

**Perceptions of Graduate Preparedness in the
Health Sector
Newfoundland and Labrador**

May 2002

**Prepared by:
Tanya Noseworthy & Leslie Harnett
Health and Community Services Human Resources Sector Study**

For more information on this Report or any other project of the Health and Community Services Human Resource Planning Steering Committee please contact:

1. Newfoundland and Labrador Health Boards Association
364-7701 ext. 321, or
2. Department of Health and Community Services
729-5799.

Information can also be obtained on the Committee's website at www.nlhba.nf.ca/hr.

Executive Summary

The following report profiles the perceptions of new graduates, employers, and educators related to the preparedness of graduates from health professional education programs in Newfoundland and Labrador, and select programs at Dalhousie University, for employment in current and future job markets. The report also discusses how employers' accommodate recent graduates once they arrive in the workplace setting.

In the summer of 2001, a total of 1178 surveys were distributed to new graduates (800), employers (354), employer human resource representatives (14), and educational facilities (10). In an attempt to improve the student response rate, a second "reminder" mail-out was conducted in September 2001 for Licensed Practical Nurse (LPN), Registered Nurse (RN) and Social Work (SW) new graduate groups.

For a number of reasons which are discussed in the report, the response rates from several professional groups were quite low. It is therefore difficult to draw sound conclusions for groups including Diagnostic Medical Sonographers (US), Medical Laboratory Technologists (MLT), Occupational Therapists (OT), Pharmacists (PH), Physiotherapists (PT), Respiratory Therapists (RT) and Medical Radiation Technologists (MRT). However, with the exception of US and MRT, results are discussed comparing the student, employer and educational facility responses. Discipline specific results are provided in the appendices that follow the report.

The results can be summarized as follows:

Satisfaction With Educational Program

- ❖ Overall, new graduates were satisfied with their educational programs, and if they had their time back the majority would choose the same program at the same institution.
- ❖ A large majority of new graduate respondents did indicate that they plan to pursue continuing education.
- ❖ The majority of employers were satisfied with the knowledge base of new graduates and educational facility representatives were also satisfied with the graduates' levels of preparation and readiness for the workplace.

Recruitment Issues

- ❖ Registered Nurses were mentioned most frequently as being hard to recruit.
- ❖ 92% of Human Resource department respondents felt that there were not an adequate number of health professionals being trained in the province to meet current and future needs. Educational Program respondents also indicated a need to increase the numbers being trained for RN, OT and PT groups in particular.

Transition To The Workplace

- ❖ Employer and Educational program respondents agreed that both mentoring programs and an increase in the amount of clinical experience would ease the

transition of new graduates from school to the workplace. The implications of these changes are discussed in more detail in the report.

- ❖ In the majority of groups the preferred employment status was full-time in an area related to their educational preparation. LPNs reported the lowest rate of employment in full-time positions.

Perceptions of Preparedness

- ❖ With the exception of OTs, new graduates felt more prepared to meet employers' expectations than employers felt that the new graduates were prepared for the workplace. OT new graduates felt the least prepared to meet employers' expectations and were the only group where the employers' felt more positive about the graduates preparedness than the graduate did.
- ❖ Less than half of RN and SW employer respondents felt that new graduates were prepared for the current workplace.

Orientation Issues

- ❖ With the exception of the SW and RT groups, the majority of employers and new graduates agreed on whether or not an orientation program was received and/or provided.
- ❖ Only 36% of OT respondents felt that the orientation they received was adequate, while 70% of OT employers felt it was adequate. Differences were also observed in the RN, MLT and PH groups, though not to the extent of the OT group.
- ❖ For new graduates who felt that their orientations were not adequate, the majority reported that it was not long enough, the content was minimal and that an orientation to a specific position was necessary.

Preparedness For Future Workplace

- ❖ The top five changes in the workplace that would require a specific change in the type or combination of education received by health professionals were identified by respondents as: changing scope of practice, the interdisciplinary team approach to care, the move to community health, the need for specialization, and the use of/changing technology.

Table of Contents

Introduction.....	1
1 Purpose.....	1
2 Methodology.....	2
3 Results.....	5
3.1 Response Rates.....	5
3.2 Demographics.....	7
3.3 Educational Programs	8
3.4 New Graduate Satisfaction with the Educational Program.....	10
3.5 Recruitment of Professional Groups	14
3.6 Transition to the Workplace.....	16
3.7 Perceptions of Graduate Preparedness	18
3.8 Orientation.....	20
3.9 Preparedness for the Future Workplace	23
4 Discussion.....	25
5 Reference List.....	27

Appendices

Appendix A: Diagnostic Medical Sonography.....	28
New Graduate Survey.....	29
Employer Survey	29
Educational Survey.....	30
Appendix B: Medical Laboratory Technology.....	31
New Graduate Survey.....	32
Employer Survey	35
Educational Survey.....	36
Appendix C: Licensed Practical Nurse.....	38
New Graduate Survey.....	39
Employer Survey	44
Educational Survey.....	45
Appendix D: Occupational Therapy	47
New Graduate Survey.....	48
Employer Survey	51
Educational Survey.....	52
Appendix E: Pharmacy	54
New Graduate Survey.....	55
Employer Survey	56
Educational Survey.....	57

Appendix F: Physiotherapy	59
New Graduate Survey.....	60
Employer Survey	62
Educational Survey.....	63
Appendix G: Registered Nurse	64
New Graduate Survey.....	65
Employer Survey	70
Educational Survey.....	71
Appendix H: Respiratory Therapy.....	73
New Graduate Survey.....	74
Employer Survey	76
Educational Survey.....	76
Appendix I: Social Work	78
New Graduate Survey.....	79
Employer Survey	82
Educational Survey.....	84
Appendix J: Medical Radiography Technology	85
New Graduate Survey.....	86
Employer Survey	86
Educational Survey.....	86
Appendix K: Glossary.....	88

List of Tables

Table 1: Preparation Of Mailing Lists.....	3
Table 2: Response Rate	6
Table 3: New Graduate Survey Demographics	7
Table 4: Educational Program Information	8
Table 5: New Graduates' Overall Levels Of Satisfaction With The Educational Programs.....	10
Table 6: Choice Of Program.....	11
Table 7: Educational Program And Graduates' Strengths	13
Table 8: Explanation For Recruitment Difficulty From HR Perspective	14
Table 9: Graduates Required For Current And Future Need, Educational Program Perspective.	15
Table 10: Perceptions Of Communication Between Educational Facilities And Employers'	16
Table 11: New Graduates' Orientation	21
Table 12: Employers' Orientation Programs	21
Table 13: Graduates' Preparedness For The Future.....	24

List of Figures

Figure 1: New Graduates' Plans To Pursue Further Education.....	11
Figure 2: Difficulty In Recruitment By Professional Group	14
Figure 3: Employment Status By Professional Group	17
Figure 4: Satisfaction With Employment Status.....	18
Figure 5: Comparison Of New Graduate And Employers' Perceptions' Of Preparedness For The Workplace.....	19
Figure 6: Perceptions Of Adequateness Of Orientation Programs.....	22

List of Tables - Appendix

[Medical Laboratory Technologist](#)

Table 1: Medical Laboratory Technologists Satisfaction With The Educational Program.....	32
--	----

[Licensed Practical Nurse](#)

Table 1: Licensed Practical Nurses' Satisfaction With The Educational Program	40
---	----

Table 2: Employment Status Of Licensed Practical Nurses.....	42
--	----

[Occupational Therapist](#)

Table 1: Occupational Therapists' Satisfaction With The Educational Program.....	49
--	----

[Pharmacist](#)

Table 1: Pharmacists Satisfaction With The Educational Program.....	55
---	----

[Physiotherapist](#)

Table 1: Physiotherapists' Satisfaction With The Educational Program.....	60
---	----

[Registered Nurse](#)

Table 1: Registered Nurses' Satisfaction With The Educational Program.....	66
--	----

[Respiratory Therapist](#)

Table 1: Respiratory Therapists' Satisfaction With The Educational Program.....	74
---	----

[Social Worker](#)

Table 1: Social Workers Satisfaction With The Educational Program	79
---	----

List of Figures - Appendix

[Medical Laboratory Technologist](#)

Figure 1: Practice Setting Of Medical Laboratory Technologists.....	33
---	----

Figure 2: Employment Status Of Medical Laboratory Technologists.....	33
--	----

Figure 3: Length Of Orientation For Medical Laboratory Technologists	34
--	----

Figure 4: Medical Laboratory Technologists' Plans To Pursue Further Education	34
---	----

[Licensed Practical Nurse](#)

Figure 1: Licensed Practical Nurses' School Of Graduation	39
---	----

Figure 2: Licensed Practical Nurses' Preparedness And Time Taken To Meet Employers' Expectations	41
--	----

Figure 3: Practice Setting Of Licensed Practical Nursing New Graduates	41
--	----

Figure 4: Licensed Practical Nurses' Plans To Pursue Further Education.....	42
---	----

Figure 5: Length Of Orientation For Licensed Practical Nurses.....	43
--	----

Figure 6: Licensed Practical Nurse Employment Sector Response Rates.....	44
--	----

Occupational Therapist

Figure 1: Practice Setting Of Occupational Therapists 48
Figure 2: Occupational Therapists’ Preparedness And Time Taken To Meet Employers’
Expectations 50
Figure 3: Length Of Orientation For Occupational Therapists 50
Figure 4: Practice Setting Of Occupational Therapy Employers’ 51
Figure 5: Length Of Orientation For Occupational Therapists 51
Figure 6: Adequateness Of Occupational Therapy Orientation Programs: Employers’
Perceptions 52

Physiotherapist

Figure 1: Practice Setting Of Physiotherapists 61
Figure 2: Length Of Orientation For Physiotherapists 62

Registered Nurse

Figure 1: School Attended By Registered Nurse Respondents 65
Figure 2: Practice Setting Of Registered Nurse Respondents 66
Figure 3: Registered Nurses’ Preparedness And Time Taken To Meet Employers’ Expectations
..... 67
Figure 4: Length Of Orientation For Registered Nurses 68
Figure 5: Practice Setting Of Registered Nurse Employers’ 70
Figure 6: Length Of Orientation For Registered Nurses 70

Respiratory Therapist

Figure 1: Practice Setting Of Respiratory Therapists 75
Figure 2: Respiratory Therapists Employment Status 75
Figure 3: Length Of Orientation For Respiratory Therapists 75

Social Worker

Figure 1: Practice Setting Of Social Workers 80
Figure 2: Social Workers Employment Status 80
Figure 3: Social Workers Preparedness And Time Taken To Meet Employers’ Expectations.... 80
Figure 4: Length Of Orientation For Social Workers..... 82
Figure 5: Practice Setting Of Social Work Employers’ 83

Introduction

Ongoing evaluation of the transition from student to staff roles is necessary to ensure a smooth and positive experience for the new graduate, employer and the education system. The transition from student nurse to staff nurse is often characterized by a perceived lack of confidence on the part of the recent graduate (Maben, 1996). This is not only true for nursing, but can be said for any recent graduate entering the professional workplace. Prolonged and excessive stress or perceived lack of confidence can contribute to job satisfaction and turnover (Oermann & Moffitt-Wolf, 1997). It is therefore important that educational programs, new graduates, and employers evaluate their respective responsibilities in preparing, being prepared for, and accommodating new graduates.

One indicator of how well an educational program is preparing its' graduates for the workforce is employers' satisfaction with recent graduates. "Employer evaluation of the graduate is an important component of program evaluation and contributes a different view that is rarely reported in the literature" (Ryan & Hodson, 1992, p. 198). Employers can identify areas where there may be gaps in programs, and point the direction for the future health professional education.

A new graduate can also be a source of knowledge and direction when it comes to the educational programs and transition to the workplace. Recent graduates can offer advice on the components of an orientation program that will address new graduate needs and how they can be most effectively integrated into the workforce. They can also be a source of information for educational programs, being able to critically evaluate which components of their educational program were applicable when moving into the workplace, and where a program may have excelled or lacked in content.

The educational program can help in this transition by ensuring all components of the program are designed to meet the present and future needs of the system, therefore providing graduates with the tools to address these needs. Educational programs can also be a resource to employers for development of orientation programs and providing advice on emerging research. Employers can benefit from partnering with educational institutions by having graduates enter the workplace with realistic expectations, and therefore less stress, higher levels of job satisfaction, and lower turnover.

1 Purpose

The purpose of this study is twofold. Firstly, it is meant to evaluate the preparedness of graduates from health professional programs in this province and select programs at Dalhousie University in Nova Scotia, for employment in current and future job markets. Secondly, it is meant to examine how employers' accommodate recent graduates. Through surveying recent graduates, their employers and representatives of the educational programs, one will be able to:

1. Identify the skills and body of knowledge required for selected occupations identified with current models of health and community services delivery, and

- how these skills compare with current educational programs and emerging trends in delivery.
2. Consider employer satisfaction with graduates of related educational programs, including an analysis of the fit between required skills and educational curriculum.
 3. Examine current educational programs with relation to potential gaps in the content of education.
 4. Explore what measures employers have in place to support new graduates in their transition to the workplace.

Through compilation and evaluation of data collected through the survey process, the preparedness of Newfoundland & Labrador new graduates for the health sector workplace of today, the accommodation of new graduates by employers, and potential needs for the future will be discussed and evaluated.

2 Methodology

To ensure that information was gathered from all relevant sources, four survey tools were developed. Each survey was designed so that it would obtain appropriate information from the recent graduates' perspective, the employers' perspective (from both the manager and a human resource perspective), and the educational facilities' perspective. These surveys were developed based on the literature, and were critiqued for content and relevance through input from the Department of Health and Community Services, the Department of Youth Services and Post Secondary Education, provincial health board representatives, various unions, professional associations, and educational facilities. The surveys were also circulated to the Provincial Health & Community Services Human Resource Planning Steering Committee, the RN/LPN and the Allied Health Human Resource Planning Subcommittees for feedback prior to distribution.

Graduates eligible for inclusion in the survey included those who graduated from the following programs in the years stated and who are/were employed in a provincial health board at least one year subsequent to graduation. The professional groups surveyed and the respective inclusion criteria are as follows:

- Registered Nurses (RN) who graduated in 2000 from the Bachelor of Nursing (BN) (Collaborative) program in Newfoundland & Labrador, who availed of the 2000 BN Graduate Bursary and were employed in the province for a minimum of one year following graduation.
- Licensed Practical Nurses (LPN), who graduated from the Centre for Nursing Studies brokered practical nursing (PN) program in 1999 and 2000, and who were employed in the province for a minimum of one year following graduation.
- Medical Laboratory Technologists (MLT), Medical Radiography Technologists (MRT), Diagnostic Sonographers (US), and Respiratory Therapists (RT) who graduated from College of the North Atlantic between 1996 and 2000, and who were employed in the province a minimum of one year following graduation.

- Social work (SW) and pharmacy (PH) students who graduated from Memorial University (MUN) between 1996 and 2000 and were employed in the province for a minimum of one year following graduation.
- Occupational Therapy (OT) and Physiotherapy (PT) students who went through the Newfoundland and Labrador seat-purchase program at Dalhousie University in Nova Scotia, and who graduated between 1996 and 2000, and were employed in the province for a minimum of one year following graduation.

The project did not include a survey of speech-language pathologists, dieticians, audiologists, or clinical psychologists due to the fact that there are no provincial educational or seat-purchase programs for these professions. Graduates from each of these professional groups come from a variety of educational facilities, all of which could not be identified, and due to the potential small sample size for each educational institution, were not included in this study. Recent medical graduates from MUN were not included in this survey due to the fact that graduates have varying educational experiences depending upon programs of specialization. Many MUN medical graduates travel outside the province for the residency portion of the education, and some medical residents completed their M.D. at universities other than MUN, so identifying an appropriate group to survey was difficult.

Lists of individuals along with their mailing addresses, eligible for the survey were compiled using information provided from professional associations, educational facilities, the Newfoundland and Labrador Health Boards Association (NLHBA), and provincial health boards. Table 1 indicates how the list of eligible individuals to be surveyed was prepared.

Table 1: Preparation Of Mailing Lists

Professional Group	
RN	A complete list of 2000 BN graduates could not be obtained from the Association of Registered Nurses of Newfoundland & Labrador (ARNNL) due to release of information policies. A list of 2000 BN graduates who accepted the bursary in 2000 was used as provided by the NLHBA. This list was felt to accurately reflect 2000 BN graduates currently employed in the province.
LPN	The Council for Licensed Practical Nurses (CLPN), for reasons of confidentiality, was unable to forward a list of names and addresses for 1999 and 2000 PN program graduates. The Council did however circulate the survey to eligible members on behalf of the Sector Study.
US; MLT; RT; MRT	CONA provided lists of graduates from 1996 – 2000. It was recognized that the addresses CONA provided might be outdated, so the list was forwarded to the Newfoundland and Labrador Society of Laboratory Technologists, Newfoundland Association of Medical Radiation Technologists, and the Newfoundland and Labrador Association of Respiratory Therapists for cross-reference to see if individuals' are/were employed in the province for a minimum of one year following graduation. If the individual was not registered in this province, surveys were forwarded based on information from CONA, with the knowledge that these addresses may be outdated.
SW	A list of graduates' names was obtained from the School of Social work at MUN. The Newfoundland and Labrador Association of Social Workers (NLASW) cross referenced this list, and sent surveys out on behalf of the Sector Study to those graduates who worked in the province for a minimum of one year following

	graduation.
PH	The Newfoundland Pharmaceutical Association (NPhA) provided the names and addresses of 1996 – 2000 MUN pharmacy graduates who were employed in the provincial health system, and had been so for a minimum of one year following graduation.
PT	A record of the names of those students who went through the seat-purchase program at Dalhousie and graduates from 1996 - 2000 was available at the NLHBA. The College of Physiotherapists of Newfoundland and Labrador provided employer addresses for all eligible PTs.
OT	A record of the names of those students who went through the seat-purchase program at Dalhousie and graduated from 1996 - 2000 was available at the NLHBA. The Newfoundland and Labrador Association of Occupational Therapists (NLAOT) provided employer addresses for all eligible OTs.
Employer - Professional Group	List of managers in areas that would employ recent graduates from the relevant professional groups were obtained from each of the provincial health boards.
Employer – Human Resources	The Director of Human Resources in each provincial health board was forwarded the survey with a request that the individual in the department who is involved in the recruitment of new graduates complete the survey.
Educational Facility	The Director of each educational program included in this study was surveyed. For the PN program, coordinators for the brokered sites of the program were also surveyed.

In the initial survey mail-out in July 2001, 1178 surveys were sent (800 New graduate Surveys, 354 Employer – Professional Group Surveys, 14 Employer – Human Resource Surveys, and 10 Educational Facility Surveys). The package mailed in July consisted of a covering letter containing instructions for the survey, the survey, and an addressed, postage paid envelope in which to return the survey. Copies of the surveys can be found at www.nlhba.nf.ca/hr. Surveys were color-coded so that the responding group (e.g. management, LPN, SW, etc.) could be identified. This was done for follow-up purposes only. All survey results were kept confidential. Respondents were given the option of providing their name, but all results are reported as aggregate, and are non-identifiable.

Due to low group response rates, a second mail-out was completed in early September 2001 for the LPN, SW and RN New graduate Surveys. Survey packages included the same materials as in the initial mail-out. In the second mail-out, respective professional associations attached a cover letter endorsing the project. E-mail was sent to a Human Resource representative in each provincial health board in August 2001 asking them to forward a reminder onto managers in the board who would have received the survey.

