Palliative Care Front-Line Education

Evaluation Report

March 2005

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We thank the District Health Authorities and Community Health Boards, Palliative Care Services/Programs and District Educational Advisory Committees for their support, advice and encouragement throughout the development and implementation of the course.

We are grateful to those who assumed the role of District Education Faculty. They willingly gave up time to share their expertise and provided excellent teaching to palliative care front-line staff throughout the province.

We cannot express enough appreciation to the front-line staff who participated in the three-day interdisciplinary program. They brought natural talents and life experiences that were willingly shared during the sessions. They demonstrated motivation to improve their knowledge, skills and understanding in order to enhance the care they provide to palliative care patients and families and have become true ambassadors for quality end-of-life care.

We thank staff from *Cancer Care Nova Scotia* who provided countless hours of support for the Palliative Care Front-Line Education Program and this evaluation report. Judy Simpson, Palliative and Supportive Care Coordinator, developed and managed the Program. Lisa Houghton, Administrative Support, constructed binders, communicated with district coordinators, synthesized satisfaction surveys and developed certificates of participation. Members of the Surveillance and Epidemiology Unit, including Ron Dewar, Rosalee Walker and Tony Gao, developed the methodology for and completed the analysis of the pre/post/retention analysis. Laura Melanson, Public Relations Assistant, contributed to the written content of the report.

This project demonstrated the true meaning of teamwork, partnerships and collaboration.

Executive Summary

Palliative care theory and practice has developed significantly over the last twenty years; the challenge is that most practicing health professionals have not had the opportunity to be exposed to this content in their curriculum. As a result, little of the new knowledge is being applied and practiced, and the majority of palliative care providers have not received formal education and training in the principles and practices of palliative care. This creates the requirement for a program such as this.

The Palliative Care Front-Line Education Program is an interdisciplinary education course designed to provide front-line health care workers in Nova Scotia with the education component they need to ensure delivery of high quality palliative and supportive care. The unique three-day Program was developed in response to a current needs assessment and a Palliative Care Roundtable hosted by *Cancer Care Nova Scotia*. It was modeled after the Rural Palliative Home Care Project (a Federal Health Transition Fund, Health Canada Project 1999-2000) and contains eleven modules, which cover topics such as pain management, symptom management, and grief and bereavement.

From April 2002 through November 2004, the Front-Line Education Program was delivered to more than 1,400 participants by 117 facilitators. It was offered 19 times in total, and in each District Health Authority in the province at least once. In many instances, the number of registrants exceeded the enrolment capacity.

The following report highlights the methodology and results of the two-part evaluation conducted among participants who completed the course between April and November of 2003. The participants attended one of nine courses, which were offered in South Shore Health, South West Health, Annapolis Valley Health, Cape Breton District Health Authority or Capital Health.

The first part of the evaluation measured participants' satisfaction with the course. At the end of each module, participants were asked to indicate on a five-point scale whether:

- the objectives of the module were met;
- there was enough time to adequately cover the topic;
- the content was well organized;
- the content was applicable to their daily work;
- they gained new knowledge or skills; and,
- they found the facilitator knowledgeable.

Participants were also asked to complete a satisfaction survey at the end of each full day. The survey items related to the relevance of the materials, the structure of the course, and the workshop facilities.

The results of the satisfaction surveys indicated that participants were highly satisfied with the content, the facilitators, and with the overall set-up and structure for each of the three days. The greatest numbers of satisfaction scores for all items were between 4.0 and 4.5, out of a possible score of 5.0.

The second part of the evaluation measured participants' change in knowledge. Participants were asked to complete the Palliative Care Quiz for Nursing (PCQN) (Ross et al, 1996). The PCQN is a 20-item True/False/"I don't know" test that includes questions about the philosophy and principles of palliative care, pain management, and psychosocial and spiritual care. All participants were asked to complete the PCQN three times: at the beginning of the course (the pre-test), immediately following the completion of the course (the post-test), and again approximately five months later (the retention-test).

Figures 4, 5, 6 and 7 in the evaluation report demonstrate that participant knowledge increased as a result of the course (pre-test vs. post-test scores), and was retained during the five-month period following completion (post-test vs. retention-test scores).

