of the 20,674 (2%) of reported regular positions were reported as DTF vacancies. These DTF vacancies were disproportionately concentrated in three lower mainland regions. The three regions, employing 45% of the regular RN/RPNs in BC had 78% of the DTF vacancies. In one situation, the regular DTF vacancies equaled 12% of the region’s regular positions.

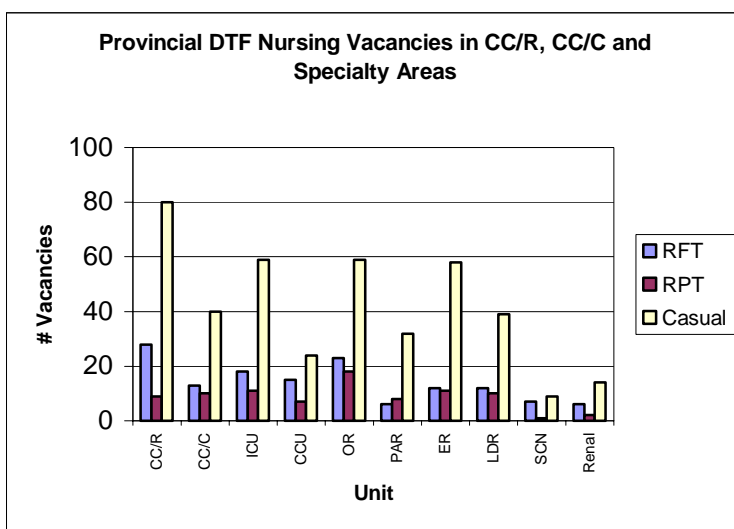
Casual DTF vacancies outnumbered regular DTF vacancies by nearly two to one (861 to 434). The regions with the largest number of regular DTF vacancies also had significant casual DTF vacancies. However, casual DTF vacancies were more evenly spread throughout the province. This may indicate a major problem for employers in providing relief for regular employees for holiday and sick time in rural and remote areas.



Source: Nursing Recruitment and Retention Survey, April 1 - September 16, 1999

◆ *Regular General Duty Positions*

Almost half (207 of 434) of the regular DTF vacancies were reported to be in acute care general duty nursing positions. Again, 88% of these DTF vacancies were concentrated in three lower mainland regions, accounting for half to two-thirds of their regular DTF vacancies. This lower mainland and service sector consolidation is significant, due to the tertiary nature of many of these facilities and the substantive population base, both regional and provincial, served by these centres.



**Source:** Recruitment and Retention Survey, April 1 – September 16, 1999

◆ *Regular Specialty Positions*

DTF vacancies in regular positions, particularly in any one specialty area, can substantively impact on that employer’s ability to provide service. Provincially, the greatest numbers of regular DTF vacancies in specialty areas were reported in Operating Room (41), Intensive Care (29), Emergency (23) and Labour/Delivery/Recovery (22). Proportionally, these are not large numbers. However these DTF vacancies are again concentrated in the major tertiary employers

While the data on regular specialty position DTF vacancies from some regions show the situation is very problematic; other regions appear to have no issue with this type of shortage.

A geographical and sector focus will assist to consolidate and specify both educational and recruiting initiatives.

◆ *Casual General Duty Positions*

Provincially, there are 861 (11%) DTF casual vacancies of 7,770 casual positions (i.e. after adjustment). Again, more than half (447) of these DTF vacancies were in acute general duty. Just over 50% of these DTF vacancies were reported by three lower mainland regions.

◆ *Casual Specialty Positions*

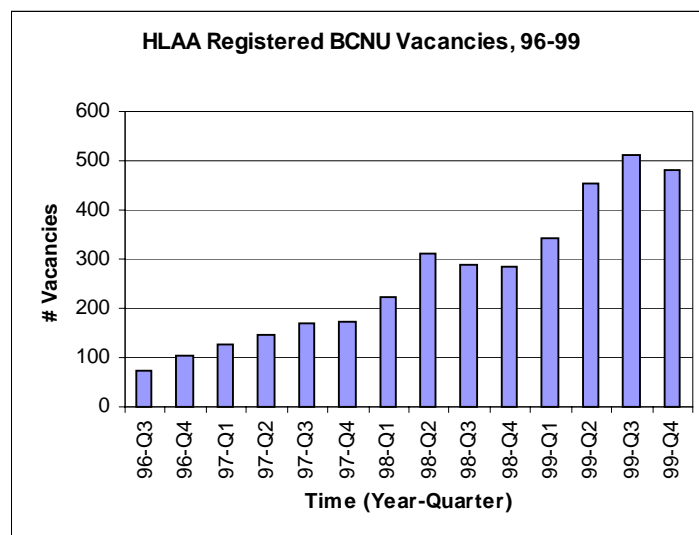
Provincially, the greatest numbers of casual DTF vacancies were reported in Intensive Care Units (59), Operating Room (59), Emergency (58), LDR (39) and PAR (32). Again, the majority of these casual specialty DTF vacancies were reported by the major tertiary employers.

Inadequately staffed casual positions limit an employer's ability to staff for relief purposes (e.g. sick time and vacation periods) and to respond quickly to volume and acuity changes. This may be more so where there is an inadequate or non-existent regular float pool.

◆ *HCAA Vacancies*

Vacancies are sent to HCAA after an employer has been unsuccessful in filling the positions with an internal regular status employee or a casual employee with more than 2,400 hours seniority. HCAA attempts to match qualified displaced employees with the vacancy. If this is not accomplished within two weeks, the employer can consider casual employees with less than 2,400 hours seniority or conduct an external job search.

The number of nursing vacancies submitted to HCAA has been increasing since 1996, with a decreasing number of qualified displaced employees being available to fill those vacancies.



Source: HLAA Archived Information

Of the 617 nursing vacancies registered with HLAA in 1997, 21 were filled by qualified displaced nurses. In 1998, there were 1106 nursing vacancies registered with 21 filled by qualified displaced nurses. In 1999, there were 1785 nursing vacancies registered and 9 were filled by qualified displaced nurses.

As part of the research for the Report, a list of 1999 nursing vacancies that had been submitted to HLAA (and were not filled by HLAA with a qualified displaced nurse) was distributed to employers. Each employer was asked to provide information on whether the vacancies at their work-site had been filled and the status of the successful applicant.

Responses were received for 485 vacancies. The results were as follows:

- 301 positions (62%) were filled internally (173 by casual status employees, 35 by regular status employees and 93 whose status was not identified)
- 92 positions (19%) were filled by external candidates
- 57 positions remain vacant (12%)
- 27 positions were cancelled (5%)
- 8 positions were filled but no further information was given (2%).

◆ *DTF vacancies*

In summary, regular and casual nursing positions in general duty and specialty areas are available throughout the Province. In some specific circumstances nurses are not qualified or are unwilling to accept the available positions. However, the extent of the DTF vacancies leads the Committee to conclude that there insufficient numbers of nurses available to fill the current vacancies. Additionally, even if the available nurses were able or willing to accept the existing vacant positions, the positions they leave would still require filling.

## 6. NURSING EDUCATION

Education is needed to supply new nurses to the health care system, to provide nurses with the knowledge and skills needed to work in specialty areas and to enhance nurses' basic education. It is a key element in recruitment and retention strategies. Education programs to meet these needs have been the subject of much discussion and activity by government, educators, nurses and employers.

A comparison of admissions and graduations from Canadian nursing programs show that admissions and graduations decreased substantially in both colleges and universities between 1991 and 1997.<sup>51</sup> Admissions to college nursing programs decreased from 23,937 to 11,354 (53% decrease), with admissions to university nursing programs falling from 25,602 to 14,378 (44% decrease) in the same period. Nursing graduates from college programs went from 7,438 in 1991 to 4,652 in 1997 (38% decrease), while university nursing program graduates were 8,597 in 1991 and 6,159 in 1997 (28% decrease).

### ***Basic Nursing Education Programs***

#### ◆ *Educational programs leading to an RN*

Presently, there are a number of options open to students interested in general nursing education in BC. There are three generic university programs (University of British Columbia, College of New Caledonia/University of Northern BC (UNBC) and Trinity Western University). UBC is unique in that it provides an option for students with another degree to enter the nursing program in the third year, thereby providing the ability to educate a nurse to the degree level in two years. UNBC has a partnership with College of New Caledonia where students can complete two years in the College and then move into UNBC for the final two years. Diploma exit is not an option.

There are also two collaborative diploma-baccalaureate programs: The Collaborative Nursing Program in BC (Camosun College, Cariboo College, Douglas College, Kwantlen University College, Langara College, Malaspina University College, North Island College, Okanagan University College, Selkirk College, University of Victoria) and the University of Central Fraser Valley/Open University collaboration. These nursing programs have common curriculum which facilitates movement between institutes. All of the collaborative programs at the college level offer the option of exiting with a diploma or progressing to degree completion. The College of the Rockies in Cranbrook has an arrangement with British Columbia Institute of Technology (BCIT) where students can complete the first two levels of the nursing program in Cranbrook and then transfer to BCIT (a diploma only nursing program). BCIT also offers a Bachelor of Technology degree in nursing, which incorporates specialty education. Program lengths range from 2.3 to 3 years (diploma) to 4 years (degree).

Five institutions provide access to RN programs for Licensed Practical Nurses (LPNs) wanting to upgrade their skills (Okanagan University College, Langara College, BCIT, Douglas College and Malaspina University College). Selkirk College is currently developing an LPN upgrade

program. Three institutions provide access to RN programs for RPNs (Okanagan University College, BCIT and Douglas College).

◆ *Educational program leading to an RPN*

Douglas College is the only institute offering psychiatric nurse education (diploma) in the province. It has experienced a decline in enrollment interest in the past several years. In 1998 only 66 new graduates registered with the College of Registered Psychiatric Nurses. However, in the most recent January 2000 program enrollment was full. Douglas College RPN graduates easily find employment in community mental health, long-term care facilities or Riverview Hospital, among others. A marketing campaign has been undertaken to maintain and increase enrollment.

### ***Student Applications for Nursing Education Programs***

The Nursing Education Council of BC (NECBC) reports that the total number of nursing applications<sup>52</sup> rose by 50% from 1,735 applications in 1995 to 2,622 applications in 1998. However, capacity increased by only 12% (about 109 seats) to a total of about 956 seats in 1999. In 1998, 659 new graduates registered with the RNABC.

The NECBC acknowledges that its information with regard to applicants and waiting lists is not complete. Some institutes do not keep waiting lists and there is no mechanism for determining how many applicants apply to more than one college or university. However, regional reports support the demand for an immediate increase in the number of nursing seats. BCIT reported 350 applications for the 48 spaces available in the August 1999 intake. The Okanagan University College reported 84 qualified applicants competing for 59 spaces. University College of the Cariboo provided places for 56 students out of 170 who applied for the fall 1999 intake.

There is some data to suggest that nursing's popularity as a career choice is declining. Ryten<sup>53</sup> used data from the Ontario Universities Application Centre in an attempt to measure the demand for nursing education. The database, which monitors every application to an Ontario university program, showed that the number of applicants to Bachelor of Science Nursing programs has remained below its 1976 level since the beginning of the 1990s. The data also indicate that nursing has experienced a steady decline as a preferred career. Until 1985, nursing was the first choice for over 80% of applicants. By 1996, the figure had dropped to 72% and in 1997, nursing was the first career choice for only 69% of applicants to nursing programs.

Determining the optimum number of nursing program seats will require standard reporting and monitoring processes throughout BC with close co-operation between post-secondary institutions, MAETT and MOH. While it is clear that more seats could be filled immediately, there is currently no accurate method of predicting how many seats will be filled in the future, irrespective of need.



***Attrition from Nursing Education Programs***

NECBC reported to the Committee that there is an attrition rate of approximately 20% from nursing programs generally. However, MAETT was unable to confirm this figure. Additionally, attrition from any one program may not translate directly into “empty” nursing seats because vacated seats may be filled by other students through “bridging in” from other educational programs, “laddering” from previous health care positions (such as LPNs) and students returning from a period of absence from school (e.g. absences for child-bearing, employment or personal reasons). Overall, there appears to be no conclusive data as to the actual attrition rate.

**RECOMMENDATION 5:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to collect and report, in a format usable by health authorities, accurate information about applicants, admissions, class size, graduates and follow-up of graduates in all nursing education programs.**

**RECOMMENDATION 6:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to investigate the degree, timing and causes of attrition from nursing education programs and whether there are preventable factors associated with such attrition.**

***Nursing Cooperative (Co-op) Education***

To the best of the Committee’s knowledge, there are no nursing co-op programs in Canada. At the Committee’s request, the CNA polled professional associations in all provinces/territories for information on nursing co-op programs. The following information was obtained:

- the University of Manitoba is proposing a co-op program for 2000 (no information posted on their web-site to date).
- the Northwest Territories has set up a "Northern Development Program" to allow students to work in areas in which they are studying during the summer (between semesters). The program is available for any Health and Social Services based program but is not considered a co-op *per se*. Students are paid a lump sum.