The response rate of Employer Survey in the health boards was initially quite low. It was recognized that many of the managers who did receive the survey may not have employed any recent graduates, and as such may not have completed and returned the survey. Managers who fell into this category were requested to return the survey indicating the same, but few were returned in this fashion. Follow-up calls were made to managers who received the survey, to see if there were reasons that the survey was not completed and returned. The response rate would be increased if the correct number of eligible managers were determined.

As completed surveys were returned, responses were entered into a database. December 7, 2001 was the cut-off date for accepting surveys.

This report is limited by a number of factors, including:

- New graduate survey results for Diagnostic Medical Sonography (US) and Medical Radiography Technology (MRT) were not included in the report due to low response rates.
- For two groups, the response rates were low yet sufficient to report. The reader is cautioned when interpreting results for both the Pharmacy (n = 5) and Physiotherapy (n = 7) groups. While the response rate was slightly higher, drawing conclusions from the results of the Medical Laboratory Technology (MLT) (n = 10), Occupational Therapy (OT) (n = 11), and Respiratory Therapy (RT) (n = 13) new graduate surveys is difficult due to the low number of respondents in the professional groups.
- Caution is required when drawing conclusions for professional group specific employer responses due to the fact that for some professional groups, very few employers actually supervise individuals employed in the discipline.
- No response was received from the School of Social Work at Memorial University of Newfoundland (MUN).

Along with these limitations, there was very little literature available to provide guidance when developing the survey tools, and when looking for comparable studies. A number of the educational programs carry out their own surveys of new graduates and employers, but these surveys were not used in the development and analysis of this survey.

A further confounding factor is that the number of graduates surveyed varied by group in order to identify a sufficient cohort. Some new graduates would have been practicing for up to 4 years, while others would have been in their first year of practice.

3 Results

Results are presented using specific themes that the survey was aimed at addressing. For professional group specific results, please see the appropriate appendix. Abbreviations of professional groups are used in the remainder of the report. A glossary of terms and abbreviations can be found in Appendix K.

3.1 Response Rates

Table 2 describes the response rate of the new graduate surveys by professional group, the employer, human resource and educational facility surveys. The '#SENT' column represents the total number of surveys circulated to the respective group. The '# ELIGIBLE' column represents the total number of surveys sent minus those surveys which were either returned due to a wrong address or disqualified for some reason. A reason for survey disqualification would be for example, an employer survey that was not returned, but upon follow-up it was discovered that the employer did not supervise any recent graduates as per the definition. The '# ENTERED' column represents those that were returned and entered into a database for analysis. The response rate is the number eligible divided by the number entered.

Table 2: Response Rate

SURVEY GROUP	# SENT	#ELIGIBLE	# ENTERED	Response Rate
US	6	6	3	50.00
MLT	83	77	10	12.99
LPN	244	244	107	43.85
OT	34	33	11	33.33
PH	16	16	5	31.25
PT	29	28	7	25.00
RN	142	126	53	42.06
RT	51	47	13	27.66
SW	155	155	55	35.48
MRT	29	29	2	6.90
Employer	354	244	82	33.61
Human Resource	14	14	13	92.86
Education	15	15	14	93.33
Totals	1158	1034	375	36.27

As can be seen from the table, the number of US and MRT respondents is very low. The low response rate may be due to the fact that addresses used to send the surveys out to US and MRT graduates were those provided from when they were students at the College of the North Atlantic. These addresses may have been outdated at the time the survey was distributed. These were the only addresses available at the time of the survey. Due to such a low response rate, the summary of new graduate responses would not be a representative sample of responses of the groups as a whole, and will therefore not be reported here. It should also be noted that, as alluded to in the introduction, a completed survey was not received from the School of Social Work at MUN, so educational facility responses do not include this perspective.

3.2 Demographics

Table 3 describes the demographic profile of new graduate survey respondents. As can be seen from the table the average age of respondents ranged from 24 – 31 years. RN respondents were the youngest group, while LPNs were the oldest.

Table 3: New Graduate Survey Demographics

Professional Group	Average Age Of Respondents (Years)	Gender		
		Male	Female	Unknown
MLT	28		100% (10)	
LPN	31	4% (4)	95% (102)	1% (1)
OT	26		100% (11)	
PH	29	40% (2)	60% (3)	
PT	27	14% (1)	86% (6)	
RN	24	2% (1)	98% (52)	
RT	27	15% (2)	85% (11)	
SW	30	15% (8)	84% (46)	2% (1)

3.3 Educational Programs

Table 4 outlines information gathered concerning the amount of clinical time, the number of instructors, and other information from each educational program surveyed. This data was obtained from the survey of educational programs and through telephone contact with individuals from the programs.

Table 4: Educational Program Information

Professional Groups	Clinical Time In Program (Weeks)	Number Of Instructors			Number Of Applicants (2001)	Capacity (2001)	Number Of Graduates		
		Full-time	Part-time	Sessional			1999	2000	2001
US	26-36	1			4 (2000)	4	3	5	4
MLT	12-16	5			> 300 ¹ (2000)	27	23	20	13
MRT	>36	5				12	11	13	13
LPN	16-25	8	12	1	964	Variable ²	104	104	105
OT	26-36	8	2	10	81 (2000)	48 (8 NF seats)	8	8	8
PH	26-36	9.5	1	2	~ 118 (2000)	36 – 40	37	40	41
PT	26-36	10	1	2	225	48 (10 NF seats)	10	10	10
RN	>36	74	16	12	494	220	40	163	162
RT	>36	5			See MLT	10	10	10	9
SW	Not available	Not available			101 (1 st Degree) 19 (2 nd Degree)	35 (1 st Degree) 10 (2 nd Degree)	60	43	40

With the exception of two LPN and one RN educational program respondent, all other respondents reported that there is a foreseen future shortage of program instructors in the near future. Reasons given for the future shortage include the lack of funds available to develop young faculty, a retiring workforce, higher student enrollment and a lack of permanent faculty positions. Strategies identified to address these shortages include

¹ This represents the number of applicants to the Medical Sciences (first year) which is a common first year for the MLT, RT, and MRT programs. The number of applicants for each of the programs following the common medical sciences year is unknown.

² The reason for fluctuations in enrollment for the PN program is due to the fact that the number of seats in the program each year varies based on assessed need.

funding and encouragement faculty and clinical staff to pursue post-graduate education, and adjusting faculty salaries.

As can be seen in Table 4, all of the professional groups have varying amounts of clinical experiences for students throughout the program. For many of these groups, clinical experiences are dependent upon the availability of preceptors³ and other staff supports. Educational programs were asked whether there were any issues or concerns with the availability of preceptors. Aside from those responding from the LPN, and MRT programs, all respondents reported that there were issues/concerns around the availability of preceptors. The top responses to what steps could be taken to increase the number of professionals willing to act as preceptors were: (1) compensation for taking on the role, (2) support for the preceptor in the workplace (by colleagues, managers, etc.), and (3) a reduction in workload during preceptorship.

Employers were also asked whether professionals in their division/unit acted as preceptors. Responses showed that professionals in 94.3% of the respondents' divisions/units act as preceptors for their respective health professional groups. The top three steps that employers feel would increase the number of experienced staff willing to act as preceptors are compensation, education credits/opportunities, and recognition and rewards for carrying out the role. Other incentives mentioned include appropriate preceptor orientation programs, decreased workload for the preceptor and management/clinical support.

³ A Preceptor can be defined as an expert or specialist who gives practical experience and training to a student during the clinical component of the student's educational program and participates in that student's evaluation.

3.4 New Graduate Satisfaction with the Educational Program

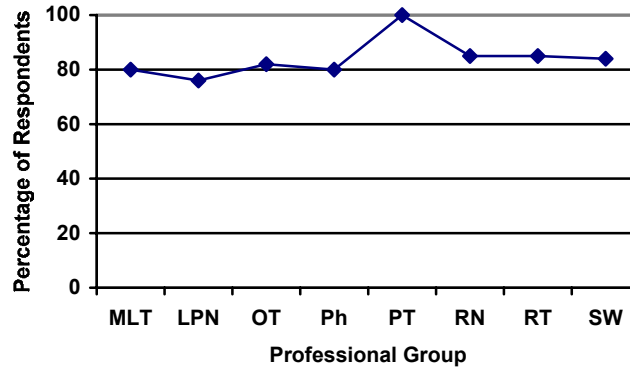
In the new graduate survey, respondents were asked to indicate their level of satisfaction with elements of their educational programs on a scale of ‘1’ to ‘5’, with ‘1’ being very dissatisfied and ‘5’ being very satisfied.

Table 5: New Graduates’ Overall Levels Of Satisfaction With The Educational Programs

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.4
Educational facilities (i.e. libraries, labs, computer facilities)	3.5
Student facilities (i.e. cafeterias, etc.)	3.1
Level of technology available in program	3.7
Class size	4.4
Access to program faculty members	4.2
Availability/access to required courses	4.4
Overall quality of teaching	3.9
Content of material covered in program	3.8
Skills and knowledge acquired	4.0
Balance between theory and practice	3.8
Adequate practical/clinical experience	3.6
Overall cost of the program	2.7
Availability of financial assistance	3.1
Overall experience at the educational facility	4.0
Overall mean	3.7

Table 5 reveals new graduate respondents’ overall levels of satisfaction with the educational programs. Results for respective professional groups can be found under the New Graduate Survey section of the professional group in the appropriate appendix. As is the case in the majority of professional groups surveyed, overall, new graduates were most dissatisfied with the overall cost of the program. New graduates appeared to be most satisfied with their class size and the availability/access to required courses. The overall mean indicates that new graduates were satisfied with their educational programs. Figure 1 indicates that the large majority of respondents from each professional group are planning to pursue further education. The type of education that they are planning to pursue is described in the respective professional group’s section in the appendix.

Figure 1: New Graduates' Plans To Pursue Further Education



New graduates were also asked whether, if they had their time back, would they choose the same program at the same institution, the same program at a different institution, a different program at the same institution, or a different program at a different institution.

Table 6: Choice Of Program

Professional Group	Same Program, Same Institution	Same Program, Different Institution	Different Program, Same Institution	Different Program, Different Institution	Other
MLT	70% (7)		10% (1)	20% (2)	
LPN	66% (71)	8% (9)	10% (11)	10% (11)	5% (5)
OT	55% (6)	27% (3)	9% (1)		9% (1)
PH	60% (3)		20% (1)	20% (1)	
PT	57% (4)	29% (2)		14% (1)	
RN	62% (33)	6% (3)	9% (5)	15% (8)	8% (4)
RT	77% (10)	8% (1)	8% (1)	8% (1)	
SW	91% (50)		4% (2)	2% (1)	4% (2)

As Table 6 reveals, the majority of respondents, if they had their time back, would choose the same program at the same institution, with the percentage of respondents varying from 55% up to 91%.

Educational program respondents were asked to list the major strengths of the program's graduates, and employers were asked to list the top areas in which graduates from specific professional groups were well prepared. Table 7 outlines the responses.

As can be seen from the table, the majority of employers were satisfied with the knowledge base of recent graduates, and with most programs this is a major strength. Educational program respondents across all groups appeared to be satisfied with graduates' levels of preparation and readiness for the workplace.

Table 7: Educational Program And Graduates' Strengths

Professional Group	Educational Program Perspective			Employer Perspective		
	Major Strengths Of Educational Program Graduates?			Areas In Which Graduates Are Particularly Well Prepared?		
	Strength 1	Strength 2	Strength 3	Area 1	Area 2	Area 3
US	Readiness for the workplace	Enthusiastic	Accredited program	Patient care	Positioning	Anatomy and physiology
MLT	Readiness for the workplace	Enthusiastic	Accredited program	Theory/academics	Technical skills	Independence and professionalism
LPN	Knowledge base	Compassionate	Competent	Skills	Knowledge base/theory	Scope of practice
OT	Field experience	Ability to develop services		Clinical skills	Knowledge base	Team orientation
PH	Well prepared	Clinical skills	Communication skills	Clinical knowledge	Skills	Direct patient care activities
PT	Clinically well rounded	Good research background	Strong sense of professionalism	Technical/clinical skills	Knowledge base	Knowledge of specific areas (i.e. medicine, orthopedics, surgery, etc.)
RN	Commitment to learning	Critical thinking	Knowledge base	Theory/knowledge base	Clinical/assessment skills	Independence
RT	Readiness for the workplace	Hard working	Accredited program	Clinical/technical skills	Preparation for specialty clinical areas	Knowledge base
SW				Knowledge base/theory	Assessment skills	Counseling/interviewing skills
MRT	Committed faculty	Strong clinical component	Nationally accredited program	Technical expertise	Patient care	Knowledge base

3.5 Recruitment of Professional Groups

Figure 2 summarizes the professional groups which were identified by Human Resource Department respondents as being the most difficult to recruit for their particular board. As can be seen from the chart, the professional group mentioned most was RNs, followed by OTs and PTs.

Figure 2: Difficulty In Recruitment By Professional Group

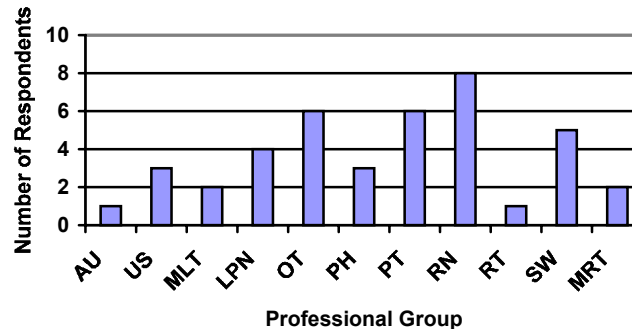


Table 8 summarizes responses as to the reasons for recruitment difficulty, by professional group. This should be interpreted with caution in that, although the response rate for this survey was high, a small population was surveyed, and therefore the number of times each professional group was mentioned is low.

Table 8: Explanation For Recruitment Difficulty From HR Perspective

Professional Group	Shortage	Geography	Monetary	Number Of New Graduates	Lack Of Available Positions/Status Of Position	Other	Total Number Of Respondents
AU*	1						1
US	1		1		1		3
MLT		1		1			2
LPN	2				1	1	4
OT	2		2		1	1	6
PH			3				3
PT	3		2		1		6
RN	6	2					8
RT			1				1
SW	1	3			1		5
MRT		1			1		2

* Audiologists (AU) – while not included within the scope of this project, the group was identified by a HR department within the survey as having a shortage.

Ninety-two percent of Human Resource Department respondents felt that there were not an adequate number of health professionals being trained in the province to meet current and future needs. The top three professional groups in which respondents felt there was a need to increase enrollment were RN, PT and OT groups, respectively. Other groups in which an increase in enrollments was indicated include US, MLT, LPN, PH, RT, SW and MRT.

Educational program respondents were also asked whether they felt there were adequate numbers of their professional groups being trained for current and future need in the province. Table 9 outlines the responses to the question and the average attrition rate for programs from students' acceptance to graduation.

Table 9: Graduates Required For Current And Future Need, Educational Program Perspective

Professional Group	Adequate Numbers Being Prepared?		Explanation (Where Given)	Average Attrition
	Y	N		
US	✓			0
MLT	✓			0
LPN		✓		0-11
OT		✓	Limited understanding of OTs potential. Shortage when considering aging population and inclusion of people with disabilities	2
PH	✓	✓	Graduating an adequate number of students, but they are not staying in the province	1
PT		✓		2
RN		✓		23*
RT	✓			0
MRT	✓			0

There appears to be agreement between Human Resource staff and Educational Program respondents with the need for an increase in the number of RNs, OTs and PTs being trained in the province. However, Human Resource respondents indicate that many of the other groups also should increase their enrollments.

* Number represents average attrition from the program. There were 163 graduates in 2000 out of 220 entry students in 1996. Some students from this class, who were delayed in completing academic requirements, have graduated with subsequent classes.

3.6 Transition to the Workplace

Both employers and educational program respondents were asked whether they felt that there was adequate communication between the educational facilities and future employers of their graduates. Table 10 outlines the respondents' perceptions on adequateness of communication. Where both 'Yes' and 'No' are noted, respondents were evenly split in their perceptions. This may be due to the fact that for some of the groups, the number of employer responses is quite small.

Table 10: Perceptions Of Communication Between Educational Facilities And Employers'

Professional Group	Adequate Communication Between Educational Facilities And Future Employers'?			
	Education		Employer Majority	
	Y	N	Y	N
US	✓		✓	
MLT	✓		✓	✓
LPN	✓	✓		✓
OT		✓	✓	
PH		✓		✓
PT	✓			✓
RN	✓		✓	
RT	✓		✓	✓
SW	No response		✓	✓
MRT	✓		✓	✓

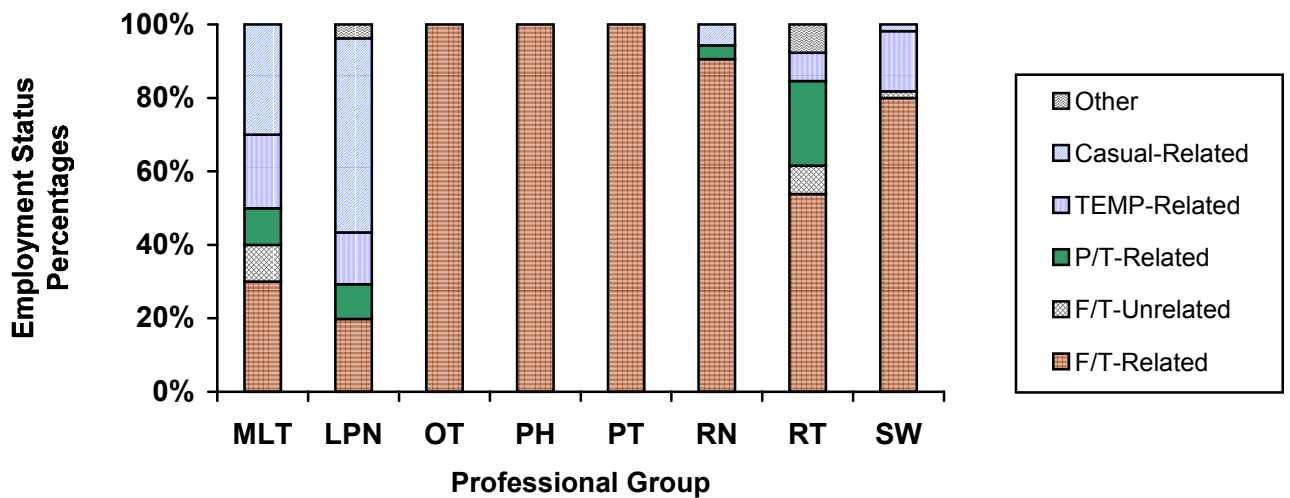
As illustrated in Table 10, with the exception of OT and PT, educational program respondents generally felt that there was adequate communication between the educational facilities and employers, while LPN educational program respondents were evenly split in their perception. The majority of employer groups, however, were either evenly split or perceived a lack of communication between the two parties. In particular, the LPN, PH, and PT employer respondents felt there was inadequate communication between educational programs and employers.

When asked for the top three strategies that could be employed by public sector employers to ease the transition of graduates to the workplace, the top three strategies mentioned by educational representatives included: (1) an adequate orientation program, (2) mentoring programs and (3) more clinical experience. When employers were asked the same question, the top three strategies mentioned were: (1) mentoring programs, (2) increased clinical experience and (3) education around the health team and teamwork in the workplace. As can be seen here, there are commonalities between employers and educational facilities on the strategies that would ease the new graduate transition. It is

interesting however, that an adequate orientation, while it was mentioned for a number of professional groups, was not one of the top strategies mentioned by employers.