The Palliative Care Front-Line Education Program was successful as it met the identified needs of the participants, as well as the objectives outlined by *Cancer Care Nova Scotia*. The Program encouraged collaboration, sharing of knowledge and experience, and the development of community partnerships. It significantly increased the number of front-line health care providers in Nova Scotia who have received proper education and training in palliative care, as well as the level of palliative care expertise available to cancer patients and families throughout the province. To build on the success of the Program and its impact on the delivery of palliative care, *Cancer Care Nova Scotia* recommends that:

1. The evaluation results be presented to the Education/Orientation Committee of the Department of Health Provincial Hospice Palliative Care Project and that their endorsement of the Program be sought.

2. The districts continue to offer the three-day Palliative Care Front-Line Education Program on a regular basis, based upon their identified needs.

3. *Cancer Care Nova Scotia* continue to offer support to the districts with future Programs. This support will be based upon the current Memorandum of Understanding.

Introduction

In Nova Scotia, an increasing number of individuals are requiring palliative care. This is largely due to advances in medical science, improving knowledge of chronic illness and an aging population. In addition, more and more individuals are receiving palliative care in a community setting and there is an increasing demand on health professionals.

In Nova Scotia, more and more individuals are receiving palliative care in a community setting and there is an increasing demand on health professionals.

Palliative care theory and practice has developed significantly over the last twenty years; however, it has not yet been fully integrated into the core curriculum of interdisciplinary health care providers. As a result, little of the new knowledge is being applied and practiced, and the majority of palliative care providers have not received formal education and training in the principles and practices of palliative care.

Providing palliative care requires a comprehensive understanding of the physical, emotional, social and spiritual impacts of serious illness and death. The Palliative Care Front-Line Education Program developed by *Cancer Care Nova Scotia* addresses these topics and the unique challenges facing palliative care providers. It was designed to provide participants with the education component they need to ensure delivery of high quality palliative and supportive care.

Background

In 2001, *Cancer Care Nova Scotia* hosted a Palliative Care Roundtable, at which the 150 participants identified the need for education of front-line care providers. In addition, health care providers in many Nova Scotian communities have told palliative care professionals that they lack the knowledge to skillfully manage their patients at end-of-life. To support their delivery of palliative care, health professionals expressed the need for professional development education that would enable them to better manage the unique challenges presented by their palliative care clients. They wanted to be provided with consistent and accurate knowledge in a timely, cost-effective manner.

"I'm a better person for having attended this workshop."

Responding to these identified needs, *Cancer Care Nova Scotia* developed the Palliative Care front-Line Education Program. The three-day program was modeled after the Rural Palliative Home Care Project (a Federal Health Transition Fund, Health Canada Project 1999-2000). The content responded to an educational needs assessment conducted by C*ancer Care Nova Scotia*. It was developed based upon a review of the literature, with input from interdisciplinary District Education Advisory Committees.

The Palliative Care Front-Line Education Program was developed for interdisciplinary front-line health care providers, such as nurses, physicians, home support workers, and pharmacists. It consists of the following modules:

Module 1: Principles and Practices of Palliative Care
Module 2: Dealing with Death Personally and Culturally
Module 3: Interdisciplinary Team
Module 4A: Pain Management
Module 4B: Understanding the Dying Person and Pain Management
Module 5A: Symptom Management
Module 5B: Personal Care and Symptom Management
Module 6: Communication
Module 7: Spiritual and Cultural Considerations
Module 8: Family Centered Care
Module 9: Grief and Bereavement
Module 10: The Dying Process
Module 11: Self Care and Closure

"I have gained a great deal of knowledge from these classes and will be able to apply this knowledge [to] my future clients."

The objectives of the Program were to:

- Increase the number of front-line health care providers in Nova Scotia who have received appropriate education and training in palliative care.
- Increase the level of palliative care expertise available to patients and their families throughout the province.
- Train a core group of facilitators in each health district who will deliver the content.
- Ensure the program supports community capacity building and is sustainable at the district level.

The curriculum incorporated a variety of learning strategies including lectures, small and large group discussions, and self directed and practice-based learning opportunities. Members of the District Education Advisory Committees identified curriculum facilitators in each district, who then delivered the modules to 1,457 participants across nine health districts between April 2003 and November 2004. In total, the front-line education course was delivered 19 times.