Co-op programs have been promoted by the provincial government since 1979 as a means of attracting qualified post-secondary students to the public service and providing students with the opportunity to integrate academic preparation with relevant work experience.<sup>54</sup> Students come from undergraduate and graduate programs in a variety of disciplines, including engineering, economics, geography, leisure studies, health information science, computer science, law, public administration and environmental studies. Students are selected through consultation between the appropriate ministry and the educational institute. The provincial co-op program is

considered beneficial to all parties as it provides payment to students during part of their education; gives students “real-life” experiences in the course of their education; helps to bring “new ideas” and current theoretical knowledge to the workplace; helps ministries develop a pool of potential employees; and supports the youth initiative in government.<sup>55</sup>

Discussions with representatives of the University of Victoria Collaborative Nursing Program indicated a willingness to once again develop a co-op model and take it forward to MAETT. The co-op placements would provide both financial support and practical clinical experience that eases entry to the workforce. Educators report that it would be possible to complete the program within a four-year time frame.

**RECOMMENDATION 7:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to continue discussions with providers of nursing education regarding the establishment of a co-operative nursing program.**

***Refresher Programs***

Refresher Programs for nurses interested in returning to practice following a career break are offered at:

◆ *Malaspina University College*

This university college has one intake a year for a program lasting six months. They usually have 8 nurses per intake but this year, due to demand, they have increased the intake to 16. A waiting list is not kept but an increase in enquiries was noted in 1999, to the point that they would like to offer a second intake. They currently do not have funding to offer another course.

◆ *Kwantlen University College*

This university college offers two programs of approximately six months each per year with a capacity of 20 nurses per program (40 per year). In September 1999, demand for the refresher course was not any greater than usual.

However, Kwantlen University College also offers a refresher with English as an Additional Language (EAL) component (21 seats) and this is reported to be consistently over-subscribed with 80 to 100 enquiries for these seats at every intake. The nine-month course is designed to enable foreign-educated nurses to adapt to Canadian nursing.

◆ *Open Learning Agency*

The Open Learning Agency (OLA) refresher program reported having about 200 nurses enrolled at various stages of the course in September 1999. It is being offered all over the province, mainly by self-study, so it is an attractive option for nurses who can not leave their communities. The course is completed in two stages, the first taking between eight and twelve weeks and the second taking from 14 to 24 weeks. More nurses could be accommodated through OLA but the issue of clinical placements prohibits expansion, especially in the lower mainland.

◆ *Foreign Graduate-EAL programs*

As noted, Kwantlen University College offers a nursing refresher program with an EAL component to enable foreign nurses to adapt to Canadian nursing. Components and skills taught within these refresher programs include:

- the role of the nurse within the Canadian health care system;
- structure and functioning of the Canadian health care system;
- Canadian values;
- English language and communication skills;
- résumé writing skills;
- review of theoretical / knowledge components;
- building of assertiveness skills;
- upgrades in surgical standards; and
- upgrades in clinical standards.

Nurse educators teaching these programs emphasize that many foreign nurses need significant support to build confidence and assertiveness. They suggest that mentorship programs for foreign recruits expand.<sup>56</sup>

The Ministry responsible for Multiculturalism and Immigration has recently chaired several meetings to address some of the issues that have been brought forth by foreign-trained nurses, academic institutions and employers. Preliminary discussions have occurred about a Sector Training, Information & Counselling (STIC) pilot project to assist foreign trained nurses make the transition into the BC nursing workforce, as well as the Provincial Nominee Programs' ability to assist skilled nurses entry into BC.

**RECOMMENDATION 8:**

**The Ministry of Health provide leadership through joint consultation with the Ministry responsible for Multiculturalism and Immigration regarding the Sector Training, Information & Counselling (STIC) project, the Provincial Nominee Program and other similar initiatives.**

***Entry to Practice Requirement for Registered Nurses***

The basic entry to practice requirement for RNs is a matter of long-standing controversy.<sup>57</sup> The RNABC and the NECBC, in keeping with the CNA and other provincial regulatory bodies, promote the goal of a baccalaureate degree as the entry to practice by the year 2005. The CNA will begin implementation of a revised national examination in June 2000. RNABC is in the process of adopting a new standard of expanded competencies for RN entry to practice. The BC legislative framework does not require government approval for these changes. RNABC, as the licensing body, has the right to approve educational qualifications preparatory to entry to practice.

There has been an increase in the percentage of new graduates who are obtaining their nursing education at the baccalaureate level. In 1988, only a small percentage (6%) of practicing nurses in BC had received baccalaureate degrees preparatory to practice. By 1998 that number had increased to 45%.

Responses to the Committee's request for input from nurses and employers were mixed on the matter of baccalaureate as entry to practice — support and opposition was received from both groups.

Supporters of the baccalaureate degree as entry to practice argue that the changes in the health care system, the increasing complexities of technology and treatment, and the emphasis on health promotion and disease prevention require a more in-depth clinical preparation. Opponents of the position note that the vast majority of RNs currently working in BC (approximately 75%) are diploma prepared and these nurses are competent, valuable professionals. As the Seaton Commission<sup>58</sup> noted, making the baccalaureate the minimum requirement for entry to nursing practice is inconsistent with the principle that employees within the health care system should not be required to have a higher level of education, training, or accreditation than is necessary to perform the required tasks. Opponents further claim that movement toward baccalaureate as the entry to practice requirement will not only extend the time that it takes to educate a nurse, but it will also be unnecessarily costly to the health care system and influence the overall supply of entrants into the nursing profession. A baccalaureate requirement may reduce enrollment in nursing programs, as some students may not have the interest, finances or qualifications to attend university. As well, at the university level the nursing profession competes with other professions that may be seen as having a "better image" and higher pay (e.g. law, dentistry, and medicine). Additionally, increasing credentials for RNs may influence the demand for nurses and ensure that some level of shortage always exists.

Although a number of provinces offer only baccalaureate education programs, all jurisdictions recognize both the diploma and baccalaureate for entry to practice. In December 1998, the Conference of Deputy Ministers of Health indicated their continued support for diploma education as an entry to practice qualification.

Educators express concern that with the planned changes to the CNA exam and the anticipated revisions to the competencies required to practice, students of diploma programs will not be prepared to successfully write the exam and commence practice. In the Maritimes and Manitoba the baccalaureate degree is the only path of entry into the nursing profession as of 2000. Recently, both Manitoba and Saskatchewan's support of the new competencies began to erode. The BC Deputy Minister of Health recently wrote to other western province deputy

ministers, requesting support for a three-year delay in the implementation of a baccalaureate as entry to practice requirement.

Given the existing shortage of nurses and the anticipated worsening of the situation, any increase in the necessary preparatory time for nursing graduates and any decrease in the number of new graduates will have a negative impact on the available nursing population. Therefore, while the Committee is not opposed to baccalaureate education for nurses, we do not support it as the entry to practice level requirement.

**RECOMMENDATION 9:**

**The Government of BC continue to support diploma preparation as an entry to practice level requirement for Registered Nurses.**

***Clinical Placement Preceptorship***

A component of any RN or RPN basic education program involves clinical placements. Nursing students are assigned to provide nursing care to a specific patient/resident/client individual or group as part of their clinical learning experience.

The amount and type of assistance and direction required by students during clinical placement varies according to a number of factors. Students are at different levels of ability during these clinical placements, due to individual progression and because these placements occur throughout the course of the nursing education. The patients/residents/clients involved also have different levels of acuity and needs. As well, many specialty education programs (i.e. those that are taken by nurses who have already obtained their basic education and have entered into further training in a specialty area of nursing, such as OR, ICU, etc.) also have a clinical placement component.

Assistance and direction to students in their clinical placements is provided primarily through two methods. Initially, groups of basic education students are accompanied during their clinical experience by an instructor from the educational institute they attend. As they progress through their studies, and in post basic specialty programs, students are assigned to nurses working on the ward, service or location where the student assignments occur. A nurse who so assists and directs a student during the student's clinical experience is known as a "preceptor".

The issue of preceptorship has raised practical difficulties for nurses who are assigned as preceptors, for educators and for employers. In June 1999, a group of educators, RN preceptors, nursing managers and representatives from the Committee met to discuss the issue and brainstorm possible solutions. It was generally agreed (and reported independently by the NECBC and the RNABC) that it is becoming increasingly difficult to ensure an adequate supply of RNs willing to act as preceptors. Many nurses and nurse managers feel that due to the current workload, they do not have the time or energy to effectively provide student nurses with the support they need. Employers are being asked to find additional funding to provide staff to offset some of the workload so that preceptors can concentrate more fully on assisting and

overseeing the students; and educators are finding it increasingly difficult to arrange acceptable clinical placements.

Difficulty in securing preceptors has an impact on nursing education programs and students' learning opportunities. The reduction in beds and the increase in patient turn-around means that fewer units are suitable for student placement and increasing the number of students on those units that are suitable puts additional strain on the staff nurses. Therefore, clinical instructors from the colleges and universities are also finding an increasing workload as they struggle to supervise students on a number of different units.

With any increase in nursing education seats, the system will face very real problems ensuring that student nurses are provided with preceptors for clinical placements. The largest demand for preceptors occurs in the clinical placements carried out in the final stages of the basic education programs. However, educators report an increasing need for preceptors during the junior placements as well. Diploma programs require about thirty twelve-hour shifts (360 hours) of preceptored time, while a degree program requires between 500 and 600 hours. The amount of preceptored time for specialty courses varies widely.

Another issue that was drawn to the Committee's attention is that core curriculums and roles expected of preceptors vary between the educational institutions. These differences can cause confusion and stress for preceptors, other nursing staff and managers who have students from more than one educational institution utilizing their facility or site.

**RECOMMENDATION 10:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to investigate the different core curriculums, expectations and roles of preceptors and standardize these where appropriate.**

**RECOMMENDATION 11:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to assess the availability and use of clinical placement co-ordinators and expand the use of such positions where appropriate.**

***Mentorship***

It is recognized by both employers and nurses that when new graduates enter the profession and take their first job, they require some time and assistance to be fully comfortable in that role. In their responses to the Committee, nurses, employers, professional nursing associations, and academics across Canada identified the orientation and support of new graduates as a key recruitment and retention strategy. The following range of activities were suggested:

- lengthened orientation programs;
- summer employment and cooperative education programs;
- six month mentorship programs;
- nurse advocate programs; and
- reward and recognition for mentors.

Many of these activities were also noted by the CNA, with a focus on the importance of orientation and mentorship in the workplace.<sup>59</sup>

RNABC reports that the support of beginning practice is important for the recruitment and retention of new graduates. In the RNABC New Graduate Survey,<sup>60</sup> 28% of new graduates reported that their orientation was too short, specifically commenting on the limited number of buddy shifts and information on unit-specific protocols. This report raises the question of “job ready” compared to “practice ready”.

Educators describe their role in the context of practice ready. That is, schools of nursing prepare graduates to successfully meet the competency requirements as tested in the national nursing exam. Conversely, employers expect nursing graduates to be ready for work, i.e. job ready. When surveyed in 1999, many employers reported on the reduced readiness of new graduates for nursing work. As employers assume this responsibility, increasing operating resources are used to fill a role they see as formerly conducted by the education sector. There is no funding recognition of this new employer role.

Mentoring based on partnership and mutual respect can contribute to effective clinical learning. Successful mentorship programs may also be dependent on the role of the mentor. Andrews and Wallis<sup>61</sup> in their literature review on mentorship and nursing establish the importance of the nature and quality of the mentoring relationship. Characteristics of a good mentor included approachability, positive teaching role, and professional development ability. Megis<sup>62</sup> noted that organizations need to develop and educate both preceptors and mentors.

A successful mentorship pilot program was conducted in 1999 by South Fraser Health Region. This program was supported by BCNU and the RNABC, was conducted in partnership with Kwantlen University College and the University of Victoria and was assisted with financing by the HLAA. Fifteen new graduates who had been hired as casuals accepted 15 week temporary full-time or part-time postings on medical-surgical wards. An experienced nurse from the unit was assigned as a mentor to each new graduate. Additionally, a clinician was assigned one-half day per week to provide clinical and problem solving support to the mentor/mentee pairs. Specific orientation, workshop and assessment/debriefing sessions were part of the project. South Fraser Health Region is currently offering another mentorship program with BCNU's support.