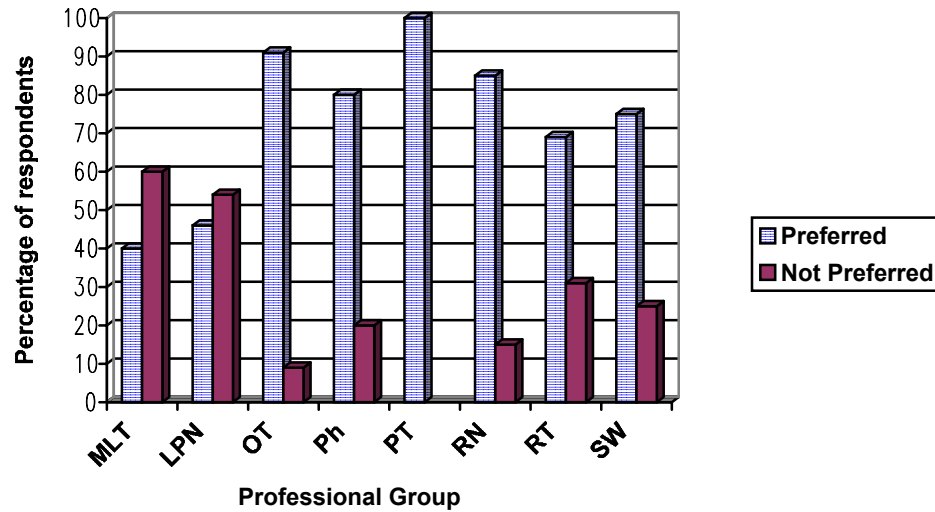
It is believed by many that permanent positions will keep new graduates from health professional program in the province. As can be seen from Figure 3, 100% of OT, PH, and PT respondents were employed in full-time positions related to their education. The majority of RNs and SWs were also employed full-time in positions related to their education. For LPN respondents, the majority were employed in casual positions, related to their education.

Figure 3: Employment Status By Professional Group



As can be seen in Figure 4, those groups in which the majority of respondents were employed in full-time positions related to their educational preparation were also employed in their preferred employment status. For the MLT and LPN groups, more respondents indicated that they were not in their preferred employment status, and as can be seen in Figure 3, a small percentage of these respondents were employed in full-time, related positions.

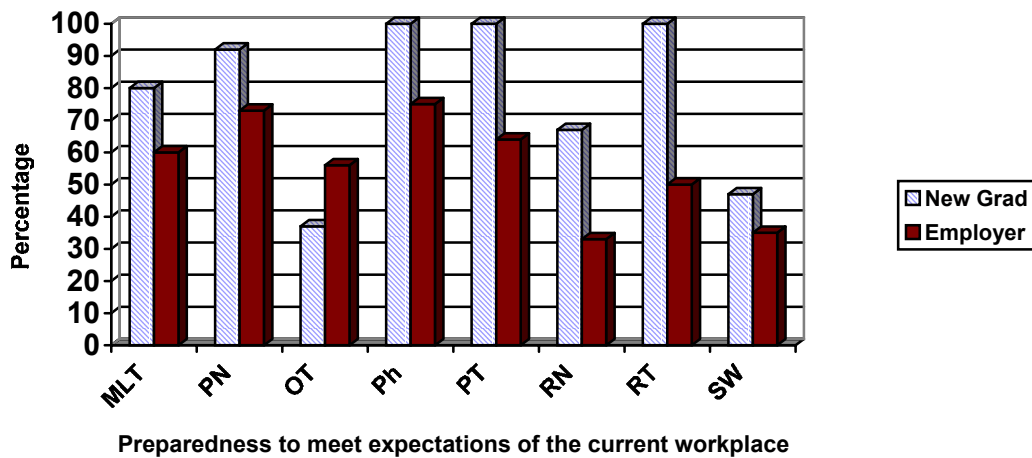
Figure 4: Satisfaction With Employment Status



3.7 Perceptions of Graduate Preparedness

The survey sent to recent graduates of the health professional programs asked whether the graduates felt that they were prepared to meet employers expectations, and if not, how long it took to meet these expectations. The survey sent to employers asked a similar type question – whether graduates were adequately prepared for the current workplace. Educational program and the Human Resource Department survey also asked whether respondents felt that recent graduates were adequately prepared for the workplace. The following is a summary of responses to these questions across surveyed groups. A discussion of the results for each professional group with regards to these questions can be found in the appropriate appendix. Again, it should be noted that ultrasound and MRT new graduate responses are not included in this discussion due to low response rates in these professional groups.

Figure 5: Comparison Of New Graduate And Employers' Perceptions' Of Preparedness For The Workplace



As Figure 5 reveals, employer and new graduate perceptions of preparedness for the workplace appears to follow a trend. With the exception of OTs, new graduates felt more prepared to meet employers' expectations than employers felt that new graduates were prepared for the workplace. OT respondents felt least prepared to meet employers' expectations when compared to all other professional groups surveyed, and interestingly, this is the only group in which employers' felt more positive about preparedness than new graduates. This may indicate that employers are not providing feedback to OTs as to their performance in the workplace. However due to the small response group, further study is recommended to validate these OT findings.

Less than half of RN and SW employer respondents felt that new graduates were prepared for the current workplace. While a similar percentage of SW new graduate respondents felt prepared for the workplace, RN new graduate respondents were much more positive about their perceptions of preparedness when compared to their employers. There was also a large difference in perceptions of RT new graduate and employer respondents. As is the case with RN new graduate and employer respondents, twice as many RT new graduate respondents felt that they were adequately prepared to meet employers' expectations than employers' reported they were adequately prepared for the current workplace. It should be noted however that there were only four RT employer respondents, and one respondent did not provide a response to the question. Therefore, validation of these findings is recommended.

Human Resource Department representatives were asked in their survey whether they felt graduates of health professional programs were adequately prepared to work in the organization. Eight of 13 respondents felt graduates were adequately prepared, three felt they could not comment, one responded in the negative, and there was one non-respondent. The respondent, who did not feel graduates were prepared for the workplace, commented that RNs were not fully prepared for the workload. One other comment included that although the respondent felt that graduates were adequately prepared for the

workplace, they lacked experience. In this case, a specific professional group was not identified.

All but one educational facility respondent felt that graduates from their respective programs were prepared to enter the workforce. The one respondent that did not agree represented the PN program, but did not provide any changes that could be made to improve graduates' preparedness.

When recent graduates were asked if there were any specific topics/course not included in the educational program that are important to a successful transition from school to the workplace, topics listed that were common to a number of professional groups included more education in pharmacology, increased clinical experience and more education and experience in specialized areas. Each professional group had its' own topics that were specific to the professional group, and these can be found in the respective professional group's section in the appropriate appendix.

For the majority of professional groups, new graduate respondents felt that the educational program prepared them to work effectively with other health professionals in dealing with clients in the work setting. For those who did not agree, comments included the need for more clinical experience and exposure to other health disciplines.

3.8 Orientation

The large majority (90.2%) of employer respondents agreed that recent graduates require an orientation different/more extensive than experienced professionals. The top three reasons listed by respondents are the lack of experience of recent graduates, the need for both increased clinical orientation and specialized orientation. Other cited reasons include the need for a longer orientation and adjustment period and increased supervision.

New graduate survey participants were asked whether they received an orientation at the start of employment in their current position, and if so, the length of the orientation session. Table 11 summarizes the responses to the question. As can be seen in the table, the majority of new graduate respondents did receive an orientation at the start of their employment, and most orientations lasted 1 – 3 weeks.

Table 11: New Graduates' Orientation

Professional Group	Did you receive an orientation at the start of employment in your current position?								
	n	No (%)	Yes (%)						
			<8 hr	1-3 d	4-7 d	1-3 wk	3-5 wk	>5 wk	N/R
MLT	10		10	20		20	30	10	10
LPN	107	2		32	30	29	2	2	3
OT	11		18	18	9	46	9		
PH	5					80			20
PT	7	14	29	43		14			
RN	53		2	8	35	36	11	8	
RT	13	15	8		8	8	46		15
SW	55	31	20	29	7	7	4	2	

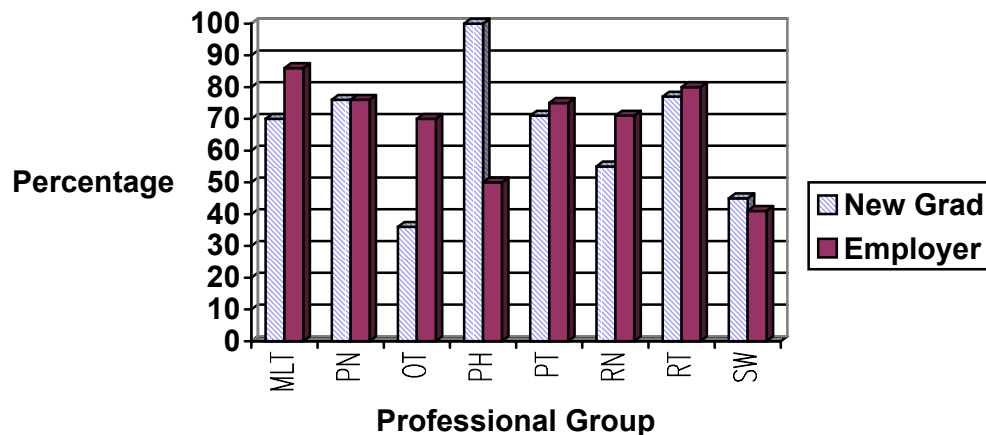
Table 12: Employers' Orientation Programs

Professional Group	Is there an orientation program in place? If so, what is the average length?								
	n	No (%)	Yes (%)						
			<8 hr	1-3 d	4-7 d	1-3 wk	3-5 wk	>5 wk	N/R
US	6	17				67	17		
MLT	7	14				43		43	
LPN	41	2		7	5	73			15
OT	23			4	9	70		4	13
PH	4					75		25	
PT	20	5		15		70		5	5
RN	51		2	2	2	67	8	14	6
RT	5					40	40	20	
SW	29	7		7		69	3		17
MRT	10	10				80	10		

As can be seen from Tables 11 and 12, overall there was agreement between new graduate and employer respondents as to whether they received an orientation, and whether there was an orientation program in place. Discrepancy exists between social

work graduates and employers, where only 69% of new graduates reported receiving orientation at the start of their current position, but 93% of social work employers indicated that they had an orientation program in place. There are also differences between RT graduates and employers. All RT employers reported having an orientation program in place, but 15% (2) of new graduate respondents reported that they did not receive an orientation. These numbers may vary due to the fact that the number of respondents is low for both the employers and the new graduates. There appears to be agreement in the fact that the majority of orientation programs are 1 – 3 weeks in length.

Figure 6: Perceptions Of Adequateness Of Orientation Programs



As can be seen from Figure 6, for most professional groups, there was a general agreement between new graduates and employers on the adequateness of orientation programs, although it is usually employers who are more positive about orientation program adequacy, when compared to new graduates. Gaps in these perceptions can be seen for OT and PH respondents. Only 36% of OT respondents felt that the orientation they received was adequate, while 70% of employers felt the orientation was adequate. The split for PH was 100% of new graduate respondents and 50% of employer respondents felt that the orientation programs were adequate.

For those new graduates who did not feel that the orientation was adequate, the majority reported that the orientation was not long enough, that the content was minimal, and that an orientation to the specific position was necessary. Employers surveyed were asked to identify the top three changes that they felt would improve current orientation practices, and the overall top three reported changes were: (1) inclusion of a mentorship in orientation, (2) a longer orientation period, and (3) increased clinical educator resources. Other changes mentioned include clinical experience/skills, development of an orientation package and evaluation and follow-up of orientation programs.

3.9 Preparedness for the Future Workplace

Both employers and educational program respondents were asked whether they felt that the program adequately prepared graduates to meet the future demands of the workplace/future health service issues. Table 13 outlines the responses to these questions and areas of concern identified by employers and educational program respondents. As can be seen from the table, responses and areas of concern are similar between employers and educational programs for some professional groups. For example, both the employer and education representative for US identified echocardiography and vascular skills as areas that need to be addressed to enable graduates to be prepared for the workplace of the future. Gaps in educational programs and areas of concern that were mentioned frequently across professional groups include concerns around the amount of clinical experience in educational programs, the ability of graduates to work in teams, and the level of graduates' computer/technology skills.

Employers were asked in their survey what they thought the top five changes in the workplace would be that would require a specific change in the type or combination of education received by health professionals in general. The top five identified changes were: (1) changing scope of practice, (2) the interdisciplinary team approach to care, (3) the move to community health, (4) the need for specialization, and (5) the use of/changing technology. It is interesting that each of these changes is noted in Table 13 as areas/gaps that may prevent graduates abilities to meet future demands of the workplace.

When Human Resource Departmental representatives were asked about foreseen changes in the workplace that would require a specific change in the type/combinations of education received by health professionals, areas mentioned included: (1) expanded roles for RNs and LPNs, (2) the use of OT and PT aides, (3) more interdisciplinary work, and (4) an increase in health professional program enrollments.

Table 13: Graduates' Preparedness For The Future

Prof. Group	Education program adequately prepares graduates for future demands of the workplace?					Program addresses future health service issues?				
	Employer Majority		Gaps in education?			Education		Areas of concern?		
	Yes	No	Gap 1	Gap 2	Gap 3	Yes	No	Area 1	Area 2	Area 3
US	✓		Echocardiography	Vascular studies/procedures			✓	Echocardiography skills	Neuromuscular skills	Vascular skills
MLT		✓	Transfusion medicine	Relating clinical conditions to lab results		✓		Cross training in basic MRT skills		
LPN	✓		Expanded role and advanced practice			✓		Limited clinical experience		
OT	✓		Specialized training	Versatility	Business skills training		✓	Excessive caseload for holistic services	Community interventions	Orientation to ability vs. disease
PH		✓	Clinical experience	Knowledge base	Computer skills		✓	Geriatric care	Alternative medicine	Technology in the workplace
PT	✓		Versatility	Advocacy roles	Specialty areas		✓	Community based care		
RN		✓	Clinical experience/skills	Coordinating care/leadership	Teamwork	✓				
RT	✓	✓	Independence	Defined skill set	Teamwork	✓				
SW	✓	✓	Clinical experience	Child & youth issues	Versatility					
MRT	✓		Computer skills	Technology theory			✓	More 'hands on' training		

4 Discussion

As was mentioned in the introduction, the study is limited by the low response rates from US, MLT, OT, PH, PT, RT, and MRT new graduate surveys, and the response from the School of Social Work at MUN had not been received at the time of this report. For this reason, it is difficult to draw sound conclusions for these groups, however, aside from the US and MRT new graduate survey groups, the results will be discussed.

Overall, new graduates were satisfied with their educational programs and if they had their time back, the majority would choose the same program at the same institution. The overwhelming majority of new graduate respondents are also planning to pursue further education. One interesting observation was the fact that more OT and PT new graduates, when compared to other professional groups, indicated that they would choose the same program at a different institution. Perhaps this alludes to the fact that there is some dissatisfaction with the seat-purchase program with Dalhousie University, as was mentioned in the OT and PT new graduate surveys.

SW new graduate respondents overwhelmingly reported that, if they had their time back, they would choose the same educational program at the same institution. This is interesting, especially considering the fact that less than half of social work graduates reported feeling prepared for the workplace. It can be seen by this that SW new graduates are satisfied with their educational program, and perhaps it is the specific nature of the positions in which they are employed that is leading to their feelings of lack of preparedness when entering the workplace.

There was agreement on the part of employer and educational program respondents that mentoring programs and an increase in the amount of clinical experience would ease the recent graduates transition from school to the workplace. In order to increase the amount of clinical experience that a student receives or to implement a mentoring program, additional resources in terms of educational program faculty and employer support is required. The large majority of education respondents reported that there will be a shortage of instructors/faculty in the near future and that there are issues around the availability of a sufficient number of preceptors to accommodate students, while the majority of employer respondents report that professionals in their division/unit do act as preceptors for students. Since this appears to be the case, one has to be cautious in determining if there is capacity in the educational and health systems to increase the amount of clinical experience a student can receive prior to graduation.

As for implementation of a mentoring program, this would also require an increase in the amount of staff time and resources an employer would have to dedicate to orientating a recent graduate. However, it is assumed that the amount of time and resources would only be required at the start of employment, and would decrease over time for each new employee. While it may be a time consuming and costly activity, it has the potential to make recent graduates feel more comfortable and supported in their new role, and would hopefully lead to feelings of satisfaction and safe competent practice in that they have support while gaining experience in their new role.

When it comes to perceptions of preparedness, less than half of the OT, RN and SW new graduate respondents felt that they were adequately prepared to meet employers expectations. This may be due to a number of factors. RN and OT respondents have the youngest average ages, at 24.1 and 25.9 years, respectively, when compared to the other professional groups. A majority of SW respondents are employed in the H&CS setting, perhaps in very specialized areas. The majority of the educational programs discussed in this report prepare generalist professionals, so there is not an opportunity to specialize. When new graduates go into specialty areas, they may feel very unprepared due to the fact that they may have only completed minimal preparation in the area.

OT new graduate respondents felt less prepared than did their employers. Also, few OT new graduate respondents felt that their orientation was adequate, while the majority of employers felt that it was. The low sample size in the current study prevents any concrete conclusions relating to this finding, however a more complete study relating to the preparedness of OT graduates for the workplace is recommended

In concluding, areas that require follow-up from this analysis include:

1. The employment setting of recent social work graduates and its implications on perceptions/feelings of preparedness for the workplace.
2. Educational programs evaluating the possibility of increasing the amount and or sequence of clinical experience provided in educational programs, particularly for RN and SW students.
3. Employers evaluating the possibility of implementing mentoring programs for new graduates who are entering the workplace to ease their transition from student to employee.
4. Follow-up on OT new graduate respondents' perceptions of preparedness, and why these new graduates do not feel prepared for the workplace.
5. Further study of groups with a low response rate in order to determine the validity of findings in this report.

5 Reference List

Maben, J. & MacLeod-Clark, J. (1996). Making the transition from student to staff nurse. Nursing Times, 92(44): 28-31.

Oermann, M.H. & Moffitt-Wolf, A. (1997). New graduates' perceptions of clinical practice. Journal of Continuing Nursing Education, 28(1): 20-25.

Ryan, M.E. & Hodson, K.E. (1992). Employer evaluations of nurse graduates: a critical program assessment element. Journal of Nursing Education, 31(5): 198-202.

Student Services Division. (2001). Graduate employment follow-up survey report: 1998-99 graduates. St. John's, NF: College of the North Atlantic.

Appendix A: Diagnostic Medical Sonography

New Graduate Survey

Three of the six surveys disseminated to 1996-2000 graduates of the ultrasound program at College of the North Atlantic were returned. Due to such a low response rate, the summary of responses would not be a representative sample of responses of the group as a whole, and will therefore not be reported here.

The Student Services Division of College of the North Atlantic released “Graduate Employment Follow-Up Survey Report 1998-99 Graduates” in March 2001, which did include information regarding ultrasound graduates. Two of a potential four graduates responded to the survey. Both respondents were employed in permanent, full-time positions directly related to their training. All respondents had been employed for 10 or more months since graduating.

Employer Survey

Six of the 82 employer respondents have ultrasonographers on staff. Caution should be noted when interpreting these results, due to the low number of respondents that employ ultrasonographers.