"I enjoyed the discussion and interaction, and found other people's experiences valuable and thought provoking."

Following the completion of the course, a two-part evaluation was conducted. This report will highlight the methodology and results of the evaluations conducted among 710 participants who completed the course between April and November of 2003. The participants attended one of nine courses, which were offered in South Shore Health, South West Health, Annapolis Valley Health, Cape Breton District Health Authority and Capital Health.

Evaluation Methodology

Satisfaction

The eleven modules presented in the course covered topics such as pain management, symptom management, spiritual care, and grief and bereavement. At the end of each of the eleven modules, participants were asked to complete a satisfaction survey. They indicated on five-point scales whether:

- the objectives were met
- enough time was allowed to adequately cover the topic
- the material was well organized
- they gained new knowledge or skills
- the content was applicable to their role in palliative care
- they found the presenter of each session to be knowledgeable.

For each module, the scores were averaged to provide a mean overall score for each of the above items.

The course was offered over three non-consecutive days. Typically, the course schedule was to hold a one-day session each week for three weeks. At the end of each day, participants were again asked to complete a satisfaction survey. They indicated on five-point scales whether:

- the printed materials were helpful
- the videos enhanced the presentations
- they were given the opportunity to interact with others
- there was adequate time to discuss concerns and ask questions
- the methods of teaching met their learning styles
- the workshop facilities were satisfactory

Following completion of all three days, the scores for each of the above items were averaged to provide a mean overall score for each item.

In addition, participants indicated their overall rating of each day on a five-point scale.

Change in Knowledge

Workshop participants' knowledge of palliative care was assessed using the Palliative Care Quiz for Nursing (PCQN) (Ross et al, 1996). The PCQN is a 20-item True/False/"I don't know" test of knowledge that covers the philosophy and principles of palliative care, pain and symptom management, and psychosocial and spiritual care of individuals and families. For the purpose of this evaluation, the PCQN quiz was divided into two parts. All participants were asked to answer both parts of the quiz and were given one point for each correct answer.

"The speakers were very informative and knowledgeable. I have learned many things both on a personal level as well as a professional level."

The first part (the pre-test) consisted of ten questions that participants with a non-medical or limited medical background could likely answer. The questions related to the philosophy and principles of palliative care, the psychosocial and spiritual care of individuals and families, and also included three general questions about pain and suffering.

The second part contained ten questions that only participants with a medical background would likely be able to answer correctly and included questions related to specific pain and symptom management issues.

All participants were asked to complete both parts of the PCQN at the beginning of the course (the pre-test), immediately following the completion of the course (the post-test) and again approximately five months later (the retention-test). Comparisons were made between the pre-test and post-test scores to measure change in knowledge and between the post-test and retention-test scores to measure retention of knowledge.

Evaluation Results

Satisfaction

The results indicated that participants were highly satisfied with the content, the facilitators, and with the overall set-up and structure for each of the three days.

The results of the satisfaction surveys indicated that participants were highly satisfied with the content, the facilitators, and with the overall set-up and structure for each of the three days. The overall satisfaction scores for the six items relating to individual modules ranged from a low of 2.59 to a high of 5.0 out of a possible score of 5.0, with the greatest number of scores being between 4.0 and 4.5. The overall satisfaction scores for each full day of the course ranged from a low of 3.01 to a high of 4.86 out of a possible score of 5.0, with the greatest number of scores being between 4.0 and 4.5. Analyses revealed that there were no significant differences in satisfaction across the five districts for any of the modules or course days.