**RECOMMENDATION 12:**

**The Ministry of Health work with the Ministry of Advanced Education, Training and Technology and health authorities to explore the option of making joint appointments of clinical nurse educators to provide clinical and problem-solving support and mentoring for nursing students and new graduates.**

***Laddering***

Laddering is a process that allows one to build upon previously earned credits or credentials, either from secondary or post-secondary institutions to smooth the transition between levels of an educational program.<sup>63</sup> One of the necessary components of laddering is the ability to assess the skills and knowledge of participants and provide them with a course of action to further develop their skills. This is often accomplished through the use of Prior Learning Assessment and Recognition (PLAR) modules. An oral presentation was made to the Committee by HLAA to highlight the successes it has had with modules it has developed. PLAR modules have been used in LPN upgrading to RN, residential care aide programs, LPN refresher programs and residential care aide upgrades to LPN.<sup>64</sup> Kwantlen University College, North Island College and Malaspina University College are developing and/or utilizing PLAR modules for nursing programs.

**RECOMMENDATION 13:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology facilitate laddering (through the use of methods such as Prior Learning Assessment and Recognition (PLAR) modules) with respect to Registered Nurses and Registered Psychiatric Nurses production and expand on them where advisable.**

***Education Supports***

Advanced education of any sort is costly. Information presented by the NECBC, along with numerous submissions to the Committee from nurses and health authorities and employers, point to the need for educational options that facilitate entry to the education system and then into the profession of nursing.

The cost of obtaining a nursing degree, together with the length of the program is often raised as a barrier to attracting people to the profession. While shorter in time and somewhat less expensive in fees and associated expenses, diploma program registrants also face escalating education costs. A number of suggestions to offset the costs were offered to the Committee including:



- resurrect provincial professional training grants;
- implement loan forgiveness;
- establish co-op education programs or programs that allow students to obtain income during their period of education;
- maintain a diploma exit option;
- provide mechanisms for on-going education once in the workforce;
- reduce the length of time to complete the degree by offering year round education; and
- ensure that educational programs are offered in as many satellite programs as possible.

**RECOMMENDATION 14:**

**The Ministry of Health and HEABC (with the NBA and other appropriate unions) explore the development of a “student nurse” training model for employment and learning opportunities between semesters.**

◆ *Scholarships*

There are a number of private and public sources of financial assistance for diploma, degree and post-basic nursing programs. Information on many of these are available from the RNABC Helen Randall Library including:

- a *Bursary Information Pamphlet*, prepared by the Registered Nurses Foundation and available in May every year;
- the *Funding Sources Directory*, prepared by the British Columbia Health Research Foundation; and
- *Sources of Funds for Nursing Education and Nursing and Health Related Research Projects (1996)*, prepared by the CNA.

The RNABC has also published a pamphlet that provides information on a number of sources of financial assistance such as the Jean Goodwill Scholarship, BC Medical Services Foundation, BC Nurses Education Fund, BC Student Loan Program, Canadian Nurses Foundation, Registered Nurses Foundation and SCA/CGNA Nursing Scholarship. As noted by the RNABC, other possible sources of financial assistance include schools of nursing, universities, employers, unions, local RNABC chapters, CNA affiliated interest groups, RNABC professional practice groups, Canadian Legion, pharmaceutical companies, churches, organizations such as the Lion’s Club, and health related organizations.

◆ *BC Health Care Scholarship*

The BC Health Care Scholarship was established in 1996 to assist health care workers retrain, upgrade their skills and keep pace with changing health care needs. Bursaries of \$3,500 are awarded three times a year to eligible students, based on financial need.

Between January 1997 and January 2000, 334 registered nurses were awarded a Health Care Scholarship Award. Of that number, 132 (40%) enrolled in a specialty nursing program with the distribution as follows:

**Table 14: RN Specialty Education Health Care Scholarships**

<b>B.C.I.T.</b>	
1	Advanced Diploma in Nursing
6	Bachelor Technology Nursing Specialty
31	Critical Care Nursing
36	Emergency Nursing Specialty
2	Neonatal Nursing
1	Nephrology
1	Obstetrical Nursing
2	Occupational Health Nursing
9	Operating Room Nursing
2	Paediatric Nursing
11	Peri-operative Nursing
15	Perinatal Nursing
3	Nursing Specialty (no course identified)
<b>St. Pauls Hospital</b>	
11	Operating Room – Post Basic
1	Peri-operative Nursing

Source: MAETT Health Care Scholarship data

From January 1997 to January 2000, the number of successful applications in the health care support sector who enrolled in a program leading to an RN was 179.

**RECOMMENDATION 15:**

**The Ministry of Health recommend to the Ministry of Advanced Education, Training and Technology that the BC Health Care Scholarship program continue.**

## 7. RURAL AND NORTHERN NURSING

Health authorities and nurses report the need for nurses in many health care settings located in rural and northern areas of the province is problematic. DTF vacancies were specifically reviewed in the northern regions of Peace Liard, North West, Cariboo and Northern Interior.

Overall, low numbers of DTF regular vacancies by category were reported. An exception was operating room DTF vacancies in the North West – reported at 6 positions, almost half of this region’s total DTF vacancies. No DTF regular vacancies were reported by Northern Interior; Cariboo’s report was similar. Peace Liard’s highest proportion of DTF regular vacancies was in acute care, which accounted for 57% of all their DTF vacancies at four positions. Higher DTF vacancy numbers were reported in the casual category. These DTF vacancies were predominantly in acute care, ranging from 30% to 43% of all DTF vacancies, and evident to a lesser extent in ICU and emergency.

As a proportion of total positions by sector or specialty, again the most significant were operating room DTF vacancies in the North West – 24% of total regular positions in the OR are vacant. In the casual DTF vacancy category, several regions’ difficulties, (within the 25% to 33% range) were identified in continuing care residential. From 40% to 60% of Cariboo and North West’s casual DTF vacancies were in ICU, emergency and operating room.

Although absolute numbers are small in comparison to the lower mainland, vacancies in rural and remote areas may be problematic and should be reviewed by each employer in the context of regular/casual staff mix and turnover.

Rural nursing includes a broad range of practice from outpost nursing to practice in both community and institutional settings. Nurses working in rural and remote communities throughout Northern BC have different work realities than their urban counterparts. Given the remoteness and distance from referral centers, unpredictable weather conditions, limited control over ambulance resources, lack of clerical and administrative assistance and few back-up resources, remote and rural nurses must be strong generalists and are expected to function in multiple roles and specialties. Many nurses in remote and rural areas provide care for patients requiring trauma nursing, primary care nursing, perinatal nursing, long-term care nursing; and medical-surgical nursing. They are may also be responsible for providing telephone advice, psychiatric care (e.g. crisis stabilization, detox and suicide prevention), home care services, health promotion, morgue access, fire dispatch and general information.<sup>65</sup>

Nurses who took part in a study<sup>66</sup> of rural and remote communities identified the following issues:

- duality of roles – both a nurse and community member (potential for professional conflict when caring for family and friends);
- visibility within the community;
- often are working alone;
- often the only “live” voice in the community during off hours;
- no assurance that appropriate resources will be available;

- heightened responsibility and accountability for acute care services;
- unpredictability of work / diversity of clinical situations;
- lack of community-specific standards and protocols for treatment approaches; and
- variable background and education experience of nurses and physicians.

MacLeod<sup>67</sup> suggests that improving rural nursing practice requires continuing education be offered within the community and reference materials (such as nursing journals and the Internet) be accessible. Furthermore, a consistent approach to patient care and standards to support practice should be made a priority. This includes the ability to access specialized health professionals, ensure the continuity of patient care and provide supports for new staff.

Rural nurses can be grouped into those who have either remained or returned to the rural setting in which they were raised, have found themselves transplanted from an urban area (often due to spousal employment), or have made a conscious decision to relocate from an urban to a rural area. Research has suggested that efforts to successfully recruit nurses to rural settings are viewed as considerably more difficult than retaining them.<sup>68</sup> Recruiting rural nurses may be problematic due to a decline in the rural population (including an outward migration of nurses); increased competition; and the former stability of the rural nursing staff which precluded many nursing administrators from routinely engaging in recruitment efforts.

Stratton et al<sup>69</sup> note that much of the research on recruitment and retention in rural settings has focused on nursing-related issues that are amenable to some degree of administrative control. They cite the most common enticements to be salary increases, overtime incentives, flexible scheduling, child care services, and tuition/education reimbursement, as well as non-cash incentives. However, they also note that job availability and a lack of viable alternatives have been shown to be prominent factors for nurses practicing in rural settings.<sup>70</sup> A 1993 study<sup>71</sup> concluded that “professional interaction” was the most significant barrier and hypothesized that nurses may not want to work at a facility with a history of poor professional interaction and working relationships. They proposed that gains may be made by developing strategies that facilitate improved professional interaction between nurses and other staff.

There are currently some programs and initiatives underway that focus on rural and northern health care and offer some direction to the Committee.

- Red Cross Outpost Nursing Hospitals have had great success in retaining rural and remote nurses. The Red Cross Outpost Hospitals are small facilities that deliver primary and emergency care, public health and some home care to remote communities. The Outpost Hospitals are staffed with one or two RNs with advanced clinical skills. There are no physicians working in these communities, but the nurses work in consultation and cooperation with regional hospitals and physicians. The Outpost Hospital program is administered in Vancouver while the hospitals are spread throughout the province. There are currently six Outpost Hospitals in BC located in: Alexis Creek, Atlin, Bamfield, Blue River, Edgewood and Kyuquot. Discussions with the manager of the program<sup>72</sup> indicate that retention success may be attributed to the following factors:
  - nursing staff belief in the mission and mandate of the Red Cross;

- nursing staff participate in an annual education week as a group;
  - due to the minimal size of the program, manager is able to diffuse issues more quickly and respond to practice /or nursing staff problems personally;
  - nursing staff have autonomy to develop programs that are suited to the health needs of the community;
  - there is a significant probation period; and
  - nursing staff have a strong relationship with the program manager.
- There is a Provincial Coordinating Committee on Remote and Rural Health Services (PCCRRHS) that was established for a term of three years. PCCRRHS makes recommendations to the Deputy Minister of Health and its members on issues relevant to the provision of health services to remote and rural communities. The PCCRRHS provides a forum for communication with stakeholders, and coordinates activities to enhance the accessibility and effectiveness of health services in the remote and rural areas of the province. The PCCRRHS receives reports from its members on current activities related to recruitment and retention of health care providers; the physician locum program; the physician outreach program; providers' human resources issues; proposed changes in service delivery systems; proposed changes in fund allocations; aboriginal health issues; provider education issues and client accessibility issues. Members of the PCCRRHS are appointed by the Deputy Minister of Health and include representatives from the following: Health Authorities; Aboriginal Interest Groups; UBC Faculty of Medicine; College of Physicians and Surgeons of BC; Canadian Society of Rural Physicians; British Columbia Medical Association; HEABC; Union of BC Municipalities; RNABC; Professional Association of Residents of BC and the Ministry of Health.
  - RN First Call<sup>73</sup> is a Ministry of Health program, co-sponsored by the RNABC and BCNU, involving 230 registered nurses in 12 rural communities. The development of this program involved collaboration between the RNABC, BCNU, HLA, the College of Physicians and Surgeons and the College of Pharmacists, among others. With RN First Call, RNs treat uncomplicated or minor emergency room visits. Patients with common, low-risk health problems such as colds, minor scrapes, bruises, nosebleeds and sore throats make up at least half of all emergency room visits. Nurses also assess patients with more complex health problems. After determining if a patient's condition is an emergency, RN First Call nurses contact the doctor on call. Based on consultation with the nurse, the doctor determines whether to come to the hospital at that time or provide direction over the phone. RN First Call is operating in the following communities: Ashcroft, Golden, Burns Lake, Fort St. John, Quesnel, McBride, Chetwynd, Ladysmith, Mackenzie, Valemont, Fraser Lake and Elkford. Programs such as this allow earlier discharge of patients which, in turn, can decrease the amount of additional nursing resources that would otherwise be required. They also add a different and unique dimension to nursing practice that is effective in retention strategies.
  - The Internet has also become an avenue for sharing nursing resources. Several health authorities are planning or beginning to utilize the internet for this purpose. Along with other regions, Simon Fraser Health Region has proposed a provincial process,

suggesting web based technology be used to place its recently refreshed nursing procedure programs on a web site with support for these programs through both an automated and a call-in line to clinical specialists on shift.

