

Newfoundland and Labrador
Health Human Resource Indicator Report 1999 to 2003
Part 6 - Retirement Estimates



**GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR**
Department of Health and Community Services

The Health Human Resource Indicator Report 1999 to 2003 is comprised of the following separate documents to facilitate ease of distribution, verification, and update:

Executive Summary

Introduction

Part 1 – Who’s Who

Part 2 – Full-Time Equivalents

Part 3 – Overtime, Callback, and Relief

Part 4 – Workforce Wellness

Part 5 – Workforce Movement

Part 6 – Retirement Estimates

Part 7 – Definitions

This document is:

Part 6 – Retirement Estimates

This document provides health board workforce retirement estimates for the next 10 years.

Health Human Resource Indicator Report 1999 to 2003 Part 6 – Retirement Estimates

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The Health and Community Services Human Resource Planning Unit represents a partnership agreement between the Government of Newfoundland and Labrador Department of Health and Community Services, and the Newfoundland and Labrador Health Boards Association. Please direct inquiries related to this report to the Newfoundland and Labrador Health Boards Association.

Summary

Age-based retirement projections were constructed for a 10-year period. Estimates were based on the demographics of the workforce as of March 31 2003. A grouping methodology to classify retirement estimates into low, moderate, and high categories was used, based on the projected percentage of the workforce expected to retire over the ten-year time frame. At the provincial level, occupational groups in the high category, or more than 40 per cent projected to retire in the next ten years, included cardio-pulmonary technologists, cardiology technologists, prosthetist-orthotists, managers, orthopedic technologists, audiology technicians, prosthetist-orthotist technicians, medical radiation technicians, combined lab and x-ray (LX) technicians, physiotherapy assistant, and psychology assistants. Many of these occupational groups are highly specialized and relatively small in number.

Primary occupations in the moderate category (between 15 and 40 per cent projected to retire) include orthopedic technologists, medical laboratory technologists, medical radiation technologists, electroneurophysiology technologists, licensed practical nurses, registered nurses, radiation therapists, clinical psychologists, pharmacists, social workers, and nuclear medicine technologists. Although these groups fall into the moderate category, their numbers are quite large and the impact of retirements can be severe. Several ancillary occupational groups also fall into the moderate category.

A significant per cent of managers have registered nurse and social work backgrounds and when managers with these backgrounds retire, it is possible that they will be replaced with unionized staff with similar backgrounds. It is therefore important to consider management retirements when constructing retirement estimates for all registered nurses and social workers. Although small in number, the same issue exists for other primary occupations. For example, managers with backgrounds in physiotherapy, occupational therapy, psychology, dietetics, pharmacy, speech language pathology, medical laboratory technology, medical radiation technology, and others.

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1. Preamble

This report provides 10-year retirement projections by occupational groups for the health board workforce. Projections were based on employee demographics established by the methodologies described in [Part 1 – Who’s Who](#).

The reader is referred to the [Executive Summary](#) and [Introduction](#) sections for an overview of findings and detailed supporting notes. Definitions are contained in [Part 7 – Definitions](#).

The Government of Newfoundland and Labrador’s (NL) decision to transform 14 health boards into four regional integrated health authorities (RIHAs) was announced on September 10, 2004, and governance structures were established in early 2005. Data and analysis in this document can be regrouped to reflect new RIHA structures. Please direct inquiries to the Human Resource Planning Unit (HRPU). Contact information is shown in the beginning of this document.

2. Limitations

Where figures are small, the assumption of an average age of retirement breaks down, and individual circumstances will determine actual patterns of retirement. Additionally, retirements is only one exit from the system, and may only represent a small proportion of an entire group’s separations, as is the case with several allied health groups. Caution should be used when interpreting the figures. See [Part 5 – Workforce Movement](#) for further information.

Many occupational groups listed are employed by organizations other than health boards, and retirement estimates for the overall provincial workforce should be adjusted accordingly if planning efforts are wider in scope than health board employees.