Five of the six employers were from an institutional board and the remaining respondent is from an integrated board. Five of these have orientation programs in place for ultrasonographers, with lengths ranging from 1-2 weeks (1), to 1-3 weeks (2), to 1-4 weeks (1), to 3-5 weeks (1). Three of the five institutional board managers felt that the orientation program was adequate, with one disagreeing with the statement and one not responding. The respondent from the integrated board reported that the orientation offered was adequate.

Ultrasound graduates, according to respondents, tended to be particularly well prepared in patient care, positioning, obstetrics/gynecology, anatomy and physiology, and abdominal skills. Only employers from the institutional boards responded to whether or not they felt ultrasound graduates were adequately prepared for the current workplace, and they were split on their perceptions. Some educational program gaps identified were clinical skills, positioning, scanning knowledge, echocardiography, musculo-skeletal skills, and vascular/doppler ultrasound. Of those respondents who did not feel that ultrasound graduates were adequately prepared for the current workplace, consensus was that it took approximately 6 months to be able to meet expectations.

Three respondents reported that they did not feel ultrasound graduates were prepared to meet the future demands of the workplace. Remaining employers of ultrasound graduates did not respond to the question. The top two educational program gaps identified by respondents were echocardiography and vascular studies/procedures. Other educational program gaps identified were carotid doppler, musculo-skeletal and breast skills.

The top strategy that respondents feel educational facilities should employ to ease the transition of recent ultrasound graduates to the workplace is clinical/scanning experience. Other strategies mentioned include enhancement of competency, equipment knowledge, and an extension of the program.

Educational Survey

A survey was sent to and received back from a representative of the Diagnostic Medical Sonography program at College of the North Atlantic. The responding representative felt that there was adequate communication between the school and the future public sector employers of ultrasound graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, the respondent indicated that the program was strong, that it produced work-ready students, and therefore graduates who were adequately prepared to enter the workforce. Identified strengths of the program's graduates include their work readiness, enthusiasm and the fact that the program is accredited.

Similar to the employers' responses, the educational respondent felt that some emerging practice areas that should be added to the general component of the program include echocardiography, neuromuscular and vascular ultrasound. These components were also identified as additions to the educational programs that would be required to respond to future changes in the workplace. The respondent did not feel that the curriculum of the program addresses future health service issues, and of most concern was the increasing use of ultrasound. Comments included:

“Increasing skills in areas of echocardiography, neuromuscular, vascular and many other areas may warrant a full 3 year program (presently 1 year post-diploma).”

It was felt that adequate numbers of ultrasonographers are being trained in the province to meet current and future need, with no attrition from the program.

Currently there is one instructor in the ultrasound program. As for whether there will be a shortage of instructors in the near future, the respondent agreed that there would be and that there is a need to adjust salaries to address this potential shortage.

Ultrasound students complete 26-36 weeks of clinical throughout their program. There is a concern about the availability of clinical preceptors to accommodate students. One step identified to increase the number of preceptors was employer compensation of preceptors for taking on the additional role.

When asked for additional comments, the following was reported:

“This is a post RT (radiography program). Effective Jan 2005 a degree will be required by CAMRT for RT. Total training time will expand from current 4 years (3+1) to 5.5 years - very expensive for students.”

Appendix B: Medical Laboratory Technology

New Graduate Survey

Eighty-three surveys were disseminated to eligible 1996-2000 graduates of the Medical Laboratory Technology (MLT) program at College of the North Atlantic. Six surveys were returned indicating the address had changed. Of the remaining 77 eligible surveys, 10 were returned, for a 13.0% response rate. All respondents were female with an average age of 27.9 years. All were graduates from the program at College of the North Atlantic.

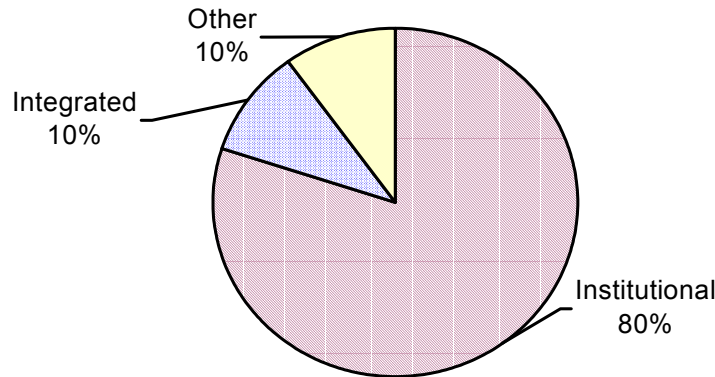
The low response rate may be due to the fact that many of the addresses used to disseminate the survey were obtained from the College of the North Atlantic. In many cases, these addresses were a few years old, and it is likely that many have changed since graduation from the program. It should also be noted that, due to the low response rate, the results reported here might not be reflective of the attitudes and opinions of the entire group.

Table 1: Medical Laboratory Technologists Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.0
Educational facilities (i.e. libraries, labs, computer facilities)	2.7
Student facilities (i.e. cafeterias, etc.)	2.6
Level of technology available in program	3.8
Class size	4.7
Access to program faculty members	4.6
Availability/access to required courses	4.5
Overall quality of teaching	4.2
Content of material covered in program	4.2
Skills and knowledge acquired	4.1
Balance between theory and practice	3.5
Adequate practical/clinical experience	3.3
Overall cost of the program	4.0
Availability of financial assistance	4.1
Overall experience at the educational facility	4.3
Average	3.8

As can be seen from Table 1, when asked to rate on a scale of '1' to '5', '1' being very dissatisfied and '5' being very satisfied with elements of the educational program, graduates of the MLT program at College of the North Atlantic have indicated a high level of satisfaction with the educational program, and were most satisfied with their class sizes. Levels of dissatisfaction were reported when considering educational and student facilities.

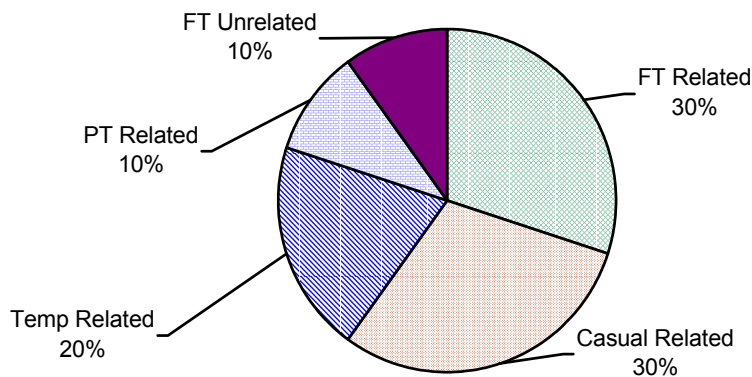
Figure 1: Practice Setting Of Medical Laboratory Technologists



When survey responses were analyzed on the basis of employment setting, as can be seen in Figure 1 the majority of respondents were employed in an institutional setting. Of the eight respondents employed in this setting, seven felt that they were adequately prepared to meet employers' expectations.

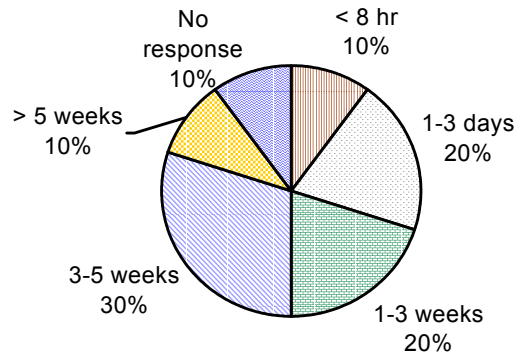
Nine respondents indicated that their educational experience adequately prepared them for the job market, while one respondent indicated that the program did not prepare them and that they could not find employment in the area. Eight respondents reported that their educational programs prepared them to work effectively with other health professionals in dealing with clients and the work environment. The two respondents who felt the program did not prepare them in this capacity did not give an explanation. When asked about specific topics or courses that were not included in the educational program, but are important to the successful transition from student to employee, respondents indicated phlebotomy/blood collection, clinical or ward experience, computers and public speaking to be priorities. When respondents were asked if they had their time back, seven indicated that they would choose the same program and same institution, two, a different program and different institution, and one, a different program at the same institution.

Figure 2: Employment Status Of Medical Laboratory Technologists



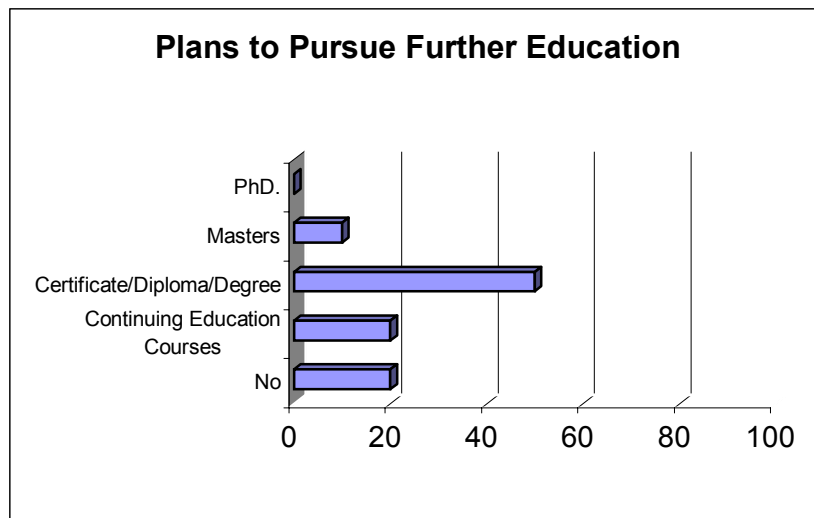
As can be seen in Figure 2, the majority of respondents were working in either full-time or casual positions related to their education. Six respondents were not in positions that would be their preferred employment status. Of those who were not employed in their preferred capacity, three would prefer full-time permanent positions, one would prefer work in the medical field, and one responded other. Four of the respondents employment status has changed from casual to full time since initial hire, and six respondents have remained in the same employment status.

Figure 3: Length Of Orientation For Medical Laboratory Technologists



As can be seen from Figure 3, all respondents received an orientation session at the start of employment in their current position. Orientations ranged from less than eight hours to more than five weeks. Five of the eight respondents employed in the institutional setting felt that their orientation was adequate. Those that did not feel the orientation was adequate reported that it was minimal and that there was not enough hands on experience in the orientation.

Figure 4: Medical Laboratory Technologists' Plans To Pursue Further Education



Eight of the ten respondents indicated that they are planning to further their education. Figure 4 gives a breakdown of the types of programs respondents were planning to pursue.

When asked about foreseen changes in the profession that could possibly lead to a different approach to education, only one of the respondents mentioned the movement to a degree program. When asked to provide general comments, statements included:

“I would like to see more hospital time put into the program. From my past experience I feel the national exam is based a lot on hands on experience. Being put into real life situations in the lab of a hospital is a better learning and understanding of what is expected of you.”

“Too many casual/temp/on-call jobs in health care. Does not motivate one to stay in the field. Have children and sitters do not like to be on call. Don't want to wait 10 years to work my way to a full time tech (RT) job. Too long.”

“I feel that the medical laboratory program at the College of the North Atlantic is an excellent program and I would recommend it to anyone who is looking for a challenging career.”

Employer Survey

Of the 82 employer respondents, seven (8.5%) have MLTs on their staff. Caution should be observed when interpreting these results due to the low number of respondents that employ MLTs.

Six of the respondents were from an institutional board and one is from an integrated board. Six of the seven respondents who manage MLTs have an orientation program in place. Orientations range from 1-3 weeks (3), to < 8 weeks (1), to 8-12 weeks (1) to 12-16 weeks (1). For those employers in the institutional boards, five of six felt that their orientation programs were adequate. The respondent from the integrated board also believed the program was adequate. One individual did not provide a response.

When asked about areas in which MLTs seem to be particularly well prepared, the top response was in the area of theory/academics, followed by technical skills, independence and professionalism. As for whether MLTs are adequately prepared for the current workplace, all respondents were from the institutional boards, and three out of five respondents agreed that MLT graduates were adequately prepared. Gaps identified by respondents who felt the graduates were not prepared include the confidence level of recent graduates, computer and communication skills. Two respondents felt that it took 1 year for graduates to meet employer expectations.

A slight majority of respondents did not feel that the laboratory technology educational program prepares graduates to meet the future demands of the workplace. The top educational program gaps identified include transfusion medicine, and relating clinical

conditions to lab results. Other areas mentioned include antibiotic therapy, organizational skills, networking and problem solving.

Half of those who responded felt that there was adequate communication between the employer and the educational facility. Strategies that employers indicated educational facilities should employ to ease the transition of MLTs to the workplace include clinical placements, having staff be responsible for training new staff, and to combine with radiography technology program.

Educational Survey

A survey was sent to the MLT program at College of the North Atlantic. The responding representative felt that there was adequate communication between the school and the future public sector employers of MLT graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, the respondent indicated that the program was strong, and that it produced work-ready students. As with the majority of employers, the respondents felt that the program produced graduates who were adequately prepared to enter the workforce. As with the Diagnostic Medical Sonography program, identified strengths of the program's graduates include their work readiness, enthusiasm and the fact that the program is accredited.

As for future changes in the workplace that will require a specific change in the type of education received by MLTs, the following was reported:

“There is a need for cross training (1 year) of lab technologists in basic x-ray skills to meet need for combined lab/x-ray personnel in rural areas. The program is developed and held up due to problems within provincial legislation.”

It was felt that adequate numbers of MLTs are being trained in the province to meet current and future need, and that the curriculum of the program addresses future health service issues. Average attrition rates from acceptance into the program to graduation is zero.

Currently there are five full-time instructors in the MLT program. As for whether there will be a shortage of instructors in the near future, the respondent agreed that there would be and that the main issue is salaries.

MLT students' complete 12-16 weeks of clinical throughout their program. There is a concern about the availability of clinical preceptors to accommodate students. As with the ultrasound program, one step identified to increase the number of preceptors was for the employer to provide compensation to the preceptor for taking on the additional role.

When asked for additional comments, the following was reported:

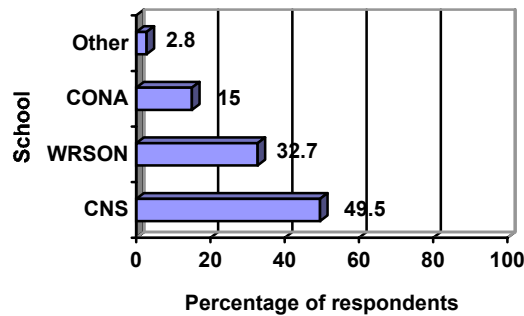
“The practice of offering graduates "casual" or temporary employment encourages graduates to leave the province for full-time, better paying positions.”

Appendix C: Licensed Practical Nurse

New Graduate Survey

Of the 244 surveys disseminated to 1996 – 2000 PN graduates, 107 were returned, for a response rate of 43.9%. The majority of respondents were female (95.3%), 3.7% were male, and 0.9% of respondents' did not indicate gender. The average age of respondents was 30.9 years.

Figure 1: Licensed Practical Nurses' School Of Graduation



As can be seen from Figure 1, 97% of respondents graduated from the PN program brokered through the Centre for Nursing Studies. The remaining respondents graduated from programs outside of the province or did not indicate the school from which they graduated. Three percent of respondents completed an LPN refresher program. The reason that surveys may have been returned from those who did not graduate from a provincial PN program and those that completed the LPN-refresher course is because the CLPN may have circulated the survey to **all** new registrants between 1999 and 2000. This would be inclusive of all LPNs practicing in the province, not just those who graduated from a provincial PN program.

Table 1: Licensed Practical Nurses' Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.8
Educational facilities (i.e. libraries, labs, computer facilities)	3.4
Student facilities (i.e. cafeterias, etc.)	3.2
Level of technology available in program	3.7
Class size	3.9
Access to program faculty members	4.0
Availability/access to required courses	4.1
Overall quality of teaching	3.8
Content of material covered in program	3.8
Skills and knowledge acquired	4.0
Balance between theory and practice	3.8
Adequate practical/clinical experience	4.0
Overall cost of the program	1.7
Availability of financial assistance	3.4
Overall experience at the educational facility	3.9
Average	3.6

As can be seen from Table 1, LPNs were most satisfied with the availability/access to required courses, access to program faculty members, skills/knowledge acquired, and adequate practical/clinical experience. Respondents were most dissatisfied with the overall cost of the program.

When asked whether the educational experience adequately prepared them for the job market, 88.8% responded positively. Of the 11.2% who did not feel the program adequately prepared them, the most prevalent comments included more clinical/practical experience, and scope of practice issues. When respondents were asked if they had their time back, 65.4% said they would choose the same program at the same institution, 8.4% would do the same program at a different institution, 10.3% would choose a different program at the same institution, and 10.3% a different program at a different institution. Three percent did not respond to the question. A large majority (90.7%) of respondents reported that the educational program prepared them to work effectively with other health professionals.

Figure 2: Licensed Practical Nurses' Preparedness And Time Taken To Meet Employers' Expectations

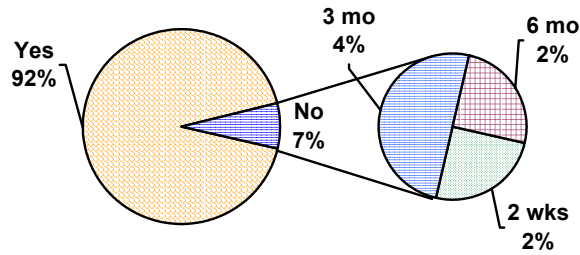
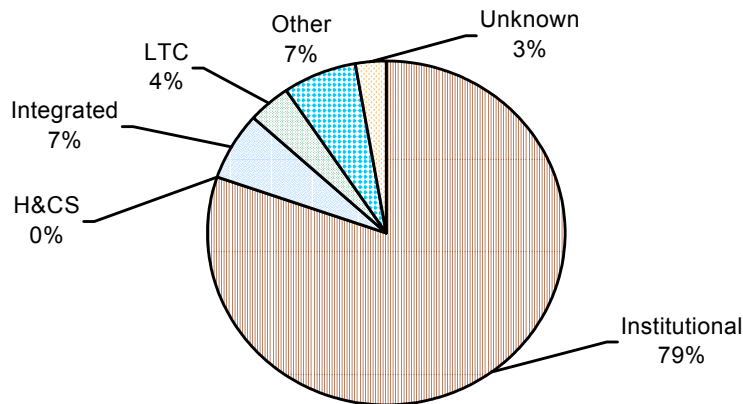


Figure 2 illustrates respondents' perception of preparedness to meet employers' expectations. As can be seen from the figure, the majority of respondents (92%) responded positively. For those who did not feel adequately prepared, the length of time it took to meet these expectations ranged from 2 weeks to 3 months. When looking at the LPNs employment setting, as can be seen in Figure 3, 79% of LPNs were employed in the institutional setting, followed by the integrated (7%), and long-term care settings (4%). Of those employed in the institutional setting, 93% of respondents felt that they were adequately prepared to meet employers' expectations. All of those employed in the integrated and long-term care settings felt that they were prepared to meet employers' expectations.

Figure 3: Practice Setting Of Licensed Practical Nursing New Graduates



When asked if there were any specific topics/course not included in the educational program that are important to a successful transition from school to the workplace, the top five responses included: (1) additional skills, (2) medication issues, (3) a health assessment course, (4) increased clinical experience, and (5) scope of practice issues. Other courses/topics mentioned include counseling skills, injury prevention, and disease

education. As can be seen in Figure 4, the majority of respondents plan to pursue further education.