**RECOMMENDATION 16:**

**The Ministry of Health explore the expansion of RN First Call programs, particularly with interested rural and northern communities.**

**RECOMMENDATION 17:**

**The Ministry of Health fund an initiative to place supported nursing procedure programs on a website.**

**RECOMMENDATION 18:**

**The Ministry of Health request the Health Human Resources Advisory Committee to examine the Red Cross Outpost Nursing Hospitals' success in recruitment and retention.**

***Aboriginal Nurses***

A persistent difficulty exists in recruiting and retaining nurses for isolated and semi-isolated First Nations' communities.<sup>74</sup> However, as the majority of nurses providing services to First Nations' communities work either for the Medical Services Branch of Health Canada or First Nations' health authorities, the lead in recruitment and retention strategies has been taken by the federal government. A Working Group composed of representatives from Medical Services Branch nursing staff, First Nations' authorities and the Professional Institute of the Public Service (PIPS) began working in 1998 to develop a Nursing Recruitment and Retention Strategy. Recommendations were presented to the Branch Executive Committee in January 1999 and provide strategies that are broadly applicable to rural nursing (see Appendix 8).

Many northern health authorities have large First Nations' populations. Efforts to increase the number of aboriginal nurses working within the provincial health authorities could address retention issues as nurses with strong links to the area they work in are more likely to stay there.

In other parts of Canada, programs are in place to promote and encourage First Nations' members' enrollment in nursing programs. The Native Nurses Entry Program, in Thunder Bay, Ontario is a nine month preparation program designed to provide the necessary skills and academic preparation required for successful entry into the nursing degree program at Lakehead University. The program consists of two terms of 12 weeks each, as well as a two week field experience.

Four preparation courses (English, Chemistry, Mathematics, Biology) as well as three special purpose courses (Communications, Professional Orientation, Study Skills/Logical Reasoning) are provided. Those eligible for the Entry Program are mature or extraordinary students, health care workers who have completed a minimum of Ontario grade 10, and those who've completed at least one full year of study at the community college level in child care, community work or a related field.

The Nunavut Arctic College in Iqaluit and the School of Nursing at Dalhousie University have also collaborated on a baccalaureate program to prepare nurses for Nunavut.<sup>75</sup> The first class of Inuit students was admitted in October 1999. A provision of the Nunavut Act calls for 80% of the approximately 150 nursing positions in the new territory to eventually be filled by Inuit, who represent 85% of the territory's population. By bringing education "closer to home" the Inuit hope to increase accessibility to the nursing profession.

The Northern Advancement Program operates in the University of Northern BC catchment area to help students make the transition to university. Preliminary discussions have taken place regarding a special program aimed at students interested in entering the nursing program. While no definite plans are in progress, UNBC advises that it would be ideally suited for an Aboriginal nurses' entry program because there already is a significant focus on First Nations' health in the nursing curriculum. A number of post-diploma UNBC nursing graduates work in First Nations' communities.<sup>76</sup>

**RECOMMENDATION 19:**

**The Ministry of Health and the Ministry of Advanced Education, Training and Technology jointly explore the creation of an Aboriginal nurses' entry program.**

## **8. SPECIALTY NURSING**

As previously noted, DTF vacancies in regular specialty positions can substantively impact the ability to provide service. Provincially the greatest number of regular specialty DTF vacancies were reported in OR, ICU, Emergency and LDR departments. The number of casual DTF vacancies reported in ICU, OR and Emergency were similar in magnitude with DTF vacancies in PAR following.

In general, employers have been reporting difficulty recruiting experienced nurses for permanent positions in specialty areas, as well as for casual positions. This difficulty in external recruitment has led employers to undertake training of their internal nursing workforce which, in some situations, has aggravated shortages in med-surg areas. HLAA, which provides funding to employers for some specialty education needs, reports that the most significant specialty education shortages are occurring in critical care areas, operating rooms, emergency departments and in renal units.

Resources for specialty nurse training are minimal at the current time. Health care reform, advanced service delivery and technological change will increase the demand for specialty trained nurses. Therefore, strategic planning for specialty training is needed.

The existing mechanisms through which nurses may obtain specialty training include:

- Unstructured, on the job training.
- In-facility offering of collaborative training programs using resident experts, visiting instructors and regional partnering. Many health authorities are active in this field. For example (and by no means a complete listing):
  - Vancouver Hospital provides in-facility training and education for ICU, CCU and Cardiac Surgical Intensive Care. Prince George Regional Hospital and Penticton Regional Hospital both currently provide combined theory and clinical critical care programs delivered by resident clinical nurse educators.
  - Since 1986, St. Paul's Hospital has conducted an in-facility peri-operative (OR and PAR) nursing course that, on occasion, has participants from other employers. Richmond Hospital received development funding from HLAA and is currently delivering its own OR program. Perioperative nursing programs are also offered by Dawson Creek and District Hospital, Royal Inland Hospital, Prince George Regional Hospital and Bulkley Valley District Hospital.
  - Simon Fraser Health Region provides an in-facility program based on an American Association of Critical Care Nurses curriculum that was customized by the region to address local context of practice and standards. Richmond Hospital is currently implementing this program.
  - Naniamo Regional Hospital provides an Emergency RN program using a purchased curriculum.



- Perinatal programs are provided by the Fraser Valley Health Region and at Vernon Jubilee Hospital.
- A nephrology program is conducted by Kelowna General Hospital.
- Enrollment in a BCIT post diploma specialty nursing program. These programs are offered in a variety of ways, including regular part-time programs and through compressed time frame options. In some programs the theory component may be completed by distance education (using guided-learning modules with the support of a telephone tutor) followed by a full-time clinical course or practicum.

Over the years, BCIT has offered specialty training in a number of courses, including critical care, perioperative nursing, emergency nursing, perinatal nursing, nephrology, neonatal, pediatric and pediatric critical care. In 1998/99 BCIT offered specialty courses in emergency nursing, perioperative nursing and critical care nursing. A total of 253 students participated in these courses, 80 of which were enrolled in emergency nursing, 53 in perioperative nursing and 120 in critical care nursing.

**Table 15: Specialty Nursing Enrollments – September to December 1999  
(Emergency, Perioperative, Critical Care)**

Location of Participant	Emergency	Peri-operative	Critical Care	Total
East Kootenay	0	0	0	0
West Kootenay	0	0	4	4
North Okanagan	1	2	2	5
South Okanagan	6	0	1	7
Thompson	2	4	0	6
Fraser Valley	0	1	6	7
South Fraser	10	10	17	37
Simon Fraser	4	2	9	15
Coast Garibaldi	2	0	1	3
CVI	9	7	9	25
Upper Island Central Coast	4	3	0	7
Cariboo	0	2	2	4
North West	4	2	3	9
Peace Liard	2	1	1	4
Northern Interior	1	1	0	2
Vancouver	11	4	33	48
Burnaby	3	2	0	5
North Shore	8	1	7	16
Richmond	0	2	10	12
Capital	8	7	11	26
Unknown BC	0	1	0	1
Non-BC	5	1	4	10
Total BC	75	52	116	243
Grand Total	80	53	120	253

Source: MOH data

- Douglas College offers an RN Mental Health Program that is designed for nurses interested in working in psychiatric nursing as well as an Advanced Diploma in Psychiatry.

Decisions to offer specialty training are based upon existing budget, available human resources, the availability of clinical experts and access to resources. For example, smaller facilities do not have the capacity to train specialty nurses and therefore recruitment is their only option. Moreover, many facilities are reporting challenges in financing BCIT programs or difficulties in arranging participation in courses (because of timing, length and content of program, need for relief staff and instructors) and are looking for credentialled curriculum alternatives<sup>77</sup>(see Appendix 9). The need for improved communications between academic circles, health authorities and managers of clinical areas was identified to the Committee. A meeting between employer groups, MOH, MAETT, HLAA and BCIT was held in March 2000 to discuss the impediments, demand, supply and planning issues associated with specialty education.

**RECOMMENDATION 20:**

**The Ministry of Health request the Ministry of Advanced Education, Training and Technology to continue to assess and promote, where appropriate, the delivery of general and specialty nursing education programs in communities around the province on site or by distance education.**

## 9. RECRUITMENT

### *Public Image of Nursing*

Many of the submissions to the Committee identified the need to profile and market nursing as a positive career choice. Despite voiced concerns about nursing shortages and workload, many nurses also identified that they value nursing as a profession. Many employers expressed pride in their nursing staff and outlined positive initiatives that they had engaged in with their nursing staff in attempting to overcome the stresses that the past years have brought to health care. The Committee recognizes and appreciates the efforts of nurses and employers in recruitment and retention planning and strategies.

#### **RECOMMENDATION 21:**

**The Ministry of Health request the Health Human Resources Advisory Committee discuss strategies that will assist both those who recruit nurses and the NBA in presenting nursing as a positive career choice.**

### *Re-entry into the Nursing Profession*

In October 1999, the RNABC reported that there were 4,081 non-practicing RN members. Of that number, 2,439 were located in British Columbia. As of July 1, 1999 the College of Registered Psychiatric Nurses reported 391 non-practicing members and 136 dual qualified non-practicing members. Some of these non-practicing members are a potential workforce source.

Randawa and Durand<sup>78</sup> note that the main factors that influence nurses in returning to practice are family support, accessible refresher training, better resources, training opportunities and flexible hours.

As one of its initiatives, the Committee utilized a mailing service provided by the RNABC to contact non-practicing RNs located in BC and provide them with information about returning to practice, compensation, refresher program availability and a contact list of all health authorities and HEALTH MATCH BC. The Committee intends to send non-practicing RPNs a similar letter as soon as the current collective agreement negotiations are completed.

### *Current Efforts to Attract Nurses*

#### ◆ *Individual Employers and Health Authorities*

Individual employers and health authorities have been increasingly active in their efforts to recruit qualified nurses. These efforts have included developing employees within their existing organizations; extensive advertising campaigns in newspapers, periodicals and professional

journals; internet advertising through internal and external websites; soliciting employee referrals; utilizing employment agencies; promotions at nursing education institutions and forums and attendance at job fairs. Additionally, some employers have offered a variety of training or financial incentives to attract new hires. Concerns about such incentives have been raised by employers and nurses alike, who fear that an escalating “bidding war” will develop, morale in the existing workforce will suffer and that such strategies offer little assurances of continued employment of the nurse in the long-term.

### ◆ *Provincial Efforts*

HEALTH MATCH BC is a program that is funded through a grant from the MOH. The program’s original endeavors, which commenced in February 1996, were focused on recruitment of physicians for rural communities. After two years of successful physician recruitment MOH asked HEALTH MATCH BC to take an expanded and more pro-active role in the recruitment and retention of nurses and other health care professionals. HEALTH MATCH BC’s nursing recruitment services are offered on a province wide basis. The organization’s knowledge of rural and under-serviced communities provides it with a particular ability to be of assistance to employers and nurses who are interested in rural practice.

HEALTH MATCH BC provides the following nursing recruitment services:

- Registration of nursing vacancies on the HEALTH MATCH BC web-site ([www.healthmatchbc.org](http://www.healthmatchbc.org)) and web-site links to employer vacancy sites.
- Forwarding of résumés from nursing applicants who express interest in a vacancy or a community.
- Personal assistance to employers and nursing applicants by consultant staff who are knowledgeable about all regions in the province (particularly the rural and northern areas), professional registration requirements and immigration processes.
- Provision to employers of a reference manual “Recruitment Guide” which features an outline of recruiting strategies, selection process and up-to-date information on nurse registration and immigration processes.
- Preparation of “Nurse Information Kits” specific to communities which can be distributed to candidates who have answered a vacancy advertisement or expressed interest in a vacancy on the web site.
- Web site provision of information to nursing candidates on immigration, nurse registration processes and links to other nursing, nursing student and professional web sites.
- Assistance in the creation and production of trade magazine and journal advertising or direct mail campaigns and access to volume rates to reduce the costs of such production and placement.
- Assistance with co-operative approaches between employer groups for advertising and attendance at job fairs.

**RECOMMENDATION 22:**

The Ministry of Health promote and support the development of HEALTH MATCH BC's nursing recruitment efforts, including the development of a marketing/communication strategy aimed at keeping new nursing graduates in BC and repatriating Canadian nurses practicing in other countries. The NBA provide assistance as requested by HEALTH MATCH BC.

## 10. RETENTION

### *Personnel Turnover*

According to the Survey, during the reporting period of April 1 to September 16, 1999, there were 209 nurses who changed from regular full-time positions to casual status. Another 174 regular part-time nurses moved to casual positions. This data is employer payroll specific and there may be double counting of those nurses who change to casual status with one employer, to take a regular or casual position with another employer. This activity is most likely to occur in the lower mainland where there are multiple employers within reasonable commuting distance.