3. Methodology

The 10-year retirement projections were constructed by calculating how many individuals in each occupational group achieve the assumed retirement age, in each year from 2004 to 2013. For managers, medical laboratory technologists, medical radiation technologists, and pharmacists, the assumed retirement age is 55. For all others it is 58 years old. For example, 47 managers will turn 55 in 2005, and 87 licensed practical nurses will turn 58 in 2005. The assumed retirement age is derived from past calculations using data from the Department of Finance - Pensions Division, an independent analysis of turnover at one health board, and anecdotal evidence. Managers, medical laboratory technologists, medical radiation technologists, and pharmacists tend to have better years of service/age combinations than other occupational groups, and hence have better pension eligibility. This report does not encompass data on pension eligibility. Analysis of pension eligibility would require a more detailed assessment and additional data.

An independent report examined employee turnover at the Health Care Corporation of St. John’s and the Newfoundland Cancer Treatment and Research Foundation using exit survey data collected from 1997 to 2003. The data collected included reasons for all separations, including “resignation”. Among other data, the age at separation was calculated. Results for average age at resignation are shown in Table 1, sorted alphabetically:

Table 1. Average Age of Retirement, Health Care Corporation of St. John’s and Newfoundland and Labrador Cancer Treatment and Research Foundation, 1997 to 2003.

Primary Occupation	Age	Ancillary Occupations - Clinical	Age
Combined LX Technologist ¹	55.0	Medical Laboratory Technician	56.0
Dosimetrist ¹	60.0	Occup. Therapy Support Worker ¹	57.5
Licensed Practical Nurse	54.0	Paramedic ¹	55.0
Manager	54.9	Personal Care Attendant ¹	65.0
Medical Laboratory Technologist ¹	58.0	Physiotherapy Assistant ¹	55.0
Medical Radiation Technologist	55.9	Average (Ancillary Clinical)	57.1
Occupational Therapist ¹	59.0		
Orthopedic Technologist ¹	55.0	Ancillary Occupations – System	Age
Pharmacist ¹	55.0	Administration	57.8
Prosthetist-Orthotist ¹	54.0	Dietary	57.4
Psychologist (Clinical) ¹	61.0	Facilities	57.7
Registered Nurse	55.9	Housekeeping	56.2
Respiratory Therapist ¹	54.0	Laundry	57.8
Social Worker ¹	55.0	Materials	57.6
Average (Primary)	55.2	Records	58.2
		Average (Ancillary System)	57.5
Average (Overall)			56.0

Notes:

1. These groups had less than five retirement-related separations from 1997 to 2003 and caution should be used in interpreting the average age.

Due to the small size of the sample it is difficult to place reliability on the average age of retirement for any of the occupational groups, except perhaps where retirements exceeded five, and more so for licensed practical nurses, managers and registered nurses where numbers generally exceed 50 over the timeframe studied. For those having more than five separations, the figures support the average age assumption of 55 for managers, and medical radiation technologists. For all other groups, the average age assumption of 58 seems excessive for primary occupations, particularly licensed practical nurses, but close for ancillary occupations – system. It is doubtful however that these figures reflect provincial trends, as they are derived from a mostly acute care, urban setting, but they do provide an additional piece of evidence for planning purposes.

4. Retirement Projections

Table 2 and Table 3 show how many individuals have achieved the assumed age of retirement as of calendar year 2004, and projections of how many will achieve the assumed age of retirement in each year to 2013, or beyond 2013.

Table 2. Health Board Retirement Estimates 2004 to 2013 Primary Occupations.