Figure 4: Licensed Practical Nurses' Plans To Pursue Further Education

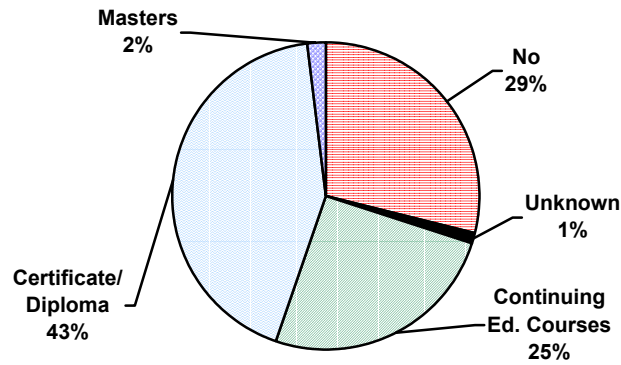


Table 2: Employment Status Of Licensed Practical Nurses

Option	Percentage of Respondents
Full-time related position	19.6%
Part-time related position	9.3%
Temporary related position	14.0%
Casual related position	52.3%
In school	0.9%
Looking for work	0.9%
Not working/Not looking for work	0.9%
Other	1.9%

As can be seen from Table 2, the majority of respondents were employed in positions related to their educational preparation. When asked if respondents were satisfied with their current employment status, 45.8% agreed. Of the majority of respondents who indicated that they were not employed in their preferred employment status, cited reasons include a preference for full-time and permanent positions. Twenty-five percent of respondents reported that their employment status changed since initial hire.

Figure 5: Length Of Orientation For Licensed Practical Nurses

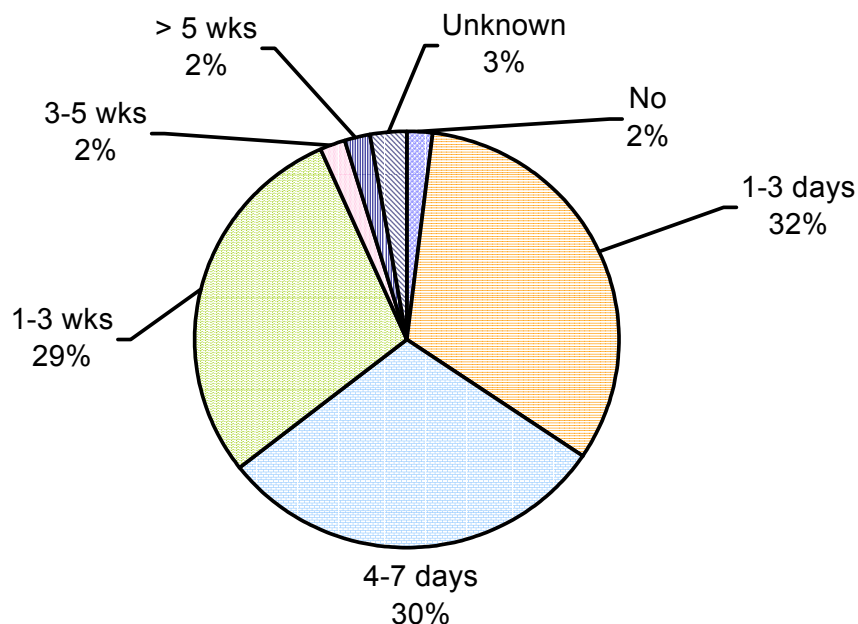


Figure 5 illustrates the length of orientation that LPN respondents received at the start of employment in their current position. As can be seen, orientations ranged from no orientation to > 5 weeks. When examining the adequateness of orientation and employment setting, 75%, 86% and 75% of respondents employed in the institutional, integrated, and long-term care settings respectively, agreed that it was. For those who did not agree it was sufficient, comments included the orientation was minimal, and not long enough.

When asked about foreseen changes in the profession or client/patients that may require a different approach to education, the top responses included taking on the full scope of practice and medication administration. Other comments focus on an increase in the number of skills that LPNs are able to perform, an increase in educational requirements, and credits towards a BN degree.

The top themes in the general comments section of the survey included scope of practice issues, extension of the educational program, satisfaction/dissatisfaction with the educational program, and the need for increased clinical experience. Specific comments include:

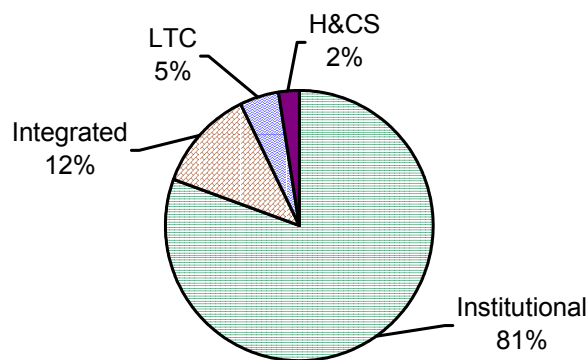
“I feel it should be mandatory across the province that all LPNs be required to upgrade their skills to the minimum level of all new graduates. As well, the skills learned should be practiced in the health care setting. At the moment, new graduates are not utilizing their skills because of the limited scope of practice in this province. It is very frustrating to have skills that you are unable to practice when other provinces allow it.”

“I found the past year of study to be very intense...was very overwhelming. I think the course could actually be extended over an extra semester...We were very fortunate to have caring and knowledgeable instructors in these areas. I feel the training I received fully prepared me for my current scope of practice.”

Employer Survey

Forty-one of the 82 (50%) employer respondents indicated that they manage LPNs. As can be seen in Figure 6, the majority of respondents were from the institutional health boards. Ninety-eight percent of respondents have orientation programs in place, ranging from 1-3 days (7.3%) to 4-7 days (4.9%) to 1-4 weeks (63.4%). Of those respondents in the institutional boards, 79% felt the orientation program was adequate, 6% disagreed and 15% did not provide a response. Eighty percent in the integrated and 50% of those in long-term care felt their orientation programs were adequate.

Figure 6: Licensed Practical Nurse Employment Sector Response Rates



The top three areas in which LPNs appeared to be particularly prepared were in skills, knowledge base/theory, and scope of practice. Other areas mentioned as strengths of LPN graduates include team orientation, clinical experience, and client focus. Of those managers from the institutional boards, 68% of respondents felt that LPN graduates were prepared for the current workplace. All of the integrated and long-term care respondents felt that LPNs were adequately prepared. For those who did not feel that LPNs were adequately prepared, some educational program gaps identified were clinical experience/skills and professionalism. The majority of these respondents indicated that it took about three months for the recent LPN graduates to meet their expectations, while other respondents indicated that it took two weeks.

Of those that responded to the question, just over half of indicated that the PN program prepared its graduates to meet the future demands of the workplace. Of those who did not agree with this statement, expanded role and advanced practice were mentioned most frequently as gaps in the educational program. The majority of respondents did not feel that there was adequate communication between the educational facilities and the employers of LPNs.

The top three strategies that were suggested for educational facilities to employ to ease the transition of LPNs into the workplace are preceptorship/mentorship programs, more clinical experience, and longer orientation. Other suggestions include proficiency in medication administration, extension of the program, and exposure to all areas of the nursing profession.

Educational Survey

A survey was sent and responses were received from four Directors/Coordinators of the provincial PN program brokered through the Centre for Nursing Studies. Respondents were split on whether they felt that there was adequate communication between the school and the future public sector employers of PN graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, as with the employer survey, the top responses were longer/adequate orientations, and mentoring programs. Other responses included hiring new graduates in permanent positions, positive attitudes from co-workers and increased clinical experience. As with the majority of employers, three out of four respondents felt that the program produced graduates who were adequately prepared to enter the workforce. When asked for the major strengths of PN graduates, areas identified were knowledge base, caring/compassion, and confidence. Other strengths mentioned include professionalism, team orientation and critical thinking skills.

When asked about emerging practice areas that should be added/expanded as a general component of the PN program, one respondent mentioned medication administration and a home care clinical experience. Other respondents felt that the program covered all areas adequately. As for future changes in the workplace that will require a specific change in the type of education received by LPNs, the most common response related to LPNs taking on the full scope of practice. Three of four of the respondents felt that the curriculum of the PN program addressed future health service issues. For the respondent that disagreed, they felt that there were limited clinical experiences. All respondents agreed that there were not an adequate numbers of PNs being trained in the province to meet current and future need. The average attrition rate from the program ranged from zero to 11 students, from acceptance to graduation.

In the PN programs that these respondents represent, there were eight full-time, 12 part-time and one sessional faculty. As for whether there will be a shortage of instructors in the near future, two of the four agree that there will be. Reasons cited include the facts that while BNs are interested in teaching, boards are unable to release nurses from their regular duties to teach.

PN students complete 16-25 weeks of clinical throughout their program. Three of four respondents do not indicate recruitment of clinical preceptors as a concern. The one respondent who does experience difficulties states that the start time of the preceptorship should be changed.

When asked for additional comments, the following was reported:

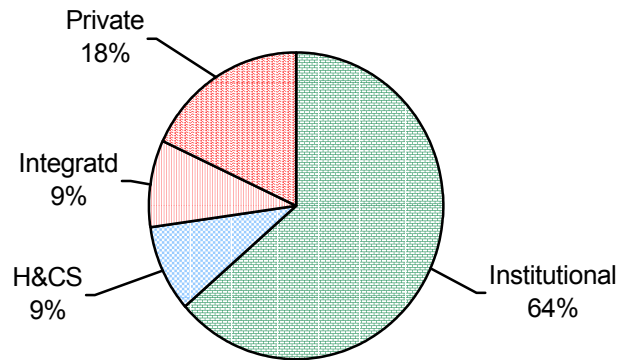
“The program is presently 11 months and very intense. Competencies have been added to the program over the last few years, with no lengthening of the program. If students are to be prepared to function to the full scope of practice in this province, the program has to be lengthened.”

Appendix D: Occupational Therapy

New Graduate Survey

Thirty-three of the 34 surveys sent to OT students who graduated between 1996 –2000 were eligible (one was returned to sender), and 11 completed surveys were returned, for a response rate of 33%. All respondents were female with an average age of 25.9 years. Ninety one percent of respondents graduated from Dalhousie University in Nova Scotia, and 9% graduated from Queen’s University in Ontario.

Figure 1: Practice Setting Of Occupational Therapists



All respondents were employed full time in a position related to their educational preparation. As can be seen in Figure 1, the majority (64%) of respondents were employed in the institutional setting. A large majority of respondents (90.9%) indicated that they were employed in their preferred employment status, and 9.1% indicated that they would like a change in their career. Eighty-two percent of respondents had the same employment status since initial hire, while the remaining respondents have moved from temporary to permanent positions and into new OT positions.

Table 1: Occupational Therapists' Satisfaction With The Educational Program

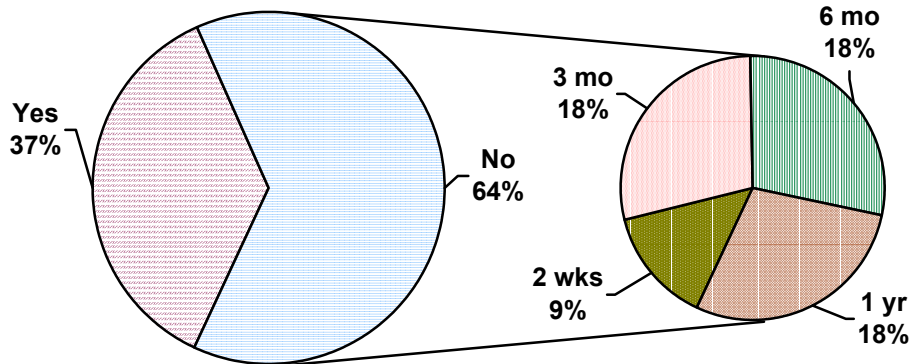
Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.1
Educational facilities (i.e. libraries, labs, computer facilities)	4.2
Student facilities (i.e. cafeterias, etc.)	3.3
Level of technology available in program	3.7
Class size	4.4
Access to program faculty members	3.9
Availability/access to required courses	4.5
Overall quality of teaching	3.7
Content of material covered in program	3.0
Skills and knowledge acquired	3.5
Balance between theory and practice	3.2
Adequate practical/clinical experience	3.5
Overall cost of the program	2.5
Availability of financial assistance	2.6
Overall experience at the educational facility	3.5
Average	3.5

As can be seen from Table 1, overall respondents were satisfied with their educational program. Responding OTs were most satisfied with the availability/access to required courses and class size, and expressed dissatisfaction the overall cost of the program and availability of financial assistance.

When posed the question, “(i)f you had your time back which option would you choose,” 54.5% chose same program at the same institution, 27.2% chose the same program at a different institution, 9.0% chose a different program at the same institution, and 9.0% chose other. Eighty-two percent of respondents were planning to further their education. Of those, 36.3% plan to pursue continuing education courses, 27.2% a Masters degree, and 18.1% certificate/diploma/degree programs.

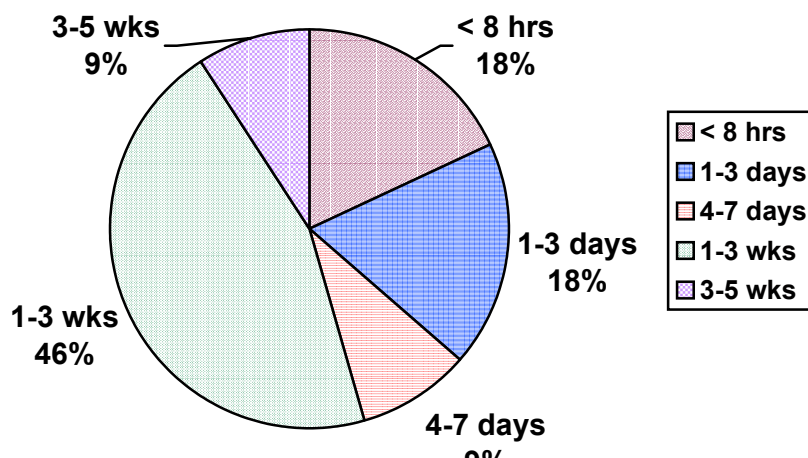
Over half of respondents (54.5%) indicated that their educational experience did not adequately prepare them for the job market. Comments included that the practical knowledge base was lacking, there was not enough opportunity for skill development/practical knowledge base, no specific training was given, learning occurred in the workplace, and the need for more administrative education. The majority of respondents (91.0%) felt that the educational program prepared them to work effectively with other health professionals in dealing with clients and the work setting.

Figure 2: Occupational Therapists' Preparedness And Time Taken To Meet Employers' Expectations



As can be seen in Figure 2, the majority of OT respondents (63.6%) did not feel that they were adequately prepared to meet employer expectations upon graduation. The length of time it took respondents to be able to meet expectations ranged from 2 weeks to 1 year. When asked about specific courses/topics that were not included in the educational program, but that are important to a successful transition from the school to the workplace, 45.4% of respondents indicated pediatrics as an area. Some other comments included more training in specialized areas, and greater access to electives. When examining preparedness to meet employers' expectations and the employment setting, it was found that 43% of respondents employed in the institutional setting felt prepared to meet employers' expectations. Of the three other settings in which OTs were employed, only those in H&CS felt prepared to meet employers' expectations. OTs in the integrated and private settings did not feel adequately prepared in this capacity.

Figure 3: Length Of Orientation For Occupational Therapists



All respondents received an orientation at the start of employment in their current position. As can be seen from Figure 3, most respondents received a 1-3 week

orientation, but it ranged from less than eight hours to 3-5 weeks. When asked whether this orientation was adequate 43% of those employed in the institutional setting and 50% of those employed in the private sector indicated it was. The remaining 18% of respondents employed in H&CS and integrated settings, maintained the orientation was insufficient, citing that it was not long enough, should have included job shadowing, and more was needed on specific OT positions.

When asked about foreseen changes in the profession or clients/patients that would require a different approach to education, responses included more emphasis on private practice, continuing education in specialty areas, and relocating from communities. When asked for additional comments, statements included orientation in all areas is needed, there should be rotational opportunities for new graduates, overall satisfaction with the program, student placements should be in the Atlantic provinces, and important for the curriculum to be based on trends.

Employer Survey

Twenty-three of the 82 respondents (28.0%) indicated that they have OTs on staff in their division/unit, all of which have an orientation program in place. As can be seen in Figure 4, 74% of employer respondents were employed in the institutional boards.

Figure 4: Practice Setting Of Occupational Therapy Employers'

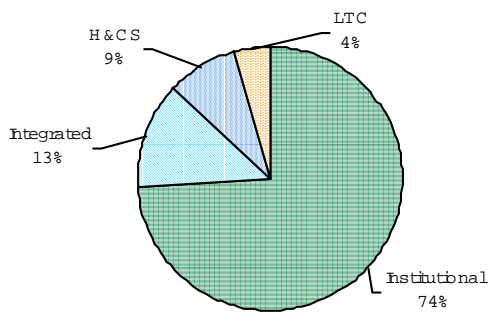
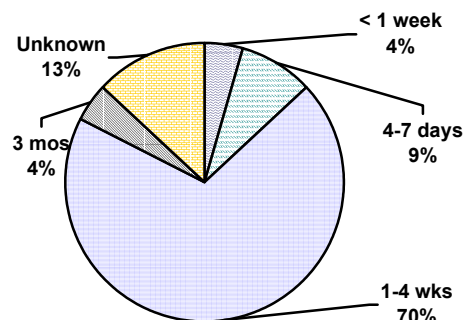
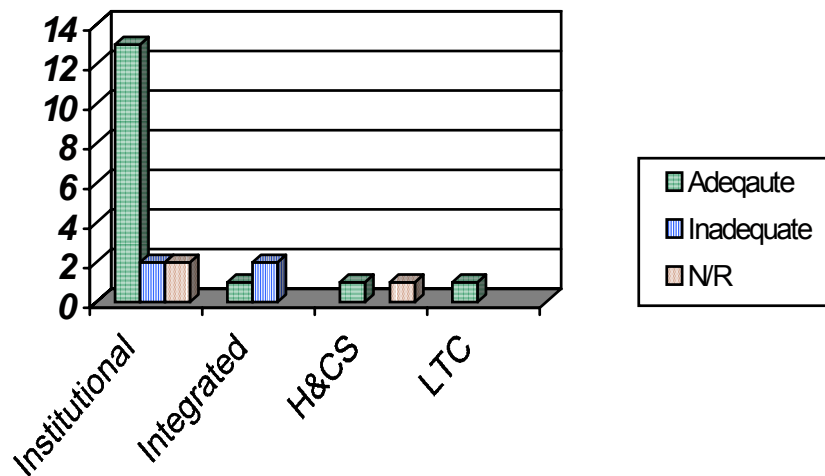


Figure 5: Length Of Orientation For Occupational Therapists



As can be seen from Figure 5, the majority of the orientation programs for OTs lasted 1 – 4 weeks. Figure 6 describes respondents feeling of adequateness of orientation program for each employment sector.

Figure 6: Adequateness Of Occupational Therapy Orientation Programs: Employers' Perceptions



Based on the job performance of recent OT graduates, the top three areas in which OTs appear to be well prepared are in their clinical skills, knowledge base and team orientation. Other strengths mentioned include documentation skills and independence. When asked whether OT graduates are adequately prepared for the current workplace, eight of 14 respondents in the institutional boards, and one respondent in long-term care responded positively. For those who did not feel that OT graduates were adequately prepared for the current workplace, educational program gaps mentioned were administration functions, specialized knowledge and skills, and clinical experience.