There may be a number of reasons that nurses change from regular to casual status, including lifestyle choice, workload reduction, and greater flexibility in hours and choice of work site or work unit (particularly for nurses with seniority).

Conversely, 986 casual nurses moved into regular positions with over half of these positions being full-time ones. 50% of the health authorities surveyed reported their turnover was the same as the year prior to the reporting period; the remainder were split between greater and lower turnover. However, 81% reported this turnover snapshot was a reasonable representation of the prior six months. Just over half expect a similar situation for the next six months.

### **Six Month BC Data on RN/RPN Workforce**

	Regular Employees		Casual Employees		Total Employees	
	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>
Start of Period	20,313	100.0	7,699	100.0	28,012	100.0
Hired	570	2.8	1,845	24.0	2,415	8.6
Casual to Regular	986	4.9	-986	-12.8		
Subtotal	1,556	7.7	859	11.2		
Left Employment	-812	-4.0	-1,172	-15.2	-1,984	-7.1
Regular to Casual	-383	-1.9	383	5.0		
Subtotal	-1,195	-5.9	-789	-10.2		
Net Effect	361	1.8	71	0.9	432	1.5
End of Period	20,674	101.8	7,770	100.9	28,444	101.5

**Notes:** All data are from the Survey, with the following adjustments ...

1. All "start of period" numbers are derived by subtracting 'net effect' from 'end of period'.
2. The numbers for casual nurses have been reduced by approximately 25% in order to adjust for over-reporting (*i.e. the same person working at more than one employer*), bringing the number more in line with ROLLCALL figures. This affects the following numbers for casuals: 'hired', 'left employment' and 'end of period'.

The BCNU Membership Survey asked nurses if they planned to leave the nursing profession in the next three to five years. Of approximately 900 members responding, 14% indicated they planned to leave in the next three years and 26% indicated they planned to leave in the next five years. The most significant reason for leaving (76% of those planning to leave) was retirement. Other significant reasons identified by the respondents were workload and lack of job satisfaction. Although there are the usual data issues associated with self-reporting polls and while “planning to leave” may not translate, in many circumstances, into actually leaving, the above percentages are a reason for concern. The supply model (developed later in this Report) uses lower attrition levels. If a high percentage of the nurses who reported that they were planning to leave actually leave, and if these poll participants are a reasonable reflection of the RN population, the system will face additional RN shortages in the near future. Any changes that have the effect of making it easier or more desirable for nurses to continue participation in the workforce, for example by delaying retirement, would have a positive impact on supply.

It should be noted that the BCNU Membership Survey results are consistent with the ROLLCALL attrition figures. The 1998 ROLLCALL figure (Table 8) for attrition is 1,630. Subtracting the 1998 ROLLCALL “reactivation” figure of 406 gives a result of 1,224. At this level, in three years, the annual number for net attrition would equal 12% (compared to 14% in the BCNU Membership Survey). The 1998 net calculation from ROLLCALL is lower than the average of the previous ten years.

### ***Supporting / Integrating New Graduate Nurses***

Some of the challenges facing new graduates and employers have been previously discussed in this report. The CNA recommends that employers may better assist new graduates by:

- assisting students in determining their preferred area of practice and then locating positions for which they are well situated;
- providing orientation programs tailored to the needs of the new graduate – specifically, educating students about the importance of organizational culture and suggestions for adaptation;
- identifying what attracts new graduates to employers during the recruitment process;
- assessing the benefits of internships, preceptorships, and mentorship programs;
- promoting collaboration between educational institutions and clinical practice settings; and
- implementing practices designated to promote teamwork and collaboration amongst all health professionals and new graduates.<sup>79</sup>

### ***Leadership and Best Practices***

Management leadership behaviours are key to influencing staff retention.<sup>80</sup> Leadership styles that empower nurses can decrease occupational stress and increase work effectiveness.<sup>81</sup> Leaders empower nurses by providing purpose and meaning to their work; helping them understand the importance of their role in the organization; soliciting their participation in decision-making processes; enhancing their skills; providing resources required for effective performance; showing confidence in their ability to perform at a high level; and promoting autonomous practice by removing multi-layered approval processes.<sup>82</sup>

During the nursing shortages of the early 1980's, studies on nurse satisfaction<sup>83</sup> evolved into material now described as the "magnet hospital" literature – hospitals with successful recruitment and retention during a nursing shortage. Later research postulated a connection between magnet hospital characteristics and positive patient outcomes. The key characteristics of magnet hospitals identified in the early 1980s were the following:

#### **Administration**

- Participatory and supportive management style;
- Well prepared and qualified nurse executives;
- Decentralized organizational structure;
- Adequate nurse staffing;
- Deployment of clinical specialists;
- Flexible working schedules; and
- Clinical career opportunities, e.g. clinical ladders.

#### **Professional Practice**

- Professional practice models of delivery of care;
- Professional autonomy and responsibility;
- Availability of specialist advice; and
- Emphasis on teaching responsibilities of staff.

#### **Professional Development**

- Planned orientation of staff;
- Emphasis on in-service/continuing education;
- Competency based clinical ladders; and
- Management development.

*Closer to Home, the Report of the British Columbia Royal Commission on Health Care and Costs*<sup>84</sup> also identified similar issues of nursing satisfaction, particularly meaningful participation in hospital operations. The Commission recommended that "nurses participate in clinical and administrative decisions in all institutions". In addition, the Commission encouraged the development of programs designed to enhance job satisfaction, employee self-esteem and patient care management skills.

The Committee was provided with information on an on-going research project, the *Hospital and Patient Outcomes: A Cross National Study*, which is part of an international research project



looking at the effect of certain hospital characteristics on nurses and patient outcomes. RNABC reports nurses have concerns about lack of adequate staff, lack of adequate support services, lack of adequate opportunity for staff nurses to consult with expert nurses, concerns about educational opportunities and lack of involvement in policy decisions. Data collection for the first component of the study has been completed and the researchers are currently discussing their on-going research and funding needs with their sponsors and the MOH.

**RECOMMENDATION 23:**

**The Ministry of Health review the findings of the *Hospital and Patient Outcomes: A Cross National Study* applicable to recruitment and retention of nurses when the data analysis is completed.**

One of the issues frequently mentioned to the Committee by both nurses and employers was the reduction over the past ten years of nursing leadership at the ward or program level. The reduction of practice supports (e.g. clinical nurse specialists, nurse educators, nurse managers and head nurse/supervisors) has led to dissatisfaction among many nurses who no longer have a readily available resource to turn to for clinical assistance. Many employers are also finding that the reduction of these supports has led to less effective human resources and planning information.

**RECOMMENDATION 24:**

**HEABC offer assistance to health authorities and employers in assessing and implementing change to current structures of nursing management to ensure that appropriate nursing leadership positions exist.**

The Partnership for Better Health Self-Care project (Telehealth<sup>85</sup>) is a two-year pilot being offered to 12,000 households throughout the Victoria area. This program provides information and resources to assist individual decision making about health care options. Families participating in the project were given the *Healthwise Handbook*, a guide that provides information about common health problems, and provided with phone access to a registered nurse for consultation and direction as necessary. Initial assessment of the program shows that it assists in effective use of health care resources – since its start-up, emergency room visits for minor complaints have dropped 12%. This program is of assistance in recruitment and retention of nurses for reasons similar to those identified for RN First Call.

**RECOMMENDATION 25:**

**The Ministry of Health explore the expansion of the Telehealth program to interested health authorities.**

Many health authorities and employers shared information with the Committee about practices and initiatives that they found to be positive factors in retention and recruitment. Such practices included extended orientation programs, approaches to advertising, reduction of overtime needs through the creation of regular positions on a cost-neutral basis, development of peer mentoring programs, in-house education programs, region-wide job application process, and activation of nurse recruitment and retention committees. A brief overview of some of the initiatives reported to the Committee is contained in Appendix 10 to the Report. While the data gathered in the Survey showed no major retention issue at a provincial level, individual health authorities (particularly those who share a labour market) may want to look at leadership factors and best practices to enhance their particular organizations' recruitment and retention abilities.

### ***Career Development***

Career development is important to individual nurses and the process of organizing human resources. While training is often a response to changing characteristics of jobs, career development is a more comprehensive and systematic way to manage changes in both jobs and employees. Career development allows employers and employees to deal with changes that take place over time, by matching individual abilities and aspirations to the needs of the organization. Even when jobs remain relatively unvarying, employees' energy levels, interests and abilities change over their work life.

Career development programs produce several positive results<sup>86</sup> including:

- Assisting an organization to ensure that needed talent will be available in a planned manner. Working with individuals to help them better align their needs and aspirations with the changing needs of the organization increases the probability that the right people will be available to meet future requirements.
- Improving an organization's ability to attract and retain talented personnel. Many potential employees prefer employers who demonstrate a concern for their future. Employees already working in an organization that offers career advice may exhibit greater loyalty and commitment.
- Reducing employee frustration by focusing on realistic expectations. As the educational level of employees has risen, so have their occupational aspirations.

Career counseling is an important part of career development. The following are important components of manager-employee assessment and planning:

- The employee's career goals, aspirations and expectations for five years or longer.
- The manager's assessment of the opportunities available and the degree to which the employee's aspirations are realistic and match the opportunities available.
- Identification of what the employee should do in the way of self-development to qualify for new opportunities.
- Identification of a plan for development activities or new job assignments that would enhance employee skills and abilities.

Career development workshops, where managers and employees identify and discuss opportunities and challenges, are also beneficial. These workshops can be general or they can be designed to deal with issues which are common to certain groups of employees, e.g. new graduates, experienced nurses, etc.

Periodic job changes can also help stimulate career growth by giving employees a variety of experiences that offer diversity and new challenges can stimulate career growth. The CNA vision statement notes that “nurses continually expand their expertise and knowledge through formal and informal professional development”<sup>87</sup> and supports the view that participation in continuing education is important for the retention of nurses.<sup>88</sup> Many nurses seek organizations that value education and provide opportunities for personal and professional growth.<sup>89</sup>

In one study,<sup>90</sup> nurses rated inability to leave the nursing unit because of patient responsibilities as the top restraining factor to participation in educational sessions. One recommendation by the researchers was to bring the educational sessions or professional development activities to the bedside. Another way to increase the accessibility of individual professional development is to use clinical narratives as an educational tool.<sup>91</sup> Clinical narratives involve having nurses describe nursing practices with managers, clinical nurse specialists and peers. Such narratives also make nurses’ work more visible and allow greater numbers of nurses to learn from their peers’ experiences.<sup>92</sup>

The Simon Fraser Health Region Professional Enhancement Program, being trialed at Royal Columbian Hospital, was developed to foster and support professional development opportunities for nurses. The program provides paid release time so nurses may pursue specific professional development projects in the areas of professional enrichment, writing, research and nursing grand rounds. The program’s intention is to promote professional development activities, identify questions that will stimulate scientific inquiry and promote clinical practice changes that will have a positive impact on patient care.<sup>93</sup>

**RECOMMENDATION 26:**

**HEABC offer assistance to health authorities and employers to assess potential enhancements to Registered Nurse and Registered Psychiatric Nurse recruitment and retention efforts. The NBA request its members to assist with these efforts.**

## **11. DATA SOURCES AND HUMAN RESOURCES PLANNING**

### ***Synopsis of Data Sources***

A comprehensive mechanism for tracking nurse supply, utilization and production in the province does not exist. Data on nurses are available in various sources from areas such as RNABC, the College of Registered Psychiatric Nurses, the Health Human Resources Unit at UBC, MOH departments and educational institutions. However, these nurse data sources are not comprehensively linked, which hampers in-depth analysis, monitoring and planning.

The majority of BC nursing data is based on registration information self-reported annually to the RNABC. The College of Registered Psychiatric Nurses provides statistical data collected in the same manner. The ROLLCALL, Inventory, Canadian Institute of Health Information (CIHI), Census and CNA databases are all secondary databases that obtain their statistics from RNABC and the College of Registered Psychiatric Nurses. Much of the information provided in the above databases is supply related. The Health Sector Compensation Information System (HSCIS) is the only database that collects direct information on nursing demand and utilization. Information for HSCIS is obtained from employers and pertains to nursing numbers, wage rates, type of employing facility, nursing title and classification. There are no unique identifiers to prevent double counting in the HSCIS database. Other data sources include databases belonging to HEABC, BCNU, Healthcare Benefit Trust, WCB and the Municipal Superannuation and Public Service Pension Plans (see Appendix 11). One of the obvious limitations in many data collection processes is the lack of unique identifiers.