Occupation	Estimated Year of Retirement												Total	
	<2004	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	>2013		
Primary Occupations														
Audiologist												13	13	
Behaviour Management Specialist			1			1		3	2	1		71	79	
Cardiology Technologist	3	1		5	3	2	2	1		5	2	11	35	
Cardio-Pulmonary Technologist						1				1		1	3	
Combined LX Technologist			1	1								12	14	
Dentist	3				1							3	7	
Dietitian/Nutritionist							2	1	2		1	63	69	
Dosimetrist												4	4	
Electroneurophysiology Technol.	1	2			1					1		7	12	
Genetic Counsellor									1			6	7	
Licensed Practical Nurse	154	67	87	103	102	83	82	86	69	86	98	1684	2701	
Manager	99	37	47	45	37	43	34	52	37	35	44	369	879	
Medical Laboratory Technologist	18	9	12	9	8	13	12	18	14	23	26	204	366	
Medical Physicist	2											2	4	
Medical Radiation Technologist	22	8	4	5	7	8	9	9	8	18	11	147	256	
Nuclear Medicine Technologist				1							1	11	13	
Occupational Therapist	1	3		1		2		2	1	1	1	89	101	
Orthopedic Technologist	1			1	1					1	1	5	10	
Pharmacist	3			1	1	2	1	1	3	1	4	65	82	
Physiotherapist	2					3	1	3	1	1	2	96	109	
Prosthetist-Orthotist					1	1			1	2	2	5	12	
Psychologist (Clinical)	3	1			2		2	3	1	2		45	59	
Radiation Therapist							1	1	1			12	15	
Recreation/Develop. Specialist												28	28	
Registered Nurse	224	62	68	74	101	79	116	108	122	164	150	3648	4916	
Respiratory Therapist					1							74	75	
Social Worker	8	3	6	6	12	8	7	21	13	17	12	535	648	
Speech Language Pathologist			1					1				39	41	
Other (Primary) ¹	3		1					1	1	3	1	22	32	
Subtotal	547	193	228	252	278	246	269	311	277	362	356	7271	10,590	

Notes:

1. Other (Primary) includes assistant clinical microbiologist, cardiovascular perfusion technologists, child care services consultants, clinical biochemists, management engineers, kinesiologists, music therapists, and pastoral care clinicians.

Table 3. Health Board Retirement Estimates 2004 to 2013 Ancillary Occupations.

Occupation	Estimated Year of Retirement												Total
	<2004	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	>2013	
Ancillary Occupation - Clinical													
Audiology Technician						1	1						2
Cardiology Technician	1					1						1	3
Combined LX Technician		1	3		3	2	2		1	2	3	7	24
Community Service Worker					1			1	1			11	14
Dental Technicians	1				1		1			3	1	10	17
Medical Laboratory Technician	7	5	5	7	7	7	4	5	6	5	7	100	165
Medical Radiation Technician		2	1		1	1	2	2			1	3	13
Nuclear Medicine Technician					1							5	6
Occup. Therapy Support Worker	1	1		1			1		1	2		21	28
Paramedic	5	1	3	2	2	2	3	4	6	4	6	93	131
Personal Care Attendant	28	8	10	13	8	13	9	18	10	19	12	264	412
Pharmacy Technician	1		2	1	3	1	2	2	3	4	4	75	98
Physiotherapy Assistant	2	4	2	5	2	7	8	4	2	5	3	35	79
Prosthetist-Orthotist Technician					1	1				2		1	5
Psychology Assistant			1							2		3	6
Recreation Therapy Worker	3	2	2	5	1	2	2	3	4	3	4	70	101
Social Service Worker	2		1	1	1	3	1	2		2	2	50	65
Other (Ancillary Clinical) ¹	3	2	1	1	4	1	1	1		1	1	44	60
Subtotal	54	26	31	36	36	42	37	42	34	54	44	793	1229
Ancillary Occupations - System													
Administration ³	108	36	52	51	70	72	68	70	80	90	77	1510	2284
Biomedical Engineering							1			1		18	20
Dietary	68	19	22	25	27	27	34	30	47	38	36	680	1053
Facilities	54	14	14	18	19	17	14	20	12	19	23	213	437
Housekeeping	103	30	38	41	33	50	54	50	52	49	51	777	1328
Information systems						3	1		1	2	2	79	88
Laundry	39	4	9	13	20	10	14	17	17	13	12	109	277
Materials	20	7	7	15	16	22	20	15	16	14	14	221	387
Records	11		5	1	3	3	6	5	6	6	6	50	102
Other (Ancillary System) ²	3				1			1				14	19
Subtotal	406	110	147	164	189	204	212	208	231	232	221	3671	5995
Grand Total (Including Primary Occupations, Table 2)	1007	329	406	452	503	492	518	561	542	648	621	11,735	17,814