Change in Knowledge

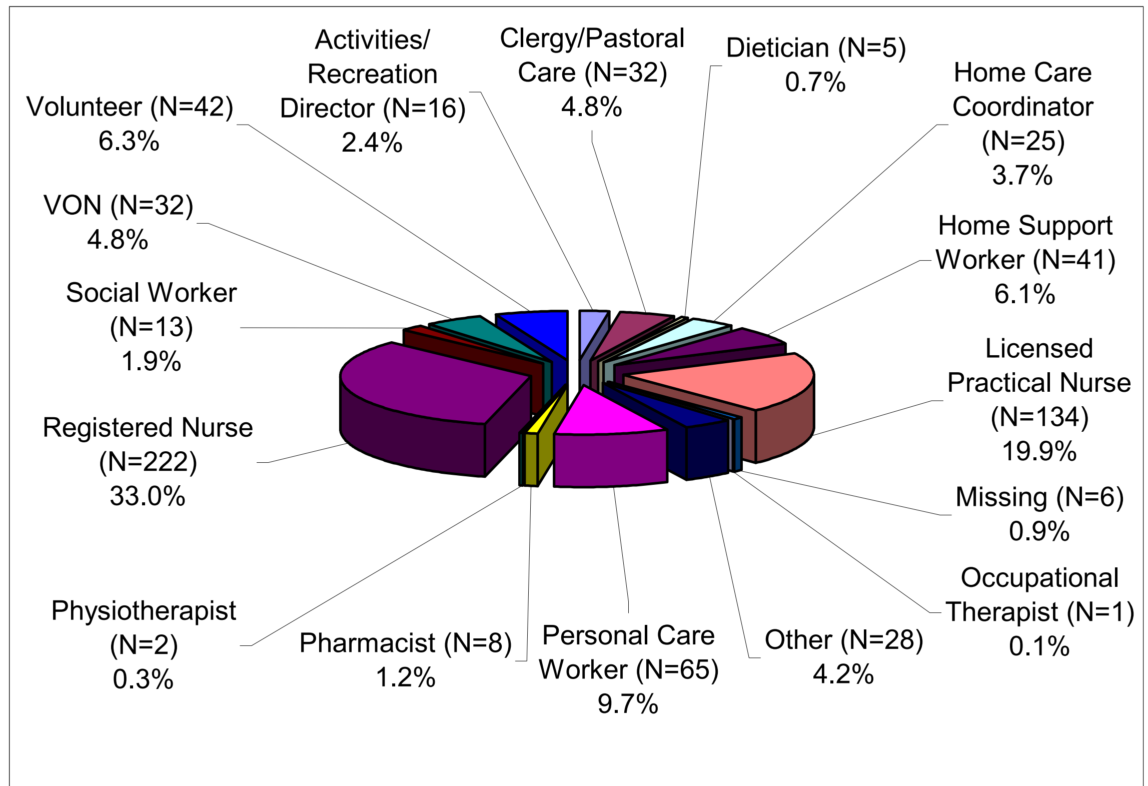
"I not only learned what to do, I learned what not to do."

The following results are a synthesis of the Pre/Post/Retention test data. The results of the change in knowledge demonstrate an increase in knowledge from pre to post test and a retention of knowledge from post to retention test. This increase and retention of knowledge is consistent in all health districts.

The total number of participants who completed the pre-test was 672 (out of the total 710). Figure 1 outlines the primary roles of those participants.

Figure 1: Frequency of Primary Role Completing Pre-Evaluation

Participants represented more than 16 types of primary health care providers including pharmacists, dieticians and nurses.



In order to facilitate the synthesis of data, participants were separated into three groups according to their backgrounds: non-medical, limited medical, and medical. Table 1 outlines how all the primary roles were categorized.

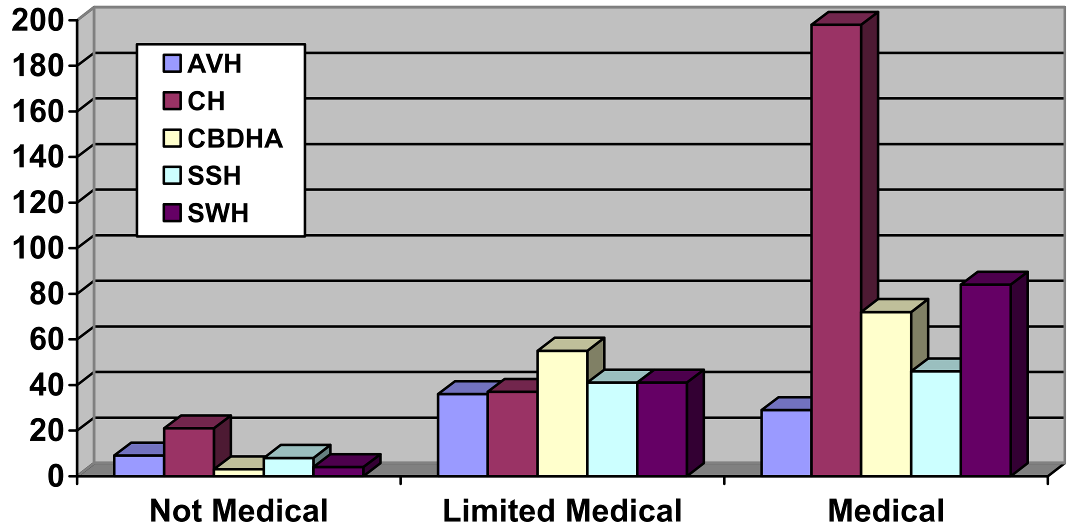
Table 1: The Classification of Primary Roles