#### **RECOMMENDATION 27:**

**The Ministry of Health recommend that for the purposes of establishing the reliability of future data collection a method is developed (e.g. assigning a unique identifier) to avoid duplication in counting.**

#### **RECOMMENDATION 28:**

**The Ministry of Health recommend to the Health Human Resources Committee that it promote the establishment of a website to link groups and individuals with a professional interest in health human resource issues, and to provide a site for exchange of relevant health human resource information.**

***Health Human Resource Planning and Database Development***

The Ministry of Health has defined the overall purpose of health human resource (HHR) planning is “to ensure the appropriate numbers, training, and distribution of health professionals to meet the health care needs of the population, at a cost society is able to afford”.

While the following sections focus on RNs and RPNs, these professional groups cannot be viewed in isolation. For example, the efficacy of increasing the supply of RNs or RPNs by upgrading LPNs is affected, in part, by whether or not there is a shortage of LPNs.

As the education system is the main instrument for reconciling supply and demand for credentialed occupations, the need for planning increases according to the length of education required for entry into practice. Where the education program is two years or more, failure to identify a potential problem until it is an actual one can have serious consequences for the system.

Thus, there is a need for a planning horizon that at least corresponds to the time it takes to respond to a supply/demand mismatch. The time between the identification of a shortage (or surplus) and the ability to respond to it with an educational outcome is equal, at the very least, to the length of the educational program. In practical terms, the delay is almost invariably longer. In the case of a shortage or potential shortage, the relevant Ministry must be persuaded to increase funding to training facilities; training facilities must be convinced to gear up; the process of gearing up takes time; the additional education spaces must be marketed; etc. etc.

The significance of a particular relative mismatch depends on the size of the workforce – and nurses are by far the largest professional group in healthcare. A potential mismatch of 5% in regular nursing positions (a perfectly plausible scenario) means the system must find, or do without, 1000 nurses.

It is important to note that an HHR projection is not a prediction; it is a planning tool. We are not prisoners of our projections, marching inexorably onward to a fate pre-determined by our own arithmetic. We can intervene to alter the projected result, both on the supply side and on the demand side. Indeed, we have the *responsibility* to intervene, to promote the optimal human resource solution in terms of cost-effective and quality health care.

**◆ *Role of the Ministry of Health***

The MOH states that its role in health human resource planning is “to provide leadership, coordinate activities of other partners, and identify and fill the gaps”. Recently the MOH convened the Health Human Resources Advisory Committee, and re-committed itself to leading the development of HHR planning.

The Ministry’s vision “recognizes the benefits of developing high-quality, reliable information and analytical tools which can be used to inform all interested parties and in so doing furthers high-quality HHR planning in the province”.

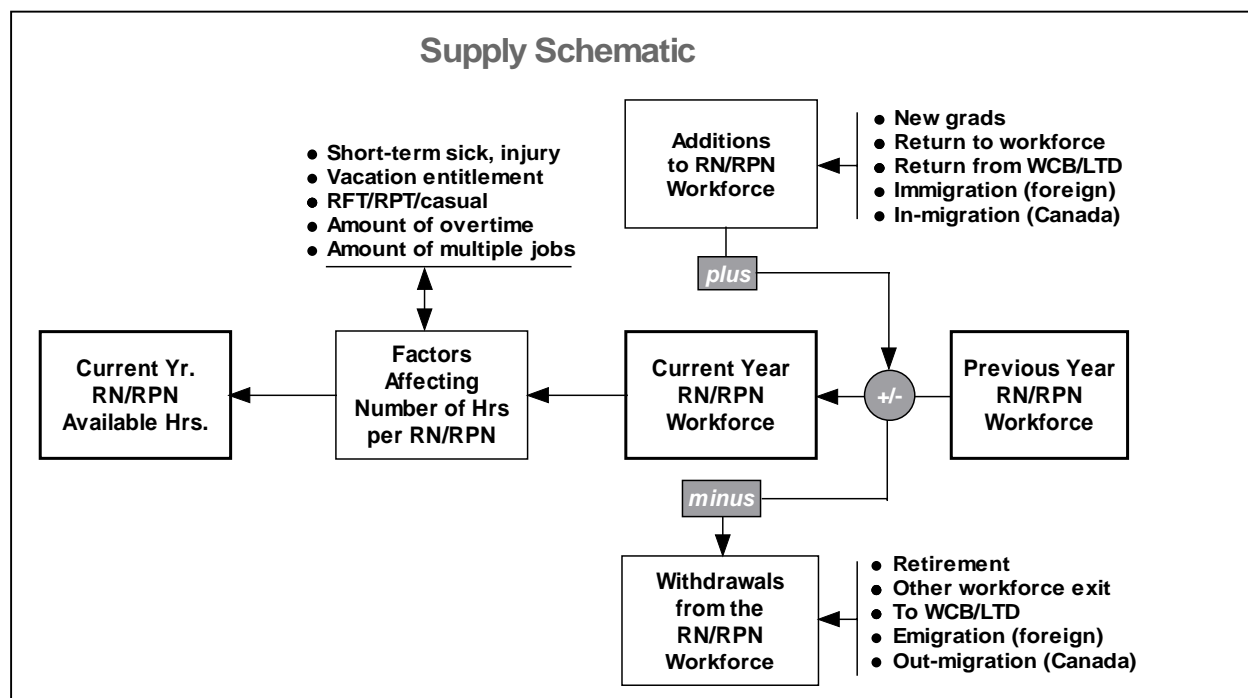
The Committee supports this initiative. This part of the Report is intended to be a contribution to the development of analytical tools as envisioned by the MOH. In particular, we focus (with respect to RNs and RPNs) on the first of a list of HHR goals set out by the MOH which is “to forecast or anticipate variation in the availability of and need for various categories of health care workers in the medium and long-term”.

◆ *Availability of RNs and RPNs (the “Supply Side”)*

In terms of the number of nurses available for employment, the biggest factors are:

- attrition from the existing workforce through
  - retirement and other permanent exit;
  - temporary withdrawal from the workforce (in particular, for child-raising);
  - long-term injury or illness;
  - emigration (to other countries);
  - out migration (to other provinces) and
- additions and potential additions to the existing workforce through
  - new graduate nurses;
  - return from temporary workforce withdrawal;
  - return from long-term injury or illness;
  - immigration;
  - in migration.

Of the factors affecting the number of nurses at the provincial level, the most important ones numerically are retirement on the withdrawal side, and new graduates and in-migration on the addition side. Appendix 12 to the Report provides an outline of the types of questions that arise and the relevant data factors that may need to be collected and analyzed for planning.



Retirement, and other permanent withdrawals from the existing provincial workforce, can be modeled. This requires:

- a profile of the current RN/RPN workforce according to age; and
- a table of age-specific attrition/retention rates.

Reasonable information is available with respect to the age profile of the current nursing workforce. Data to develop age specific attrition/retention rates is more of a challenge – but even here a reasonable working profile can be constructed.

On this basis, a simple spreadsheet can be set up with the number of employees at each age in the base year in one column, and the age-specific attrition rate in a column beside it. Moving across the spreadsheet to the right, additional columns can “age” the workforce one year at a time and apply the attrition rate (or more accurately, the inverse of the attrition rate) first to the base year and then successively to each additional year (see Appendix 13).

On the supply side, this was essentially the concept Ryten applied to the Canadian RN workforce in her 1997 study<sup>94</sup> for the CNA. Ryten’s work was an important and timely contribution to understanding that we were moving from a surplus of nurses to a deficit. However, with appropriate additional information (such as the data from the Survey) the model can be taken forward to look at supply in terms of available hours, not just the number of nurses.

Aside from the existing workforce, the biggest supply factor with respect to the number of nurses is the number of new graduates. Although the quality of educational demand information is not very satisfactory, it appears that the current demand of qualified applicants is above present and future planned availability of ‘seats’ in nursing programs. The number of new

graduates in the future appears to be largely under the control of the government as funder of the post-secondary education system in the province. The current level of RN and RPN new graduates, from the combined output of baccalaureate and diploma programs, is about 700 per year. That should rise significantly in 2.5 to 4 years, assuming that the Interim Recommendation for 400 more nursing education seats is accepted and acted upon.

Rivaling new graduates, and in some years surpassing them as a source of RNs and RPNs new to the province, is in-migration and immigration. There is insufficient satisfactory information to determine with confidence the net effect of those factors. It appears that the net effect of inter-provincial migration favours BC consistently, when there are nursing jobs available, but the degree varies with the economic performance of BC relative to that of other provinces. Net immigration depends on whether there are nursing jobs available in BC, on international supply and demand for nurses, on legal constraints on immigration/emigration and on economic factors that determine the degree to which BC is perceived as a good destination.

A plausible scenario for net migration and immigration sees a positive but modest net figure in favour of BC for the short and medium term.

The number of nurses available for employment is not the only dimension of availability. Employment patterns in nursing are far from the traditional (predominantly male) full-time workforce. Less than 45% of working RN/RPNs are regular full-time employees. In terms of working hours, because of the prevalence of part-time and casual employees (and other factors discussed below and elsewhere) the statistical average nurse works about 980 hours per year. Initiatives that would increase that number (without decreasing the number of nurses) would have a big “supply side” impact. For that reason, it is also important to assess “availability” in terms of working hours.

One area of potential improvement is the industry’s record of absences due to injury and illness. Information from the Healthcare Benefit Trust, the WCB and the results of the Survey suggests that the average full-time employee misses about 245 hours per year due to injury and illness – about 15% of available hours (i.e. paid hours minus leaves, holidays and vacations). As discussed above, this is a significant factor in the availability of nursing services in terms of hours. It is important to confirm (or improve) and refine the data, so that the parties can use the information to identify problem areas and opportunities for improvement.

The practice of multiple nursing employment is also a factor in availability of nurses by hours. As depicted earlier at Table 12, multiple employment is a significant factor. Most employees who work at more than one job are in the part-time and casual category – and no doubt mainly within the casual part of that category. However, even in the case of nurses employed full-time, over 10% are working at more than one job.

The simplest way to deal with multiple employment in a supply model, at least where we have good information about the total hours worked, is to adjust the model to discount any over-reporting in the number of nurses. Once the model reflects an informed view of the number of nurses, the average hours worked per nurse can be calculated by dividing the total number of hours by the number of nurses. The model in the next section of this Report is an example of projecting availability in terms of hours as well as numbers of nurses.



The above discussion focuses on the provincial level. A similar model can be developed at the level of health authorities. Here, however, the rate of attrition will be greater, because it will include numbers of nurses who leave employment with one health authority and move to another health employer inside the province – data which do not affect provincial attrition. This will be more of a factor for some health authorities than others (with even more variability at the facility level).

A regional model for attrition is useful. Together with some projections and scenarios on the demand side, such a model can help a health authority determine the probability of supply/demand mismatches and

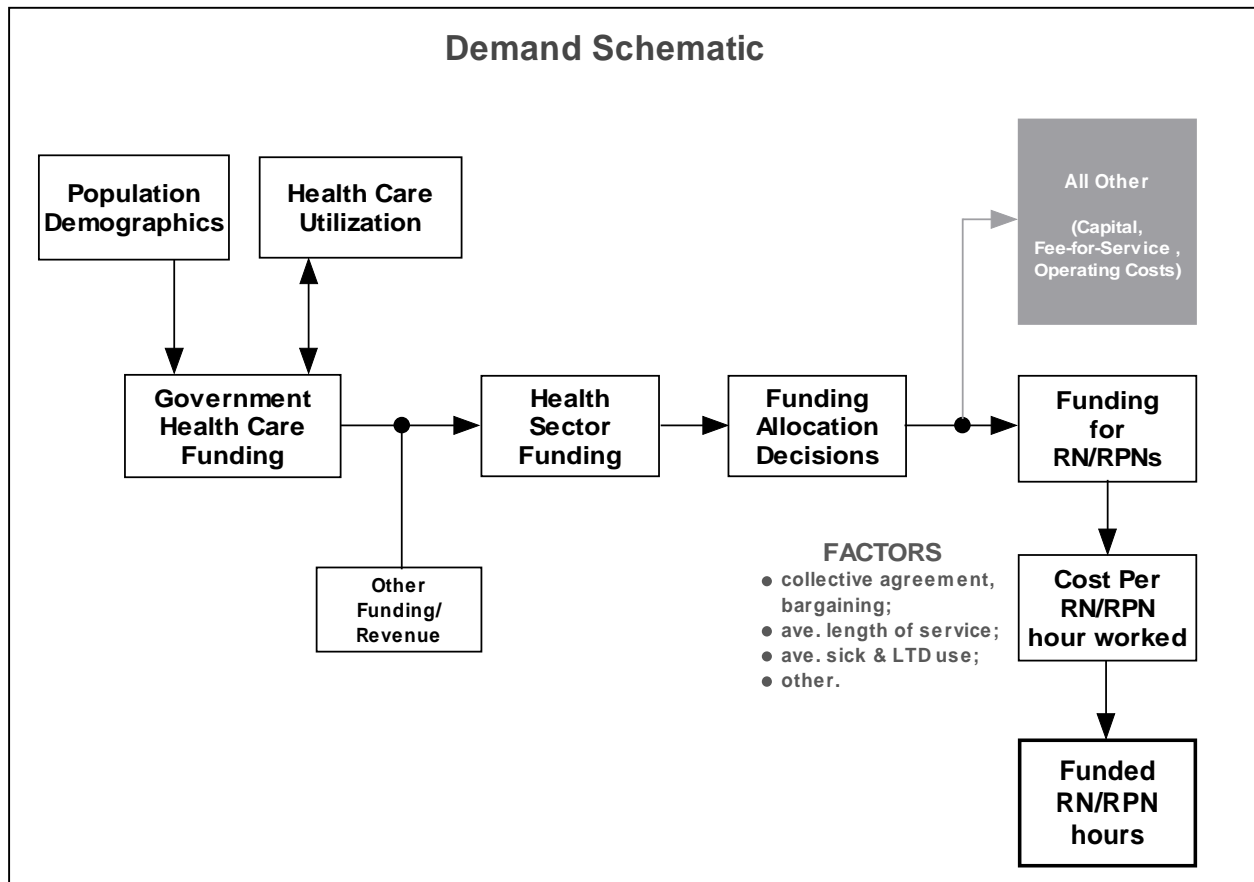
- adopt measures within its ability and resource priorities to change the factors leading to the potential mismatch; as well as
- alert the Province and provincial bodies (such as HEABC and the Healthcare Labour Adjustment Agency) to any mismatches that the health authority may be unable to respond to by itself alone, and/or where a potential mismatch appears to have significance beyond the jurisdiction of the health authority.