When asked whether OTs were able to meet future demands of the workplace, the majority agreed they were. For those who did not agree that OTs were prepared to meet the future demands, educational program gaps identified include specialized training, versatility, and business skills training.

A very slight majority of respondents agreed that there was adequate communication between the educational facility and employers of OTs. The top strategies mentioned that employers felt that educational facilities should employ to ease the transition of OT graduates to the workplace are mentoring/more clinical placements and education on the interdisciplinary team. Other strategies include outcome and workload measurement and more health related courses.

Educational Survey

A survey was completed and returned from the School of Occupational Therapy at Dalhousie University. The respondent did not feel that there was adequate communication between the educational facility and the future employers of OT graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, responses included development of mentoring programs and provision of employment preparation kits for Dalhousie faculty. Representatives from the School of OT believed that graduates are adequately

prepared to enter the workforce. When asked for the major strengths of OT graduates, areas identified were excellent field experience and the ability to develop services.

When asked about emerging practice areas that should be added/expanded as a general component of the OT program, topics listed included: (1) enabling social and policy change, (2) inclusive design and technology, (3) enabling occupation with individuals and groups, (4) reflective practice, and (5) evidence-based practice. As for future changes in the workplace that will require a specific change in the type of education received by OTs, responses were the same as identified above. The respondent did not feel that the current curriculum of the program addresses future health service issues. The areas identified of most concern were: (1) excessive caseload for holistic services, (2) lack of support for community interventions to prevent hospitalization, and (3) lack of orientation to ability vs. disease. It is not felt that there are adequate numbers of OTs being trained in the province for current and future need:

“Very limited understanding of occupational therapy potential to make more effective discharge planning, health promotion, injury prevention. There is a ‘crisis’ in the shortage of occupational therapists given the aging population and increasing concern for inclusion of people with disabilities.”

The average attrition rate from acceptance to the program to graduation is 2 students. In the OT program at Dalhousie, there are eight full-time, two part-time and an average of 10 sessional faculty. As for whether there will be a shortage of instructors in the near future, the respondent agrees that there will be. The major problem identified as being the lack of funding from the university to develop young faculty.

OT students complete 26-36 weeks of clinical throughout their program. Availability of sufficient clinical preceptors is a concern in the OT program. Steps that could be taken to increase the number of OTs willing to act as preceptors include controlling caseloads so that the preceptor has time for the student, developing a loan payback system for preceptors with student loans, and approving outreach/off-site supervision of students in outreach sites.

When asked for additional comments, the following was reported:

“The BSc(OT) program is undergoing change to address new areas of education and current health issues (starting 2001). For 2002 and beyond pre-requisites have been opened to ANY 5 1000 level university courses to attract minority students. Starting in 2002, OTA Diploma student will be granted credits towards admission to BSc(OT) to increase access through laddering up.”

Appendix E: Pharmacy

New Graduate Survey

Of the 16 surveys sent to pharmacy students who graduated from 1996 –2000, 16 were eligible, and five were returned, for a response rate of 31.3%. It should be noted that, due to the low response rate, the results reported here might not be reflective of the attitudes and opinions of the entire group.

Three of the respondents were female, and two male. The average age of respondents was 28.8 years. Four of the respondents graduated from the Pharmacy program at MUN, and the fifth graduated from the Pharmacy program at Dalhousie University in Nova Scotia. It is unclear why a Dalhousie graduate received the survey, as the NPhA provided the names and addresses of all those pharmacy graduates who were eligible to be included in the study. It is possible that this person completed a portion of the program at MUN, but graduated from Dalhousie.

Respondents reported that if they had their time back, three would choose the same program at the same institution, one would choose a different program and different institution, and the remaining respondent would choose a different program at the same institution.

Table 1: Pharmacists Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	4.2
Educational facilities (i.e. libraries, labs, computer facilities)	3.8
Student facilities (i.e. cafeterias, etc.)	3.4
Level of technology available in program	4.2
Class size	4.2
Access to program faculty members	3.8
Availability/access to required courses	4.6
Overall quality of teaching	3.7
Content of material covered in program	3.6
Skills and knowledge acquired	4.0
Balance between theory and practice	4.2
Adequate practical/clinical experience	4.2
Overall cost of the program	3.2
Availability of financial assistance	3.4
Overall experience at the educational facility	4.2
Average	3.9

As can be seen from Table 1, pharmacy graduates were most satisfied with the availability/access to required courses, and were most dissatisfied with the overall cost of the program. Overall, pharmacists were satisfied with the educational program.

Four of the five respondents felt that their educational experience adequately prepared them for the job market, although one comment included the need for more therapeutic related courses. The respondent who did not feel that the educational experience prepared them for the job market expressed the need for more focus on practical applications. All respondents felt that they were adequately prepared to meet employers' expectations. When asked if there were any specific courses/topics that were not included in the educational program but are essential to a successful transition from school to the workplace, topics mentioned include hospital pharmacy and communications. When asked whether the educational program prepared them to work effectively with other health professionals in dealing with clients and the work setting, two responded yes, and the remainder responded in the negative. Comments included more knowledge of other disciplines and more interaction with other professionals. Four respondents were planning to pursue further education, two in the form of continuing education courses and the remaining two a Ph.D. program.

All respondents were employed full time in a position related to their educational preparation, in the institutional setting. Of those, four indicated that this is their preferred employment status, and the remaining respondent indicated that they would prefer a position in the clinical area. All respondents reported that their employment status has changed since initial hire. Three respondents have moved from temporary to permanent, and the remaining two respondents have moved from part time to full time positions. All respondents reported that they received an orientation at the start of employment, with four reporting a 1-3 day orientation. The remaining respondent did not provide an orientation time frame. All respondents reported that the orientation was adequate. There were no additional overall comments from pharmacy respondents.

Employer Survey

Four (4.9%) of the responding employers indicated that they managed Pharmacy graduates as per the definition provided in the survey. Three of the four respondents were from institutional boards. Three of the respondents indicated that the orientation provided was 1 – 3 weeks and one was 8 – 12 weeks. When asked whether the orientation practices were adequate, two agreed that it was, and two disagreed.

The areas in which pharmacy graduates appear to be particularly well prepared are clinical knowledge, skills and direct patient care activities. Three of four respondents agreed that pharmacy graduates were adequately prepared for the current workplace. One educational program gap identified was clinical pharmacy specialization. The length of time it takes recent pharmacy graduates to meet employer expectations was not given by any respondents.

When asked whether the educational program adequately prepared graduates to meet the future demands of the workplace, the most frequently mentioned gap in achieving this was clinical experience. Other gaps in the educational program mentioned include knowledge base and computer skills.

Respondents did not feel that there was adequate communication between the educational facility and employers of pharmacists. Strategies that respondents felt educational facilities should employ to ease the transition of pharmacists from school to the workplace were additional work-terms and a coordinator of clerkships.

Educational Survey

A survey was completed and returned from the School of Pharmacy at MUN. In agreement with employer respondents, the education representative did not feel that there was adequate communication between the educational facility and the future employers of pharmacy graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, response included: (1) enhancing clinical practice opportunities, (2) decreasing the technical role of pharmacists, and (3) enhancing the use of technology to decrease time spent by pharmacists on non-professional tasks. Representation from the School believed that graduates are adequately prepared to enter the workforce. When asked for the major strengths of pharmacy graduates, areas identified were lots of experiential learning in the program, so new graduates are therefore well prepared for practice, excellent clinical skills and superior communication skills.

When asked about emerging practice areas that should be added/expanded as a general component of the pharmacy program, topics listed included: (1) alternative medicine, (2) community based pharmaceutical care, and (3) enhanced technologies for dispensing. As for future changes in the workplace that will require a specific change in the type of education received by pharmacy students, the respondent did not feel that the current curriculum of the program addresses future health service issues. The areas identified as of most concern were the need for: (1) greater focus on geriatric care, (2) alternative medicine, and (3) technology in the workplace. Pharmacy new graduates are prepared to assume professional roles, but when they get in the workplace they are typically restricted in scope, as they are often put into dispensing positions, rather than clinical ones. The respondent felt that this practice environment must change in order to retain graduates in this province. When asked whether there were adequate number of pharmacists being trained in the province, the response was yes and no:

“We would be graduating an adequate number of students if they chose to stay in NF. But because of professional opportunities elsewhere and superior salaries, they leave the province.”

The average attrition rate from the program from acceptance to graduation is 1 student.

In the Pharmacy program, there are 9.5 full-time, and one sessional faculty, along with 2 instructors. As for whether there will be a shortage of faculty in the near future, the respondent agrees that there will be. A strategy to address this potential shortage would be collaboration with health boards to share funding of faculty positions.

Pharmacy students complete 26-36 weeks of clinical throughout their program. Availability of sufficient clinical preceptors is a concern for the clerkship component of the program. Steps that could be taken to increase the number of pharmacists willing to act as preceptors include:

- “1. Greater cooperation at the department head level, only at some, not all health boards. Some health boards have made a very strong commitment to our program. Others have rarely taken a student.*
- 2. Consideration given to some form of remuneration to institution.*
- 3. Increased use of technicians to permit pharmacists to do clinical practice and serve as preceptors. Government to provide more funding to have more pharmacists for clinical programs.”*

When asked for additional comments, the following was reported:

“It is extremely frustrating to see many of our graduates who are the potential future leaders of the profession leaving the province. The professional practice opportunities are limited and salaries are superior away, especially in Ontario. We need to do more to ensure professional opportunities (eg. OTC roaming, reimbursement for cognitive services, brown bag reviews, etc.) are provided. Individuals will work for lower salaries if they get the professional stimulus. If they don't they leave. We see it regularly.”

Appendix F: Physiotherapy

New Graduate Survey

Of the 29 surveys sent to PT students who graduated from 1996 – 2000, 28 were eligible for inclusion (one survey was returned to sender), and seven were completed and returned, for a response rate of 25%. It should be noted that, due to the low response rate, the results reported here might not be reflective of the attitudes and opinions of the entire group.

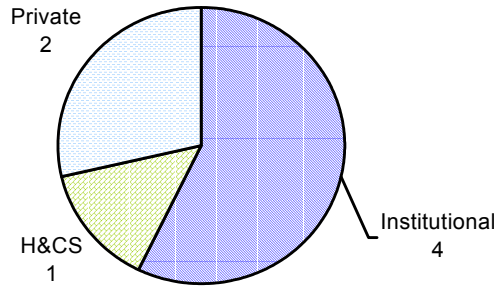
Six of the respondents were female, and one was male. The average age of respondents was 26.9 years. All respondents graduated from the PT program at Dalhousie University in Nova Scotia. Respondents reported that if they had their time back, four would choose the same program at the same institution, two would choose the same program at a different institution, and one would choose a different program at a different institution.

Table 1: Physiotherapists' Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.0
Educational facilities (i.e. libraries, labs, computer facilities)	3.9
Student facilities (i.e. cafeterias, etc.)	3.0
Level of technology available in program	3.9
Class size	4.7
Access to program faculty members	4.6
Availability/access to required courses	4.6
Overall quality of teaching	3.9
Content of material covered in program	4.0
Skills and knowledge acquired	4.1
Balance between theory and practice	4.3
Adequate practical/clinical experience	3.4
Overall cost of the program	2.7
Availability of financial assistance	2.3
Overall experience at the educational facility	4.4
Average	3.8

As can be seen from Table 1, PT graduates were most satisfied with the class size, access to faculty members, and availability/access to required courses and were most dissatisfied with the overall cost of the program and the availability of financial assistance. Overall, respondents appeared to be satisfied with the educational program. Six of the seven respondents felt that their educational experience adequately prepared them for the job market. The respondent who did not agree with this statement, commented that the program should include more education in specialty areas.

Figure 1: Practice Setting Of Physiotherapists



As can be seen in Figure 1, the majority of respondents were employed in the institutional setting. All respondents, regardless of employment setting, felt that they were adequately prepared to meet employers' expectations. When asked if there were any specific courses/topics that were not included in the educational program but are essential to a successful transition from school to the workplace, topics mentioned include pharmacology education, occupational/vocational rehabilitation, and pediatrics. When asked about foreseen changes in the profession or clients/patients that could require a different approach to education, comments included accountability for medications, higher education/continuing education, emphasis on return to work/ergonomics/workplace injuries, outcome measurement, and research. All respondents felt that their educational program adequately prepared them to work effectively with other health professional in dealing with clients and the work setting, although respondents commented on the need for more clinical experience. All respondents indicated that they were planning to further their education, five with continuing education courses, one with certificate/diploma/degree programs, and one with a Masters program.

All respondents were employed full time in a position related to their educational preparation. Four respondents report that their employment status has changed since initial hire, through movement from temporary to permanent status and 'internal movements.'

Figure 2: Length Of Orientation For Physiotherapists

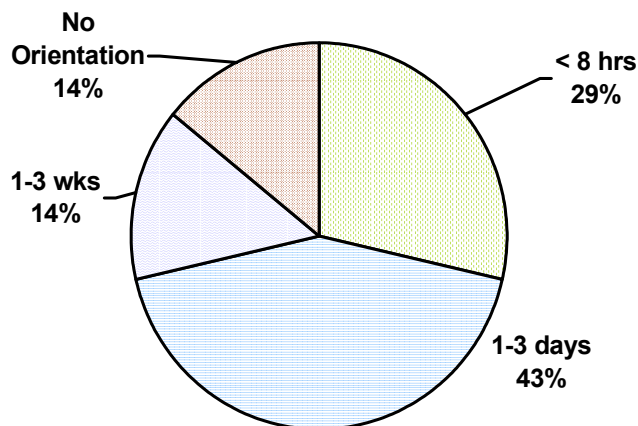


Figure 2 reveals six respondents received an orientation at the start of employment. Respondents employed in the H&CS and private settings felt that their orientation was adequate, while only half of those employed in the institutional setting agreed. Additional comments were that the cost of the program was ‘outrageous,’ that there is a need for continuing education support, and that improvements are needed in the provincial return-in-service program from Dalhousie University.

Employer Survey

Of the 82 employer respondents, 20 (24.4%) manage PTs on their division/unit. Eighty percent of the respondents were from institutional boards in the province, with the remaining respondents from integrated boards (15%) and H&CS boards (5%). Ninety-five percent of those have orientation programs in place for PTs. Orientation programs range from less than 1 week (15%), to 1 – 4 weeks (70%), to 3 months (5%). Ten percent of respondents did not give the average length of orientation. For those from the institutional boards, 60% felt that the orientation program was adequate, 15% inadequate and 5% did not respond. Two of the three respondents from the integrated boards felt the program was adequate and the respondent from the H&CS board also agreed. The top three areas in which PT graduates appear to be well prepared are with their technical/clinical skills, knowledge base, and knowledge of specific areas (i.e. medicine, orthopedics, surgery, etc.). Other areas in which PTs are well prepared include team-orientation, level of independence, acute care knowledge/skills and critical thinking skills.

Sixty-nine percent of respondents from the institutional boards felt that PTs were adequately prepared for the workplace. One respondent from an integrated board did not agree with this statement. Of those who do not agree that PTs are adequately prepared, some educational gaps identified were in specific clinical areas (i.e. intensive care, pediatrics, neurology, cardiology, obstetrics), documentation, management skills, and clinical experience. The length of time it takes PT graduates to meet employers’ expectations ranges from 3 months to 1 year.

The slight majority of respondents felt that educational programs adequately prepare PTs for the future demands of the workplace. Educational program gaps identified by the survey that prevent PTs from being adequately prepared for future demands include versatility, advocacy roles, specialty areas, time management, and professional values and behaviors.

Most respondents did not feel that there is adequate communication between the educational program and employers of PTs. Strategies that employers feel educational facilities should employ to ease the transition of PTs into the workplace include preceptorship/mentorship initiatives, increased clinical experience, and outcome/workload measurement.

Educational Survey

A survey was completed and returned from the School of Physiotherapy at Dalhousie University. In contradiction to employer respondents, the educational representative felt that there was adequate communication between the educational facility and the future employers of PT graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, similar to employers', responses included increasing the number of clinical placements so that students would understand the work site and mentoring of new staff by senior staff. Representatives from the School of PT believed that graduates are adequately prepared to enter the workforce. When asked for the major strengths of PT graduates, areas identified were clinically well-rounded, good research background and a strong sense of professionalism.

When asked about emerging practice areas that should be added/expanded as a general component of the PT program, topics listed included: (1) a PT as a consultant, and (2) home and community care. As for future changes in the workplace that will require a specific change in the type of education received by PTs, responses were an increased number of private practice PTs, a decreased use of PTs in the hospital setting and earlier discharge leading to increase care in the community. The educational representative did not feel that the current curriculum of the program addressed future health service issues. One area of concern identified was community based care. It is not felt that there are adequate numbers of PTs being trained in the province for current and future need. The average attrition rate from the program from acceptance to graduation is 2 students.

In the PT program at Dalhousie, there are 10 full-time (one is limited term), one part-time and two sessional faculty. As for whether there will be a shortage of faculty in the near future, the respondent agrees that there will be, and that there is a need to encourage post-graduates education at the MSc and PhD levels.

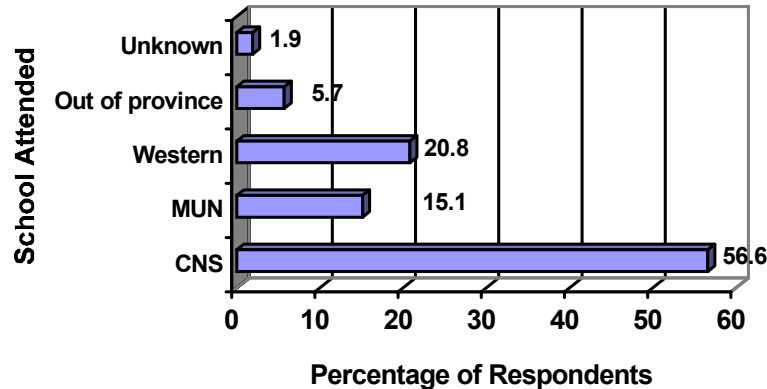
PT students complete 26-36 weeks of clinical throughout their program. Availability of sufficient clinical preceptors is a concern in the PT program. Steps suggested to improve the numbers of PTs willing to act as preceptors include improving staffing levels in acute care areas and increasing funding for preceptor education and support.

Appendix G: Registered Nurse

New Graduate Survey

Of the 142 surveys sent to RNs, 126 were eligible for inclusion in the study (16 surveys were returned due to incorrect addresses), and 53 were completed and returned, for a response rate of 42.1%. The average age of respondents is 24.1 years, with 98.1% identifying themselves as female.

Figure 1: School Attended By Registered Nurse Respondents



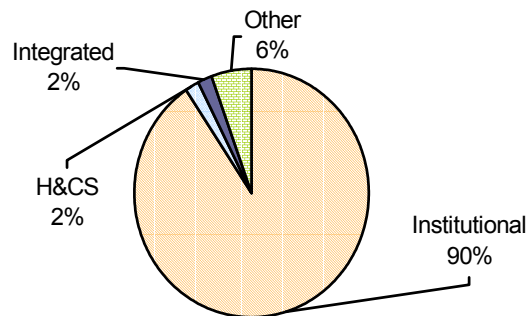
As can be seen in Figure 1, the majority of respondents graduated from the BN (Collaborative) program at the Centre for Nursing Studies, who proportionately graduate the highest number of BN students in the province. All respondents graduated from a BN program. There were respondents from out of the province due to the fact that the mailing list was obtained from the same list of graduates who received a provincial bursary. Included in this list were names of BN graduates who completed programs outside the province. The majority of respondents (86.8%) are planning to further their education in the form of continuing education courses (22.6%), certificate/degree/diploma program (11.3%), or a Masters program (50.9%). Remaining respondents did not indicate how they would further pursue their education.