Notes:

1. Other (Ancillary Clinical) includes beauticians, cardiovascular perfusion technicians, researchers, EKG technicians, family support workers, financial assistance officers, homemakers, ophthalmologist assistants, and health educators.
2. Other (Ancillary System) includes aircraft dispatchers, aircraft maintenance engineers, pilots and students.
3. Administration includes all clerks (admitting, ward, payroll, and others), secretaries, and other administrative staff excluding managers.

Note that there are 1007 employees in the occupational groupings that are currently beyond the assumed retirement age. Within the next ten years one might expect that there will always be a cohort in this category, although it may shrink or grow in size. The assumption is made therefore that this

group represents a permanent “wave” of employees that will turnover but likely remain constant in quantity, and the figures are not included in retirement estimates that follow in Table 4.

In the report Bringing the Future into Focus: Projecting RN Retirements in Canada (O’Brien-Pallas, Alksnis, and Wang, 2003) an average annual loss rate calculated from 1997 to 2001 data was used to estimate how many registered nurses would be expected to leave the system, for each year of age from 50 to 65, assuming these losses would be entirely due to retirement or death. Using the average loss rates for Atlantic Canada (shown in Appendix A, Table 11 of the O’Brien-Pallas, Alksnis, and Wang report), and applying them to health board workforce figures for registered nurses for March 31, 2003, for each year of age, yields 64 expected to retire in 2004. This is similar to results calculated in Table 2 of 62 expected to retire in 2004. Figures are small and caution should be used in drawing conclusions about the comparability of the two estimates.

To compare across occupational groups by occupational category, the expected number of retirements from 2004 to 2013 was divided by the total number in the workforce and expressed as percentage, sorted from highest to lowest. Results are provided in Table 4:

Table 4. Per Cent of the Workforce Estimated to Retire 2004 to 2013.

Primary Occupation	Per Cent	Ancillary Occupations - Clinical	Per Cent
Cardio-Pulmonary Technologist	66.7%	Audiology Technician	100.0%
Cardiology Technologist	60.0%	Prosthetist-Orthotist Technician	80.0%
Prosthetist-Orthotist	58.3%	Medical Radiation Technician	76.9%
Manager	46.8%	Combined LX Technician	70.8%
Orthopedic Technologist	40.0%	Physiotherapy Assistant	53.2%
Medical Laboratory Technologist	39.3%	Psychology Assistant	50.0%
Medical Radiation Technologist	34.0%	Dental Technicians	35.3%
Electroneurophysiology Technol.	33.3%	Medical Laboratory Technician	35.2%
Licensed Practical Nurse	32.0%	Cardiology Technician	33.3%
Registered Nurse	21.2%	Personal Care Attendant	29.1%
Radiation Therapist	20.0%	Recreation Therapy Worker	27.7%
Psychologist (Clinical)	18.6%	Paramedic	25.2%
Pharmacist	17.1%	Pharmacy Technician	22.4%
Social Worker	16.2%	Community Service Worker	21.4%
Nuclear Medicine Technologist	15.4%	Occup. Therapy Support Worker	21.4%
Combined LX Technologist	14.3%	Social Service Worker	20.0%
Dentist	14.3%	Nuclear Medicine Technician	16.7%
Genetic Counsellor	14.3%	Other (Ancillary Clinical)	21.7%
Occupational Therapist	10.9%	Subtotal (Ancillary Clinical)	31.1%
Behaviour Management Specialist	10.1%		
Physiotherapist	10.1%	Ancillary Occupations – System	Per Cent
Dietitian/Nutritionist	8.7%	Laundry	46.6%
Speech Language Pathologist	4.9%	Records	40.2%
Respiratory Therapist	1.3%	Facilities ¹	38.9%
Audiologist	0.0%	Materials	37.7%
Dosimetrist	0.0%	Housekeeping	33.7%
Medical Physicist	0.0%	Administration	29.2%
Recreation/Develop. Specialist	0.0%	Dietary	29.0%
Other (Primary)	21.9%	Information systems	10.2%
Subtotal (Primary)	26.2%	Biomedical Engineering	10.0%
		Other (Ancillary System)	10.5%
		Subtotal (Ancillary System)	32.0%
Total			28.5%