◆ *Need for RNs and RPNs (the “Demand Side”)*

Like supply analysis, demand assessment uses projections. Projections address changes in the size of the population and in its age (and potentially other characteristics that could be related to health needs or tendency to use health services). Population projections are available for the province as a whole, and by various administrative sub-divisions of the province including health authorities from BC Stats.

In assessing future demand, scenario-building is inevitable. It is useful to take note of past trends in utilization (of nursing and of health services generally) and in healthcare funding. But here we are faced with greater volatility than (for example) employee attrition, and a look into the future may include potential discontinuities and a wider range of potential outcomes than is suggested by trend lines. In the demand part of the model, the scenario is kept simple: it is assumed that utilization will improve to off-set the effects of population aging, and that supply side constraints will take effect before funding constraints.

One of the factors affecting demand for RNs and RPNs is the degree to which other staff are involved in the provision of direct patient care. The professional issues involved in staff mix are beyond the scope of the present report. Currently a study is underway looking at the utilization of LPNs. In the context of labour market planning, it should be noted that any increase in laddering provisions, enabling LPNs to become qualified as registered nurses – while constituting a positive factor in the supply of registered nurses, are to the same degree a negative factor in the supply of LPNs.



Note that funding is a demand factor – in some senses it is *the* demand factor. Whatever the demographic and utilization pressures, there will be no effective demand for increased hours unless they can be paid for. Our scenario, modeled below, assumes that the funding available for nursing services will be sufficient to maintain the same service density (nurse working hours relative to population) as the funding in 1999-2000 – although the model predicts that even at lower funding levels, demand would outpace supply.

**RECOMMENDATION 29:**

The Ministry of Health establish standards and assist health authorities, where necessary, to develop or enhance internal monitoring and reporting systems to enable health authorities to gather information on demographics, DTF vacancies and turnover.

**RECOMMENDATION 30:**

The Ministry of Health assist health authorities, where necessary, to develop or enhance health authorities’ capabilities for human resource analysis and planning.

**RECOMMENDATION 31:**

The Ministry of Health provide direction and make available any secretariat support required to assist fulfillment of the Health Human Resources Advisory Committee's responsibilities.

**RECOMMENDATION 32:**

The Ministry of Health continue to support the Health Human Resources Advisory Committee's activities related to establishing database elements and reporting requirements that are necessary for human resource modeling, analysis and planning.

## 12. Supply, Demand, and Shortfall

This section, by way of conclusion, sets out a model of supply and demand at the provincial level, which is intended to be somewhere slightly on the “best case” side of the mid-point between best and worst case scenarios (see Appendix 14, attached to the Report, for explanatory notes to this model).

	1999	2000	2001	2002	2003	2004	2005
<b>Supply</b>							
BC Grads		700	700	800	980	980	980
Net migration & immigration		300	325	350	350	350	350
Subtotal of above		1,000	1,025	1,150	1,330	1,330	1,330
Attrition of New Employees		-9	-18	-28	-40	-51	-63
Attrition of Current Workforce		-604	-646	-680	-711	-887	-789
Workforce participation rate	Assumes no net change in participation of RN/RPNs in workforce.						
Supply of RN/RPNs	28,731	29,118	29,479	29,920	30,499	30,891	31,369
Hours worked per nurse	984.6	989.5	994.5	999.4	1,004.4	1,009.5	1,014.5
TOTAL hours worked in 000's	28,288.3	28,812.7	29,315.7	29,903.7	30,634.7	31,183.4	31,824.5
Hours per 1000 population	6,992.2	7,029.9	7,037.9	7,055.7	7,102.9	7,106.7	7,132.0
<b>Demand</b>							
Population in 000's	4,045.7	4,098.6	4,165.4	4,238.2	4,313.0	4,387.9	4,462.2
Aging: population 80+ in 000's	124.7	131.8	139.0	145.9	151.9	157.9	163.2
Staff mix	Assumes no net change in RN/RPN proportion of work relative to others.						
Health service utilization	Assumes utilization improves to negate the effect of aging population.						
Funding	Assumes supply constraints take effect before funding constraints.						
Hours per 1000 population	7,201.5	7,201.5	7,201.5	7,201.5	7,201.5	7,201.5	7,201.5
Demand in 000's of working hrs	29,135.1	29,516.1	29,997.1	30,521.4	31,060.1	31,599.5	32,134.5
Demand for RN/RPNs	29,591	29,829	30,164	30,538	30,923	31,303	31,675
<b>Shortfall</b>							
Shortfall in 000's of working hrs	846.8	703.3	681.5	617.7	425.4	416.1	310.0
Shortfall in RN/RPNs	860	711	685	618	423	412	306

Note: Shaded rows indicate supply and demand factors assumed to be neutral for purposes of this scenario.

The bottom line is that the Province appears to be headed for a serious shortfall of nurses, unless there are changes in supply and demand factors. The point of the forecast is to identify prospects for change and to illustrate the reason why intervention is necessary and urgent. There are opportunities for proactive intervention by government, educational institutions, employers and unions that can make a positive change and significantly reduce the otherwise anticipated future shortages.

**RECOMMENDATION 33:**

The Ministry of Health and the Ministry of Advanced Education, Training and Technology, working jointly, significantly increase the number of basic nursing education seats (*above the already requested Interim Recommendation of 400*) and related support mechanisms to promote greater self-sufficiency in Registered Nurse and Registered Psychiatric Nurse production; and continue to monitor the on-going need for future nursing education seats and adjust the number of seats as appropriate.

The process of jointly reviewing the issue of nursing recruitment and retention has provided HEABC and the NBA with an opportunity to work together in a collaborative manner that has provided valuable information and insights. Due to the significance of this issue and the benefits of a joint problem-solving forum it would be beneficial for the parties to continue their collaborative efforts.

**RECOMMENDATION 34:**

The MOH, HEABC and the NBA develop a mechanism to jointly monitor and review the Recommendations, report progress and explore options.

## **ACKNOWLEDGEMENTS**

The Committee is grateful to all of the individuals and groups that responded to requests for input regarding the challenges facing nurses and to those who provided suggestions for improving the retention and recruitment of nurses in the province. We appreciate the time and efforts of Regional Health Authorities, Health Sector Employers, Individual RNs, RPNs and nursing students, Educational Institutions, Provincial and Territorial Ministries of Health, the Centre for Health Services and Policy Research at UBC and the Federal and Provincial Regulatory Nursing Associations in this regard.

The Committee is also appreciative of the timely and thought-provoking submissions and information provided by the RNABC, the College of Registered Psychiatric Nurses, HLAA, NECBC, BCIT, Researchers involved in the Hospital and Patient Outcomes study; HRDC; Health Canada; Healthcare Benefit Trust, HEALTHMATCH BC; Public Service Commission of Canada (Research and Analysis division) and the Aboriginal Nurses' Association of Canada.

On behalf of the Research Team, the Committee would like to specifically thank Nichola Manning (MOH) for her on-going contributions and assistance to the Research Team; Sharon Gundry and Hugh MacLeod (South Fraser Health Region) for their help and advice during the Survey development phase; Simon Fraser Health Region, Cranbrook CHC and Cariboo CHSS staff for testing the Survey; the staff at BCNU, HEABC and MOH offices for welcoming the team and assisting with report research and production; the MOH Regional Team Consultants for previewing the Survey results; and Peter Yao (BCNU), Linda Gee (MOH), Allison Spray (MOH), Christine Palmer (MOH), and Steven Lee (MOH) for their assistance in data compilation and analysis. The Research team is especially grateful to all of the Human Resource, Payroll and Nursing Department staff who completed the Survey and to the BCNU members who took part in the BCNU Membership Survey and the individual interviews.

## **SUMMARY OF RECOMMENDATIONS**

### **EDUCATION**

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to collect and report, in a format usable by health authorities, accurate information about applicants, admissions, class size, graduates and follow-up of graduates in all nursing education programs. (Recommendation 5)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to investigate the degree, timing and causes of attrition from nursing education programs and whether there are preventable factors associated with such attrition. (Recommendation 6)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to continue discussions with providers of nursing education regarding the establishment of a co-operative nursing program. (Recommendation 7)

The Government of BC continue to support diploma preparation as an entry to practice level requirement for Registered Nurses. (Recommendation 9)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to investigate the different core curriculums, expectations and roles of preceptors and standardize these where appropriate. (Recommendation 10)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to assess the availability and use of clinical placement co-ordinators and expand the use of such positions where appropriate. (Recommendation 11)

The Ministry of Health work with the Ministry of Advanced Education, Training and Technology and health authorities to explore the option of making joint appointments of clinical nurse educators to provide clinical and problem-solving support and mentoring for nursing students and new graduates. (Recommendation 12)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology facilitate laddering (through the use of methods such as Prior Learning Assessment and Recognition (PLAR) modules) with respect to Registered Nurse and Registered Psychiatric Nurse production and expand on them where advisable. (Recommendation 13)

The Ministry of Health and HEABC (with the NBA and other appropriate unions) explore the development of a “student nurse” training model for employment and learning opportunities between semesters. (Recommendation 14)

The Ministry of Health recommend to the Ministry of Advanced Education, Training and Technology that the BC Health Care Scholarship program continue. (Recommendation 15)

The Ministry of Health and the Ministry of Advanced Education, Training and Technology jointly explore the creation of an Aboriginal nurses’ entry program. (Recommendation 19)

The Ministry of Health request the Ministry of Advanced Education, Training and Technology to continue to assess and promote, where appropriate, the delivery of general and specialty nursing education programs in communities around the province on site or by distance education. (Recommendation 20)

The Ministry of Health and the Ministry of Advanced Education, Training and Technology, working jointly, significantly increase the number of basic nursing education seats (*above the already requested Interim Recommendation of 400*) and related support mechanisms to promote greater self-sufficiency in Registered Nurse and Registered Psychiatric Nurse production; and continue to monitor the on-going need for future nursing education seats and adjust the number of seats as appropriate. (Recommendation 33)

## **HEALTH HUMAN RESOURCE ACTIVITIES**

The Ministry of Health request the Health Human Resources Advisory Committee to advocate on behalf of BC at the federal level and monitor international and provincial/territorial reports on supply, recruitment and retention of Registered Nurses and Registered Psychiatric Nurses. (Recommendation 2)

The Ministry of Health request the Health Human Resources Advisory Committee discuss strategies that will assist both those who recruit nurses and the NBA in presenting nursing as a positive career choice. (Recommendation 21)

HEABC offer assistance to health authorities and employers to assess potential enhancements to Registered Nurse and Registered Psychiatric Nurse recruitment and retention efforts. The NBA request its members to assist with these efforts. (Recommendation 26)

The Ministry of Health provide direction and make available any secretariat support required to assist fulfillment of the Health Human Resources Advisory Committee's responsibilities. (Recommendation 31)