Table 1: Registered Nurses' Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	4.4
Educational facilities (i.e. libraries, labs, computer facilities)	3.6
Student facilities (i.e. cafeterias, etc.)	3.3
Level of technology available in program	3.7
Class size	4.1
Access to program faculty members	4.3
Availability/access to required courses	4.1
Overall quality of teaching	3.9
Content of material covered in program	3.8
Skills and knowledge acquired	3.8
Balance between theory and practice	3.1
Adequate practical/clinical experience	2.5
Overall cost of the program	1.6
Availability of financial assistance	2.8
Overall experience at the educational facility	3.9
Overall Average	3.5

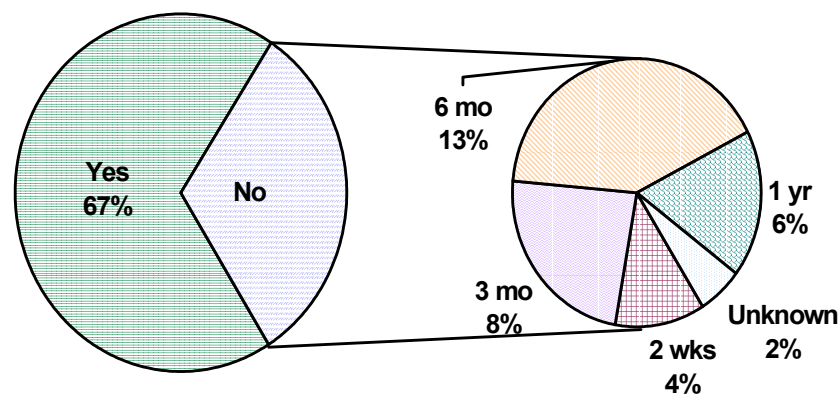
As can be seen in Table 1, overall, RN respondents were satisfied with their educational program. Respondents were most satisfied with the availability/access to the program and the access to faculty members, and least satisfied with the overall cost of the program and adequateness of clinical/practical experience. When asked whether the educational experience adequately prepared them for the job market, 56.6% of respondents agreed that it did. Of those who did not feel the program prepared them for the job market, 35.8% felt that more clinical experience was necessary, which corresponds to the dissatisfaction with adequate practical/clinical experience seen in Table 1.

Figure 2: Practice Setting Of Registered Nurse Respondents



As can be seen in Figure 2, the large majority of respondents were employed in the institutional setting. At the time of the survey, 90.6% of respondents were working in a full-time position, 5.7% in a casual position, and 3.8% in a part-time position, all related to their educational experience. When asked whether this was the preferred employment status, 84.9% indicated it was. For those who were not employed in their preferred status, most respondents indicated that they would prefer full-time or full-time permanent positions. Other comments focused on an area that they would prefer to be working rather than the status of the position.

Figure 3: Registered Nurses' Preparedness And Time Taken To Meet Employers' Expectations



As can be seen in Figure 3, the majority of respondents (67%) felt that they were adequately prepared to meet employers' expectations. When examined by employment setting it was found that 71% of those employed in the institutional setting, and all of those employed in the integrated setting felt that they were adequately prepared to meet employers' expectations. The majority of those employed in the H&CS and other settings did not feel that they were adequately prepared to meet employers' expectations. Of those who did not agree they were adequately prepared, the length of time it took to meet these expectations ranged from 2 weeks (4%) to 1 year (6%). When asked whether there were specific topics/courses not included in the educational program that were important to a successful transition from school to the workplace, the top five responses were: (1) learning additional nursing skills, (2) education on nursing politics and environment, (3) clinical experience, (4) clinical experience in specialty areas, and (5) work relationships. Some specific comments were:

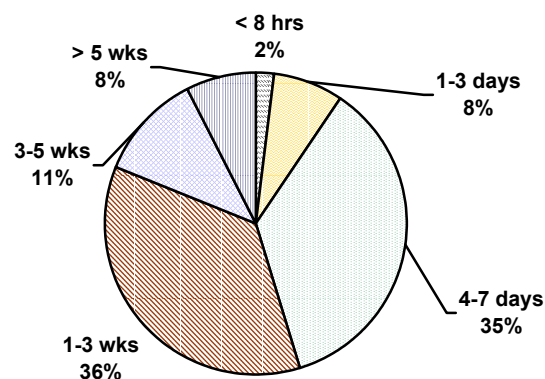
“The transition from student to nurse was quite a shock. In school you are not prepared for real life with working under cost restraints etc. things are done very differently in the hospital as compared to in a learning lab.”

“Interaction with other members of the health care team. Most important/essential topics/courses were addressed in my educational program, however, most were very limited in detail.”

“Maybe session or full day on resume writing, interview skills and questions asked in an interview. Definitely a course all about nurses union, benefits, annual leave, overtime, basic contract material. I think is very important to know before starting work.”

“..the program was very comprehensive and provided flexibility and personalized education/training.”

Figure 4: Length Of Orientation For Registered Nurses



All respondents reported that they had received an orientation at the start of employment in their position. As can be seen from Figure 4, orientation sessions ranged from less than eight hours to greater than five weeks. Just over half of those respondents (56%) employed in the institutional setting and all those employed in the other category felt that the orientation they received was adequate. All respondents employed in the integrated and H&CS settings did not feel that the orientation was adequate. The majority of those who did not feel that their orientation was adequate commented that it was minimal or not long enough. Other comments included:

“My orientation was sporadic. Due to the limited staff at times, sometimes I was counted as staff (core) even though my orientation to the unit was not complete.”

“Not enough time to feel comfortable with routines, general area, policies, etc.”

“Needed more time - felt pushed into things without adequate preparation.”

Most respondents (60.4%) reported that their employment status had not changed since initial hire. Of those whose employment status did change, 22.6% changed from float to permanent positions. Other changes include, casual to part-time (3.8%), temporary to permanent (9.4%), and full-time to casual (3.8%).

When asked if the RNs had their time back, 62.3% reported that they would choose the same program at the same institution, 15.1% a different program at a different institution, 9.4% a different program at the same institution, and 3.8% indicated other. The top four responses for foreseen changes to the profession or clients requiring a different approach to education were an increase in education, specialty skills/areas, aging/acuity issues, and clinical experiences. Some specific comments included:

“There is definitely a change in the acuity of care for patients. Cancer is prevalent in each and every unit. A shift in education needs to be made to accommodate this increase in acuity.”

“Aging population, more focus in long-term care, education re the same. Focus towards health promotion rather than acute illness.”

Other areas for comment were home care/community health, health promotion, and increased responsibility. When asked whether the educational program prepared them to work effectively with other health professional in dealing with clients and the work setting, 73.6% agreed. The remainder of respondents indicated that more interaction with other health professional was needed in the program.

In the general comments section, a number of respondents commented on the need for more clinical experience in the program. Other comments made include:

“As previously mentioned, program included too much theory and very little practical experience/opportunity to interact with other health professionals. Theories taught in substitution for interaction with health care professional were ineffective when put to use and impractical.”

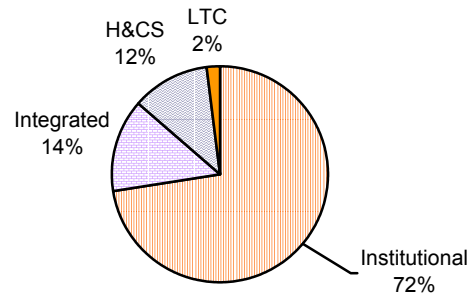
“I have spent much of the last year feeling disillusioned, disheartened and disappointed with my choice to be a nurse. I felt that I could make a difference. I did not realize what a thankless profession this could be. Patients are frustrated with health care issues which is taken out on nurses. Doctors aren't appreciative of the work nurses do. Worse of all, nurses don't recognize each other. Moral is low, job dissatisfaction is high therefore animosity occurs between staff.”

“The MUN nursing program was an excellent educational experience. I felt and still feel very prepared to work in my chosen field. The program is very comprehensive and ensures that one is adequately prepared to enter the work force.”

Employer Survey

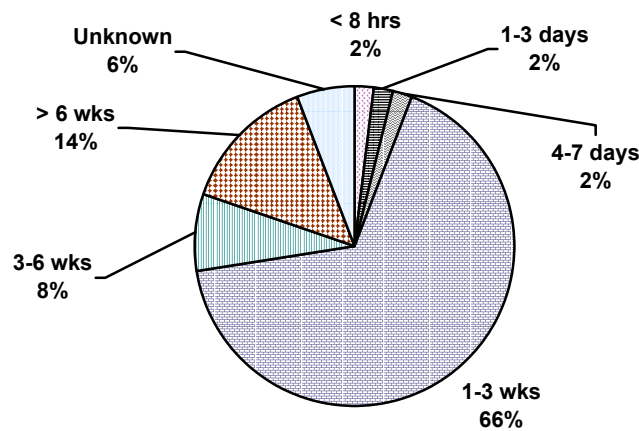
Of the total number of employer responses, 62.2% report that they have RNs on staff within their division/unit.

Figure 5: Practice Setting Of Registered Nurse Employers'



As can be seen in Figure 5, the majority of respondents were from institutional boards, with the remaining respondents from either integrated, H&CS or long-term care boards. All report that there is an orientation program in place for RNs.

Figure 6: Length Of Orientation For Registered Nurses



As can be seen from Figure 6, the majority of employers reported that RNs receive 1 – 3 weeks of orientation at the start of their employment. Sixty-five percent of those from the institutional boards and 86% of those from the integrated boards agree that the orientation program is sufficient. All of the respondents from the H&CS boards agree the orientation is sufficient while none of the respondents from the long-term care board agree. This is partially contradictory to new graduate responses, where no new graduates employed in an integrated or H&CS board felt that their orientation was adequate. New graduate and employer responses from the institutional setting were similar on their perceptions of orientation adequateness.

The top three areas, which respondents have indicated that RNs are particularly well prepared, include theory/knowledge base, clinical/assessment skills, and independence.

Other areas mentioned are knowledge of community issues, communication skills, openness to new ideas and critical thinking.

The majority of those who responded do not feel that RNs are adequately prepared for the current workplace. One exception is the response from the H&CS boards, where 67% (4) of respondents do feel that RNs are adequately prepared for the workplace. For the institutional, integrated and long-term care boards, 31%, 17% and 0%, respectively, believe that RNs are adequately prepared. Again, this is contradictory to new graduate respondents, where the majority of those in the institutional and integrated settings felt that they were adequately prepared to meet employers' expectations, and for the 2% of respondents employed in H&CS, they did not feel adequately prepared to meet expectations. The top three educational program gaps identified by employers were experience/skills development, time management, and application of knowledge. Other gaps identified include organizational skills, professionalism, and confidence level. The majority of respondents indicated that it took 6 months to 1 year before new RN graduates were able to meet their expectations.

As with new graduates preparedness to meet the demands of the current workplace, the majority of respondents indicated that RN educational programs do not adequately prepare graduates to meet the future demands of the workplace. The top three educational gaps identified are clinical experience/skills, coordinating care/leadership, and teamwork. Other areas mentioned include professionalism, home care, and application of knowledge.

About half of respondents agree that there is adequate communication between educational facilities and employers of RNs. When asked to indicate the top three strategies that educational facilities should employ to ease the transition of new RN graduates from school to the workplace, the top three comments included increased preceptorship/mentorship, acute care experience, and an increase in clinical experience. Specific comments include:

“More clinical time. The grads are coming out now scared and frightened to be left alone. By offering more clinical they will boost their confidence.”

“1. Larger variety of clinical practical experiences in practice 2. Increase understanding of the roles of other professionals and working on teams 3. Outcome measurement 4. Longer, better orientation and more intensive.”

“Clinical faculty with familiarity in the areas where students to do clinical sessions with employees especially managers/professional practice coordinators.”

Educational Survey

A survey was sent and responses were received from three Directors of the provincial BN (Collaborative) program. Two of the three respondents felt that there was adequate communication between the school and the future public sector employers of BN

graduates. When asked whether there were any strategies that employers' could utilize to ease the new graduates' transition to the workplace, the top responses were longer/adequate orientations, and assignment consistency. Other responses included hiring recent graduates in permanent positions, and developing mentoring programs. All of the BN program representatives felt that the program produced graduates who were adequately prepared to enter the workforce. When asked for the major strengths of BN graduates, areas and skills identified were critical thinking, theory/knowledge base, and commitment to learning and professional attitude.

When asked about emerging practice areas that should be added/expanded as a general component of the BN program, areas identified were gerontology, nursing informatics, best practice guidelines, primary health care and worklife issues. As for future changes in the workplace that will require a specific change in the type of education received by RNs, the most common responses were around the development of specialized skills (e.g. maternal/child care, acute care, gerontology). Other comments included an increased emphasis on home care, and skill competencies. All respondents felt that the curriculum of the BN program addresses future health service issues. All respondents also agreed that there were not an adequate numbers of BNs being trained in the province to meet current and future need. Of the 220 entry students in 1996, 163 completed the program within the four-year program period. Some students from this class, who were delayed in completing academic requirements graduated with subsequent classes.

In the provincial BN program, there are 74 full-time, 16 part-time and 12 sessional faculty. As for whether there will be a shortage of faculty in the near future, two out of three respondents agree that there will be. Reasons cited include faculty retirements and a potential increase in the number of enrollments in the BN program.

BN students complete more than 36 weeks of clinical throughout the program. All respondents indicate that the recruitment of sufficient clinical preceptors is a concern. Strategies identified to help with preceptor recruitment include compensating RNs for taking on the preceptor role, support of preceptors, and addressing workload issues.

When asked for additional comments, the following was reported:

"Listen to new grads, all preparation cannot be done by educational programs, why do we expect our new nurses to be at competent level, how do we get staff people to know nurses are not 100% ready on day 1?"

"With the hiring of our new BN graduates, spring 2000' came feedback that they were being floated to other wards where there were vacancies. This was very unsettling for them and made the transition very difficult and created undue anxiety which impacted on their level of confidence. New graduates need time to feel a sense of confidence in the workplace. The health system needs to recognize this if we want to recruit and retain new graduates in our province. Experienced/seasoned nurses can find floating to unfamiliar areas stressful and even more so for the inexperienced new graduate."

Appendix H: Respiratory Therapy

New Graduate Survey

Of the 51 surveys sent to RT students who graduated from 1996 –2000, 47 were eligible for inclusion in the study, and 13 were completed and returned, for a response was of 27.7%. Eighty-five percent of respondents were female, with the average age of respondents being 27.1 years. All respondents graduated from the RT program at College of the North Atlantic. Respondents reported that if they had their time back, 76.9% would choose the same program at the same institution, 7.7% would choose the same program at a different institution, 7.7% would choose a different program at the same institution, and 7.7% would choose a different program at a different institution.

Table 1: Respiratory Therapists’ Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	2.6
Educational facilities (i.e. libraries, labs, computer facilities)	2.6
Student facilities (i.e. cafeterias, etc.)	2.6
Level of technology available in program	3.5
Class size	4.7
Access to program faculty members	4.5
Availability/access to required courses	4.5
Overall quality of teaching	4.1
Content of material covered in program	4.4
Skills and knowledge acquired	4.5
Balance between theory and practice	4.4
Adequate practical/clinical experience	4.4
Overall cost of the program	3.5
Availability of financial assistance	3.5
Overall experience at the educational facility	3.9
Overall Average	3.8

As can be seen from Table 1, RT graduates were most satisfied with class size, access to program faculty members, availability/access to required courses, and the skills and knowledge acquired, and were most dissatisfied with the availability/access to the program, educational and student facilities. Overall, respondents appear to be satisfied with the educational program.

When asked about foreseen changes in the profession or clients/patients that could required a different approach to education, comments included higher education, a degree program and patient education skills. All respondents felt that their educational program adequately prepared them to work effectively with other health professionals in dealing with clients and the work setting, although respondents commented on the need for more

clinical experience. The majority of respondents (84.6%) indicated that they are planning to further their education, 46.1% with certificate/diploma/degree program, and 38.5% with continuing education courses.

Figure 1: Practice Setting Of Respiratory Therapists

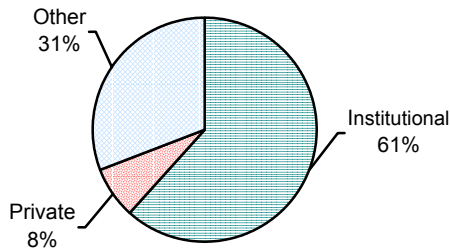
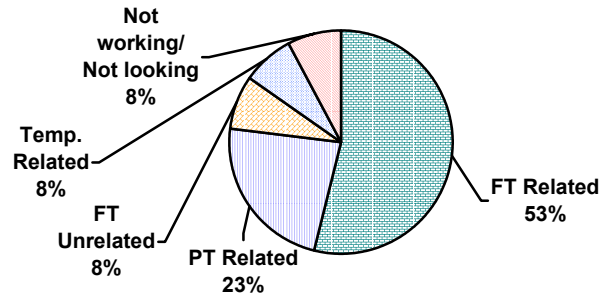


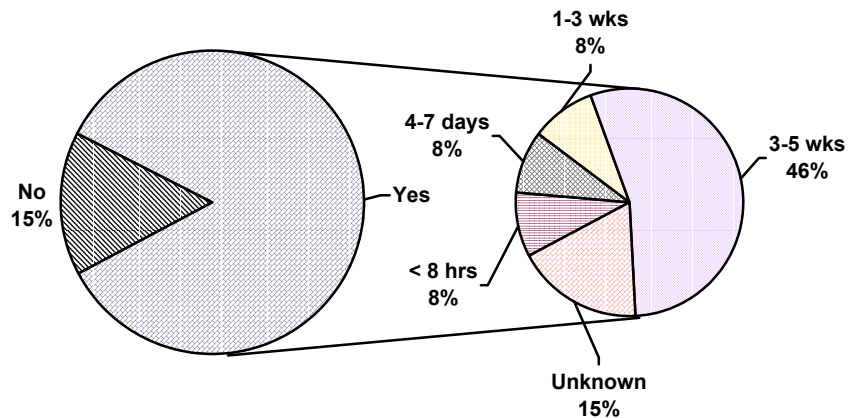
Figure 2: Respiratory Therapists Employment Status



As can be seen from Figure 1, the majority of RTs were employed in the institutional setting. Figure 2 shows that just over half of respondents were working full time in positions related to their educational preparation. Seventy percent of respondents were working in their preferred employment status, while the remaining 30% were not satisfied with their employment status, citing reasons such as, ‘prefer full time permanent,’ and ‘prefer higher salary.’ Fifty-four percent of respondents reported that their employment status had changed since initial hire.

All respondents felt that their educational experience adequately prepared them for the job market, and that they were adequately prepared to meet employers’ expectations. When asked of there were any specific courses/topics that were not included in the educational program but are essential to a successful transition from school to the workplace, topics mentioned include pharmacology and homecare education.