Notes

1. The Health Care Corporation of St. John’s notes that as much as 62 per cent of their facilities staff are expected to retire by 2010, presenting a significant staffing challenge in this health board.

A grouping methodology to classify retirement estimates into low, moderate, and high categories are described in the Introduction section. For retirement estimates, the suggested ranges are:

Low: <15.0%	Moderate: 15.0% to 40.0%	High: >40.0%
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Provincially, occupational groups in the high category included cardio-pulmonary technologists, cardiology technologists, prosthetist-orthotists, managers, orthopedic technologists, audiology technicians, prosthetist-orthotists technicians, medical radiation technicians, combined LX technicians, physiotherapy assistant, psychology assistants, and laundry and records staff. These groups are mostly small in number and highly specialized in their roles.

Note that a significant per cent of managers have registered nurse and social work backgrounds (34 and nine per cent respectively). When managers with these backgrounds retire, it is possible that they will be replaced with unionized staff with similar background. It is therefore important to consider management retirements when constructing retirement estimates for all registered nurses and social workers. Although small in number, the same issue exists for other primary occupations. For example, managers with backgrounds in physiotherapy, occupational therapy, psychology, dietetics, pharmacy, speech language pathology, medical laboratory technology, medical radiation technology, and others comprise an estimated 11 per cent of the management group, and require consideration.

Considering registered nurses and social workers in management positions, revised estimates are shown in Table 5 below:

Table 5. Corrected Retirement Estimates for Registered Nurses and Social Workers 2004 to 2013.

Occupational Description	<2004	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	>2013	Grand Total
A) Unionized Registered Nurses in Health Boards	224	62	68	74	101	79	116	108	122	164	150	3648	4916
B) All Management	99	37	47	45	37	43	34	52	37	35	44	369	879
C) Partial Management (34 per cent of B)	34	13	16	15	13	15	12	18	13	12	15	125	299
D) All Registered Nurses in Health Boards (A + C)	258	75	84	89	114	94	128	126	135	176	165	3773	5215
E) Unionized Social Workers in Health Boards	8	3	6	6	12	8	7	21	13	17	12	535	648
F) All Management	99	37	47	45	37	43	34	52	37	35	44	369	879
G) Partial Management (nine per cent of F)	9	3	4	4	3	4	3	5	3	3	4	33	79
H) All Social Workers in Health Boards (E + G)	17	6	10	10	15	12	10	26	16	20	16	568	727

As indicated earlier, many occupational groups listed are employed by organizations other than health boards, and retirement estimates should be adjusted accordingly if planning efforts are wider in scope than health board employees. For example, health boards employ less than 15 per cent of all pharmacists in the province.

Depending on the scope of the analysis (and the methodology), different figures will result when projecting the number of retirements for any particular occupational group. For example each of the following is a different scope: unionized registered nurses in health boards, all registered nurses in health boards including unionized and those in management, and all registered nurses in the province. All else being equal, retirement projections can indicate general trends in the expected number of separations and hence some measure of supply requirements.

This concludes this Part of the Human Resource Indicator Report 1999 to 2003. For more information on workforce counts and movement, please read Part 1 – Who’s Who and Part 5 – Workforce Movement.