## **RESEARCH AND DATABASE DEVELOPMENT**

The Ministry of Health request the Health Human Resources Advisory Committee to examine the Red Cross Outpost Nursing Hospitals' success in recruitment and retention. (Recommendation 18)

The Ministry of Health review the findings of the *Hospital and Patient Outcomes: A Cross National Study* applicable to recruitment and retention of nurses when the data analysis is completed. (Recommendation 23)

The Ministry of Health recommend that for the purposes of establishing the reliability of future data collection a method is developed (e.g. assigning a unique identifier) to avoid duplication in counting. (Recommendation 27)



The Ministry of Health recommend to the Health Human Resources Advisory Committee that it promote the establishment of a website to link groups and individuals with a professional interest in health human resource issues, and to provide a site for exchange of relevant health human resource information. (Recommendation 28)

The Ministry of Health establish standards and assist health authorities, where necessary, to develop or enhance internal monitoring and reporting systems to enable health authorities to gather information on demographics, DTF vacancies and turnover. (Recommendation 29)

The Ministry of Health assist health authorities, where necessary, to develop or enhance health authorities' capabilities for human resource analysis and planning. (Recommendation 30)

The Ministry of Health continue to support the Health Human Resources Advisory Committee's activities related to establishing database elements and reporting requirements that are necessary for human resource modeling, analysis and planning. (Recommendation 32)

## **RECRUITMENT STRATEGIES**

The Ministry of Health continue its efforts to persuade Human Resources Development Canada (HRDC) and Citizenship and Immigration Canada to place nursing on the General Occupations List. (Recommendation 1)

The Ministry of Health provide leadership through joint consultation with the Ministry responsible for Multiculturalism and Immigration regarding the Sector Training, Information & Counselling (STIC) project, the Provincial Nominee Program and other similar initiatives. (Recommendation 8)

The Ministry of Health promote and support the development of HEALTH MATCH BC's nursing recruitment efforts, including the development of a marketing/communication strategy aimed at keeping new nursing graduates in BC and repatriating Canadian nurses practicing in other countries. The NBA provide assistance as requested by HEALTH MATCH BC. (Recommendation 22)

## **RETENTION STRATEGIES**

HEABC continue to assist employers with utilization of Article 17 of the NBA Provincial Collective Agreement to create regular temporary positions where it is operationally appropriate to do so. The NBA request its members to assist with these efforts. (Recommendation 3)

The Ministry of Health continue to support government initiatives to identify and mitigate work-related causes of injury and illness. (Recommendation 4)

The Ministry of Health explore the expansion of RN First Call programs, particularly with interested rural and northern communities. (Recommendation 16)

The Ministry of Health fund an initiative to place supported nursing procedure programs on a website. (Recommendation 17)

HEABC offer assistance to health authorities and employers in assessing and implementing change to current structures of nursing management to ensure that appropriate nursing leadership positions exist. (Recommendation 24)

The Ministry of Health explore the expansion of the Telehealth program to interested health authorities. (Recommendation 25)

## **ONGOING INVOLVEMENT**

The MOH, HEABC and the NBA develop a mechanism to jointly monitor and review the Recommendations, report progress and explore options. (Recommendation 34)

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## Endnotes

### Endnotes

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<sup>1</sup> Ryten, Eva. (1997) "A Statistical Picture of the Past, Present and Future of Registered Nurses in Canada". Ottawa: Canadian Nurses' Association.

<sup>2</sup> Canadian Nurses' Association (1997) "The Future Supply of Registered Nurses in Canada: A Discussion Paper". Ottawa: Canadian Nurses Association.

<sup>3</sup> The NBA is the bargaining agent for nurses working in the Health Sector in BC. The NBA is composed of five unions (British Columbia Nurses' Union (BCNU), Health Sciences Association of BC, Union of Psychiatric Nurses, Hospital Employees' Union and International Woodworkers' Association – Canada) with BCNU representing the largest proportion (96%) of the nurses.

<sup>4</sup> NBA committee members were Anne Harvey and Ivory Warner. HEABC committee members were Michael Marchbank and Mary Ferguson-Pare (initially) with Pat Coward joining the Committee in September 1999.

<sup>5</sup> MOH was represented by Rebecca Harvey. Jane Crickmore (MOH) assisted with the production of minutes for the meetings and provided summaries of all MOH information responses to the Committee.

<sup>6</sup> Johanne Fort (MAETT) and Irene Jansen (HEU) observed the Committee proceedings.

<sup>7</sup> The project team was coordinated by Peter Cameron, Peter Cameron Consultant Inc. MOH was represented by Rebecca Harvey with on-going assistance from Nichola Manning; the NBA by Patricia Wejr from BCNU and HEABC by Karen Jewell. Assistance during the research design phase was provided by Christine Bradley, Vancouver Hospital and Health Sciences Centre.

<sup>8</sup> Regional Programs, Ministry of Health and Ministry Responsible for Seniors Budget 1998/99

<sup>9</sup> Case rate refers to the rate per 1,000 population. A case rate is standardized for differences in the make-up of the population (e.g. differences in age).

<sup>10</sup> Population figure used to determine rates / 1,000 based on P.E.O.P.L.E. projection model, projection 22; Note: RIW information source: PURRFECT 5.0 – only counts BC resident procedures.

<sup>11</sup> Note: Inpatient Acute Surgical Cases are inpatient cases with one or more CCP codes present on the discharge abstract.

<sup>12</sup> Note: Inpatient Cases and Days include Acute, Rehab, and Long-term Care in Acute/Alternate Level Care Levels (no newborns)

<sup>13</sup> Note: Includes all residential services managed by CC (acute in extended, family care homes, group homes, cc residential, but excludes respite)

<sup>14</sup> MOH (1999). Review of Continuing Care Services in BC Report of the Steering Committee

<sup>15</sup> Note: Visit count based on the number of discharges within the fiscal year. As a result, visits may not be performed in the fiscal year of discharge. Figures include QRT type programs. Data in CC Warehouse are provided by the Health Authority.

<sup>16</sup> Canadian Nurses Association, "Annual Salaries and Hourly Rates for A Registered Nurse in a General Duty / Staff Nurse Positions Canada" July 1999.

<sup>17</sup> See, for example, "The Salary Calculator" at [www.homefair.com](http://www.homefair.com).

<sup>18</sup> Globe and Mail, March 15, 1999

<sup>19</sup> Ryten (1997). "A Statistical Picture of the Past, Present and Future of Registered Nurses in Canada"

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<sup>21</sup> Flaherty, M. "Why are nurses coming to the States to work?" *NurseWeek Online*, March 15 1999

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<sup>23</sup> Waters, A. "Phenomenal increase in recruitment from overseas" *Nursing Standard On-line News*; Wk 8, Vol. 114, 1999

<sup>24</sup> "Children urged to consider nursing career" *BBC Online Network*, May 12, 1999; "Praise for L5M nursing recruitment" *BBC Online Network*, May 9, 1999; "Frank Dobson welcomes 2,000 nurses back to the NHS", *UK Department of Health News Release* October 6, 1999; Pearce, L "Cheap at the Price" *Nursing Standard* Vol. 14 No. 8, November 10, 1999; Randhawa, Durand "Return ticket", *Nursing Standard* Vol. 14 No. 8, November 10, 1999; "Welcome back from your career break" 1999 NHS Executive website [www.doh.gov.uk/nursing/break/htm](http://www.doh.gov.uk/nursing/break/htm); "Super-nurses arrive" *BBC Online Network*, July 9, 1999; "What nurses will get" *BBC Online Network* February 1, 1999.

<sup>25</sup> Hellinghausen, M. "Why are nurses leaving the States and working overseas?" , *NurseWeek Online*, March 15, 1999

<sup>26</sup> Note: Prior to 1998 the annual reporting date for ROLLCALL was June. In 1998 the annual reporting date changed to December.

<sup>27</sup> The research team offered assistance with data collection and a few health authorities required this. Only one health authority could provide the data without manual intervention. Also, due to the contractual nature of the community residential sector, very limited valid data were achieved and this sector was eliminated from the analysis.

Other limitations to the data included the following:

- Reporting mechanisms: all health authorities have different mechanisms from which they obtain payroll data.
- Human error: interpretation of survey questions, potential reporting errors.
- Data did not account for all health authorities.
- Data did not account for all entities within a health authority.
- Where staff work for more than one health authority, or more than one employer in a health region, they may be double counted.
- Hours worked/hours paid for one regional health board and one provincial agency were based on calculations, not reported data.

<sup>28</sup> \* Figures as of June in 1992-1997 and December in 1998, with "unknowns" prorated and distributed through data

<sup>29</sup> Statistics Canada 1998

<sup>30</sup> includes Hospital, Rehab, Extended Care

<sup>31</sup> includes Community, Home Care and Mental Health

<sup>32</sup> includes Business, Physician's Office, Self-Employed, Private Nursing Agency, Education, Associations, Other and Unknown

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- <sup>33</sup> includes Medical Surgical, Oncology, Neuro Sciences, Ambulatory Care, Psychiatric, Paediatrics, Rehabilitation
- <sup>34</sup> includes Community Health and Home Care,
- <sup>35</sup> includes Education, Administration, Research and Unknown
- <sup>36</sup> Registered Nurses Association of British Columbia (1998) "New Graduate Survey 1998: A Report" ; Vancouver: RNABC. The response rate to was 324/670.
- <sup>37</sup> RNABC. (1998); "New Graduate Survey 1998: A Report" *ibid*
- <sup>38</sup> RNABC (1998); "New Graduate Survey 1998: A Report" *ibid*
- <sup>39</sup> ROLLCALL 1998
- <sup>40</sup> Registered Nurses Association of British Columbia (1999) "Addressing the Nursing Shortage. Submissions to the Ministerial Advisory Committee on Nurse-RPN Recruitment and Retention" July 1999.
- <sup>41</sup> Registered Nurses Association of British Columbia (1999) *ibid*  
Canadian Nurses Association (1998)"Registered Nurse Human Resources: Recruitment and Retention Issues: A Discussion Paper" Ottawa: Canadian Nurses Association
- <sup>42</sup> Canadian Nurses Association (1998) *ibid*
- <sup>43</sup> Statistics Canada
- <sup>44</sup> RNABC Membership Statistics, Dec 31, 1998
- <sup>45</sup> Information provided to Ministry of Health from RNABC January 24, 2000
- <sup>46</sup> Ryten (1997). "A Statistical Picture of the Past, Present and Future of Registered Nurses in Canada"
- <sup>47</sup> Registered Nurses Association of British Columbia (1999) "Addressing the Nursing Shortage. Submissions to the Ministerial Advisory Committee on Nurse-RPN Recruitment and Retention"
- <sup>48</sup> Information and data for the section on Employee Wellness in the report were obtained from the following sources: "Trends in Types of Accident by Occupation, 1992 – 1996" British Columbia, Statistical services Department, Workers Compensation Board of BC, January 1998; "Occupational Injuries by Accident Type and Occupation in British Columbia 1997 and 1998", staistical services Department, Workers Compensation Board of BC, October 1999; Healthcare Benefits Trust Annual Report 1998; "Violence in the emergency department: a survey of health care workers" *CMAJ* 1999, 161(10): 1245-8; Interview, e-mail correspondence and material provided by Mike Arbogast, Vice-President Consulting Services, HEABC and Nan Bennett, CEO, Healthcare Benefits Trust.
- <sup>49</sup> Note: casual employees are not eligible and nurses in the provincial public service are covered by another plan.
- <sup>50</sup> Note: DTF vacancies are defined as occurring April 01, 1999 to September 16, 1999 and vacant three months after posting
- <sup>51</sup> Presentation at Stakeholders in Nursing Meeting, November 29, 1999
- <sup>52</sup> Note: MAETT does not keep statistics based on new entries to nursing programs, rather all FTEs currently in the system.
- <sup>53</sup> Ryten (1997) "A Statistical Picture of the Past, Present and Future of Registered Nurses in Canada"
- <sup>54</sup> 1999/2000 Report 3: Maintaining Human Capital in the British Columbia Public Service: The Role of Training and Development

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- <sup>55</sup> 1999/2000 Report 3: Maintaining Human Capital in the British Columbia Public Service: The Role of Training and Development
- <sup>56</sup> Conversation with Brenda Goldman, Gail Hills & Maxine Mott, Kwantlin Nursing Refresher Program, December 1999
- <sup>57</sup> Seaton Report (1991) Closer to Home: The Report of the British Columbia Royal Commission on Health Care and Costs
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- <sup>63</sup> Ministry of Advanced Education, Training and Technology (1999) Definition of Laddering. <http://www.bccat.bc.ca/tips/terms.html>
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