Figure 3: Length Of Orientation For Respiratory Therapists



As can be seen in Figure 3, 85% of respondents reported that they received an orientation at the start of employment, ranging from < 8 hours to 3-5 weeks. Seventy-five percent of

respondents employed in the institutional setting reported that their orientation was adequate, while the remainder of the institutional employees and those employed in the private sector did not agree. Comments included that the orientation was not long enough and that during the orientation period, instead of receiving orientation, they were used as an extra staff person to do extra workload.

Additional comments added at the end of the survey include those around the lack of permanent positions in RT, and the need for recruitment and promotion of the profession, and that the program is excellent in all areas.

Employer Survey

Of the 82 employer respondents, five indicated that they have RTs on staff within their division/unit. All respondents were from institutional boards within the province. All respondents indicated that they have orientation programs in place for RTs. Orientation programs range from 1-3 weeks (2 respondents) to 3-4 weeks (1 respondent) to 4-6 weeks (1 respondent) to 8-12 weeks (1 respondent). As with the majority of new graduates employed in the institutional setting, four of the five employer respondents agree that their current orientation practices are adequate. The remaining respondent did not answer to the question.

When asked the areas in which RTs appear to be especially well prepared, the top three areas identified were clinical/technical skills, preparation for specialty clinical areas and knowledge base. Respondents were split on their feeling as to whether RTs were adequately prepared for the current workplace. Educational program gaps identified by respondents are asthma education, independence, knowledge base, rural respiratory therapy and teamwork. Respondents indicated that it took about 6 months for a recent RT graduate to meet their expectations.

Respondents were also split on whether RT graduates were adequately prepared to meet the future demands of the workplace. Program gaps identified were similar to those noted in the past paragraph and include independence, a defined set of skills and teamwork. Half of respondents agree that there is sufficient communication between the educational facilities and employers of RTs. Strategies suggested to ease the transition of RT graduates from school to the workplace includes building on teamwork skills, increased independence, patient teaching, rotations in rural areas and workload measurement.

Educational Survey

A survey was sent to the RT program at College of the North Atlantic. The responding representative felt that there was adequate communication between the school and the future public sector employers of RT graduates. When asked whether there were any strategies that employers' could employ to ease the new graduates' transition to the workplace, the respondent indicated that because there was such a strong clinical component in the program's curriculum, the new graduates are very prepared to enter the

workforce. The program representative felt that the program produced graduates who were adequately prepared to enter the workforce. Identified strengths of the program's graduates include their work readiness, maturity and work ethic and the fact that the program is accredited.

One area identified as a component that should be added to the general curriculum is anesthesia technology. The program respondent did not feel that, at the time of the survey, that there were any future changes in the workplace that would require a specific change in the education that RTs receive, but noted the following:

“Current rifts within this profession at national level have resulted in a discontinuation of CMA national accreditation. Lack of a true national profile and CSRT introducing their own accreditation of which Ontario and Quebec with 70% of therapists, will not be involved. The profession is in the risk of fracturing and students/graduates are caught in the middle.”

It was felt that adequate numbers of RTs were being trained in the province to meet current and future need, and that the curriculum of the program addresses future health service issues. The average attrition rate from the program from acceptance to graduation is zero.

Currently there are five full-time instructors in the RT program. As for whether there will be a shortage of instructor in the near future, the respondent agreed that there will be and that the main issue is salaries, “(s)alaries for instructors are over \$10,000 less than technologists”.

RT students complete more than 36 weeks of clinical throughout the program. There is a concern about the availability of clinical preceptors to accommodate students. As is the reported solution for most educational programs, one step identified to increase the number of preceptors is to provide compensation to the preceptor for taking on the additional role.

When asked for additional comments, the following was reported:

“The practice of offering graduates "casual" or temporary employment encourages graduates to leave the province for full-time, better paying positions.”

Appendix I: Social Work

New Graduate Survey

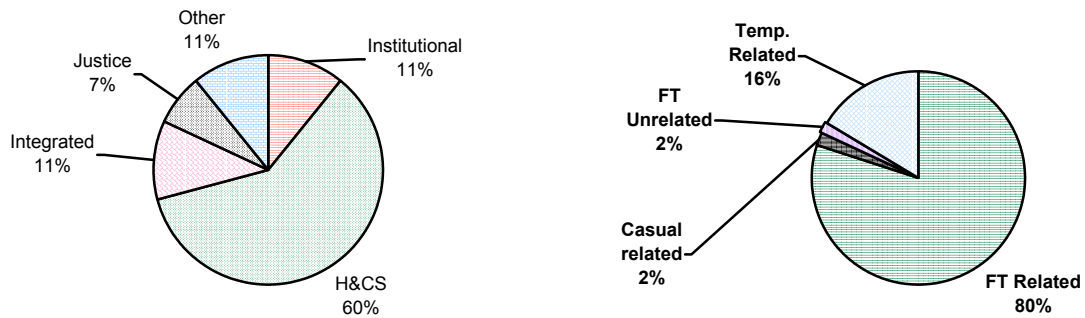
Fifty-five of the 155 surveys sent to social work students who graduated from 1996 – 2000 were returned, for a response rate of 35.5%. Eighty-four percent of respondents were female, 14.5% male, and 1.8% unknown. The average age of respondents was 29.9 years. Ninety-five percent of respondents graduated from the School of Social Work at MUN, 1.8% from the University of Toronto, 1.8% from Wilfred Laurier University, and 1.8% unknown. Respondents reported that if they had their time back, 90.9% would choose the same program at the same institution, 3.6% would choose a different program at the same institution, 1.8% would choose a different program at a different institution, and 3.6% provided no response.

Table 1: Social Workers Satisfaction With The Educational Program

Statement	Mean
Availability/access to the program (i.e. wait lists, etc.)	3.4
Educational facilities (i.e. libraries, labs, computer facilities)	3.5
Student facilities (i.e. cafeterias, etc.)	3.2
Level of technology available in program	3.2
Class size	4.3
Access to program faculty members	4.1
Availability/access to required courses	3.9
Overall quality of teaching	3.7
Content of material covered in program	3.5
Skills and knowledge acquired	3.7
Balance between theory and practice	3.5
Adequate practical/clinical experience	3.6
Overall cost of the program	2.5
Availability of financial assistance	2.7
Overall experience at the educational facility	3.9
Overall Average	3.5

As can be seen from Table 1, social work graduates were most satisfied with class size, and access to program faculty members, and were most dissatisfied with the overall cost of the program. Overall, respondents appear to be satisfied with the educational program.

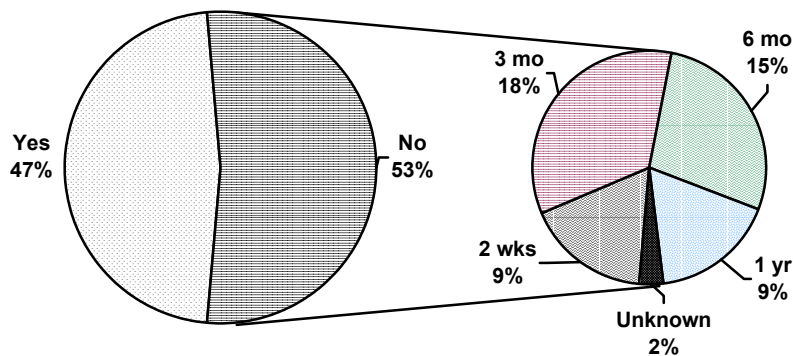
Figure 1: Practice Setting Of Social Workers Figure 2: Social Workers Employment Status



As can be seen in Figure 1, the majority of respondents were employed in the H&CS boards. As can be seen in Figure 2, 80% of respondents were employed in a full time position related to their educational experience. Only 2% of respondents were working in a position unrelated to the educational experience. Seventy-five percent of these were employed in their preferred employment status. For those who were not, the majority of comments refer to a preference for a permanent position. Other comments include, *'prefer employment related to my education,' 'too much gap between call back,'* and *'prefer another area.'* Fifty-six percent of respondents reported that their employment status had changed since initial hire, including movement from temporary or casual to permanent positions, internal movement, and part-time to full time.

Sixty percent of respondents felt that their educational experience adequately prepared them for the job market. The 40% that did not agree commented on the need for more practical experience, more specific training, and insufficient child welfare experience.

Figure 3: Social Workers Preparedness And Time Taken To Meet Employers' Expectations



As can be seen from Figure 3, just over half of respondents (52.7%) did not feel that they were adequately prepared to meet employers' expectations. The time it took to meet

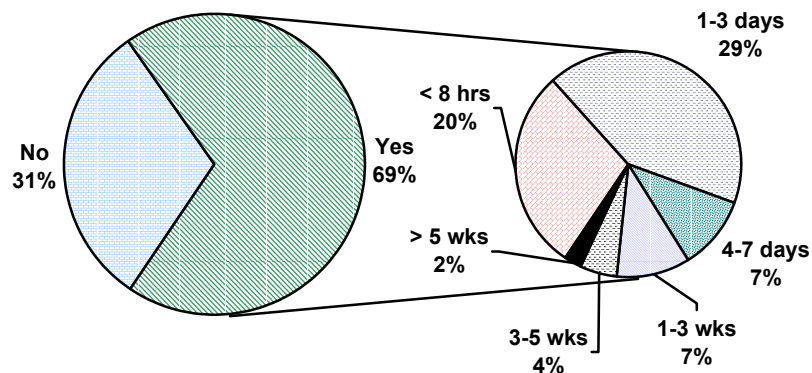
these expectations ranged from 2 weeks to 1 year. When considering the practice setting, it was found that only 48% of those employed in H&CS, 33% of those employed in institutional, and 50% of those employed in integrated settings felt that they were adequately prepared to meet employers' expectations. However, all of those employed in the justice setting felt adequately prepared to meet employers' expectations. When asked if there were any specific topics/courses not included in the educational program, that are important to a successful transition from school to the workplace, the top five areas/topics mentioned included: (1) child welfare, (2) clinical experience, (3) legal issues and the justice system, (4) counseling courses, and (5) introduction to different areas of social work. Some specific comments included:

“Because the majority of social work positions are in child welfare, there should be a mini-orientation to the actual work for all students. This would benefit the employer in the long term, as well as the student.”

“Would like to have more practical emphasis in some areas and less in theory. Would like to have the opportunity to meet social workers in different positions during program. Perhaps to talk about different program areas and different interventions for different clients.”

Examples of other areas mentioned include dealing with non-voluntary clients, cultural issues, financial issues, and family issues, to name a few. When asked about foreseen changes in the profession or clients/patients that could require a different approach to education, the top responses included an increase in clinical courses/work, group work, and an increase in family and rehabilitative services. Other responses included mental health, approaches to counseling, and community issues. The majority of respondents (74.5%) agreed that their educational program adequately prepared them to work effectively with other health professionals in dealing with clients and the work setting. The comments of those who did not agree included the need for increased exposure to other disciplines, that the program lacks interdisciplinary readiness, and more practical education is necessary. The majority of respondents (83.6%) indicated that they are planning to further their education, 5.5% with certificate/diploma/degree program, 3.6% with continuing education courses, and a high proportion (67.3%) in the form of a Masters. Six percent of respondents did not indicate what type of further education they planned to pursue.

Figure 4: Length Of Orientation For Social Workers



As can be seen in Figure 4, 69% of respondents reported receiving an orientation at the start of their employment. Orientation programs ranged from less than 8 hours to over 5 weeks. The majority of those employed in an institutional board and with justice, 83% and 100% respectively, felt that their orientation was adequate. Only 32% of those employed in the H&CS setting and 29% of those employed in an integrated setting agreed. Those who did not agree that the orientation was adequate cited reasons such as there was no orientation to the position, orientation was minimal and too general, and there was little in the way of supervision.

The top three themes identified in the additional comments at the end of the survey are specific training, human resource issues, and comments on the program itself. Some specific comments include:

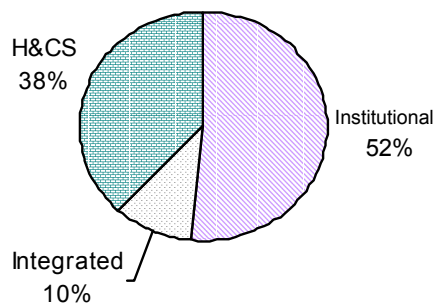
“There is much negativity within this profession. Morale is low, caseloads are too high, stress is high as well. Social workers in child welfare are not feeling good about the work as if it is less than other programs, ie. mental health addictions.”

“Memorial has a great program that is well recognized. No matter what your degree there is a transition time from school work to your actual job. I believe I was prepared.”

Employer Survey

Of the total number of employer survey respondents, 29 (35.4%) have social workers on staff in their division/unit. As can be seen from Figure 5 below, a slight majority of respondents were from the institutional boards.

Figure 5: Practice Setting Of Social Work Employers'



Ninety percent of respondents have orientation programs in place for social workers, ranging from 1-3 days (6.9%) to 1-4 weeks (69.0%) to 4-6 weeks (3.4%). Twenty-one percent of respondents did not indicate the average length of their orientation. Sixty percent of respondents from the institutional boards agreed that their current orientation practices were sufficient, 13% disagreed and 27% did not respond. Only 18% of respondents from the H&CS boards felt that their orientation practices were adequate, with 64% responding that they were not. Of those respondents from the integrated boards, 33% felt the orientation practices were adequate, and 67% did not respond.

The top three areas in which recent social work graduates appear to be particularly well prepared are knowledge base/theory, assessment skills, and counseling/interviewing skills. Other areas mentioned include practice/clinical skills, team orientation and community awareness.

The majority of respondents did not feel that recent social work graduates were well prepared for the current workplace. Only 38% of those from the institutional boards, 36% from the H&CS boards and no respondents from the integrated boards felt that graduates were adequately prepared. Areas reported in which there appear to be gaps in the educational programs include child and youth issues, legal proceedings, documentation, interdisciplinary approach/roles, and assessment. Employers report that it takes most graduates 6 months to meet employers' expectations, but some report that it takes up to 1 year.

Perceptions of social work graduates preparation to meet the future demands of the workplace appear to be split amongst respondents. There is little consensus between respondents as to the educational program gaps that may be the cause of lack of preparation for future issues, but areas mentioned include clinical experience, child and youth issues, versatility, and intervention.

Respondents were also split on whether there is adequate communication between educational facilities and employers of social workers. When asked for the top three strategies that educational facilities should employ to ease the transition of new social work graduates to the workplace, the top three responses were increased communication

between schools and employers, increased preceptorship/clinical placements, and education on the interdisciplinary team/roles. Other comments include more mentoring/supervision and specialty education.

Educational Survey

A survey was sent to the School of Social Work at MUN, but at the time of this report, the completed survey had not been received.

Appendix J: Medical Radiography Technology

New Graduate Survey

Two of the 29 surveys disseminated to recent graduates were returned, a response rate of 6.9%. The low response rate may be due to the fact that addresses used to send the surveys out to MRT graduates were those provided from the College of the North Atlantic. These were the addresses that the graduates would have had while attending the College, and may have been outdated at the time the survey was sent. These were the only addresses available at the time of the survey. Due to such a low response rate, the summary of responses would not be a representative sample of responses of the group as a whole, and will therefore not be reported here.

Employer Survey

Of the total number of respondents, 10 indicated that they had MRTs on staff within their division/unit, six from institutional boards and four from integrated boards. Nine of the 10 have an orientation program in place, ranging from 1-2 weeks (1), 1-3 weeks (6), 1-4 weeks (1), and 3-5 weeks (1). All respondents from the integrated boards felt that their orientation practices were adequate, while 83% of those from the institutional boards agreed. The remaining respondents from the institutional boards did not comment on the question.

The top three areas in which MRTs appear to be particularly well prepared are in technical expertise, patient care and in their knowledge base. Two of the four integrated board respondents (two did not respond to the question) agreed that MRTs are adequately prepared for the current workplace. Three of five respondents from institutional boards also indicated that MRTs were adequately prepared. Potential educational program gaps identified by those who do not agree that technologists are adequately prepared include clinical and computer skills and knowledge of equipment. Respondents indicate that it can take 3 to 6 months for a recent MRT graduate to become prepared to meet employers expectations. The majority of employer respondents agree that MRTs are prepared to meet the future demands of the workplace. For those who do not agree, identified program gaps include computer skills and technology theory.

Respondents were split on whether there is adequate communication between educational facilities and employers of MRTs, however the majority of respondents who supervise/manage MRTs did not comment. Strategies listed that respondents feel educational facilities should employ to ease the transition of graduates to the workplace include additional clinical experience/training in specialized procedures and acute care, equipment knowledge, exposure to complicated cases and time management.

Educational Survey

A survey was sent to the Medical Radiography Technology program at College of the North Atlantic. The responding representative felt that there was adequate communication between the school and the future public sector employers of MRT graduates. When asked whether there were any strategies that employers' could employ

to ease the new graduates' transition to the workplace, the respondent indicated that because there was such a strong clinical component in the program's curriculum, the new graduates are very prepared to enter the workforce. The program representative felt that the program produced graduates who were adequately prepared to enter the workforce. Identified strengths of the program's graduates include the fact that the committed faculty and strong clinical components lead to 'work-ready' graduates and that the program is accredited.

Emerging practice areas/topics that should be added as a general component of the program include the picture archiving and communication system (PACS), digital imaging, and increased exposure to CT scanning and MRI as a clinical component. As for future changes in the workplace that will require a specific change in the types/combinations of education received by MRTs, the following was reported:

“Effective Jan 2005 a degree will be required in order to write CAMRT examinations. Graduates will be expecting higher salaries. There will be no graduates in June 2005 when program expands from 3-4.5 years. This does not appear to have been discussed with employers as to need.”

It was felt that adequate numbers of MRTs were being trained in the province to meet current and future need. The average attrition rate from the program from acceptance to graduation is zero. The program respondent does not feel that the curriculum of the program addresses future health service issues. The areas identified of most concern were the need for more hands on training which will be required in high tech areas, but feels that the College produces excellent general MRTs.

Currently there are five full-time instructors in the MRT program. As for whether there will be a shortage of instructor in the near future, the respondent agreed that there would be.

MRT students complete more than 36 weeks of clinical throughout the program. There is no concern about the availability of clinical preceptors to accommodate students in this program. The Health Care Corporation of St. John's (HCCSJ) funds preceptor/clinical positions, and remains committed to the program.

When asked for additional comments, the following was reported:

“The practice of offering graduates "casual" or temporary employment encourages graduates to leave the province for full-time, better paying positions.”

Appendix K: Glossary

<i>Abbreviation</i>	<i>Term</i>
LPN	Licensed Practical Nurse
MLT	Medical Laboratory Technologist
MRT	Medical Radiation Technologist
OT	Occupational Therapist
PH	Pharmacist
PT	Physiotherapist
RN	Registered Nurse
RT	Respiratory Therapist
SW	Social Worker
US	Diagnostic Medical Sonographer
CONA	College of the North Atlantic
MUN	Memorial University of Newfoundland
CNS	Centre For Nursing Studies
ARNNL	Association of Registered Nurses of Newfoundland & Labrador
CLPN	Council for Licensed Practical Nurses
NLASW	Newfoundland and Labrador Association of Social Workers
NPhA	Newfoundland Pharmacy Association
NLAOT	Newfoundland and Labrador Association of Occupational Therapists
NLCP	Newfoundland and Labrador College of Physiotherapists
NLSLT	Newfoundland and Labrador Society of Laboratory Technologists
NAMRT	Newfoundland Association of Medical Radiation Technologists
NLART	Newfoundland and Labrador Association of Respiratory Therapists
LTC	Long Term Care
H&CS	Health and Community Services
NLHBA	Newfoundland and Labrador Health Boards Association