Group Number	Primary Role
Group 1: Non Medical Background	Social Worker Clergy/Pastoral Care
Group 2: Limited Medical Background	Activities/Recreation Director Home Support Worker Personal Care Worker Volunteer Other
Group 3: Medical Background	Physician Physiotherapist Registered Nurse VON Dietitian Home Care Coordinator Licensed Practical Nurse Occupational Therapist Pharmacist

Annapolis Valley, Capital Health, Cape Breton, South Shore, and South West Health Districts participated in the workshop and the evaluation.

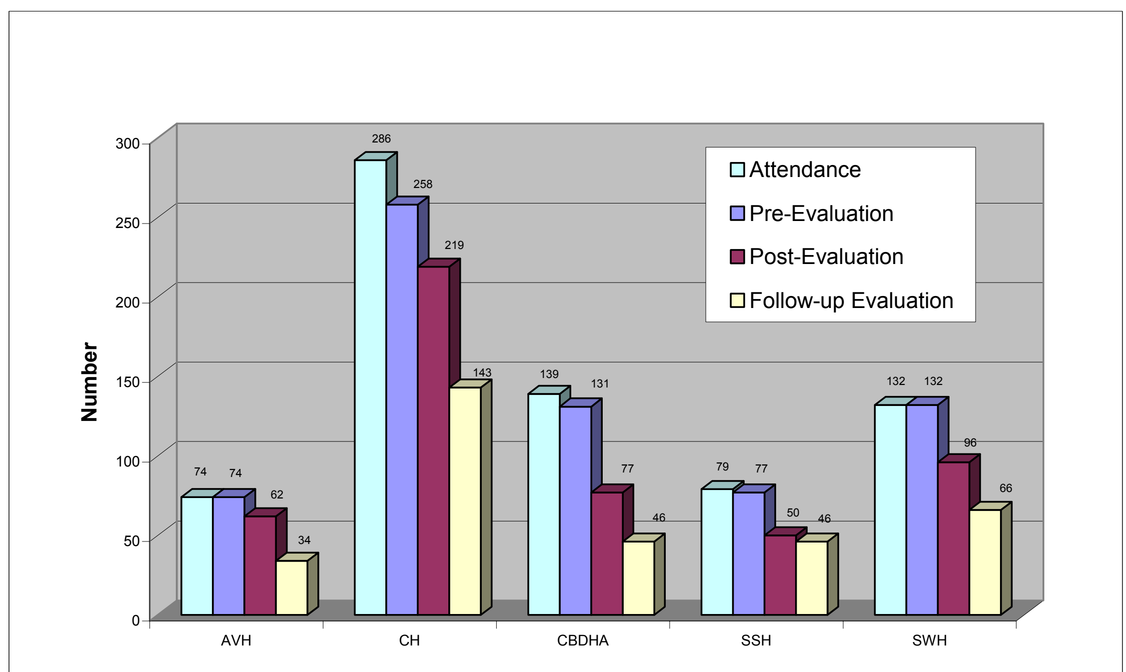
An analysis of the primary role for participants completing the pre-evaluation was also done by district. See Figure 2.

Figure 2: Participants Completing Pre-Test by District



The number of individuals attending the workshops and completing the pre/post/retention test was calculated by district. See Figure 3. Detailed data for attendance and completion of the pre/post/retention test is located in Appendix 1.

Figure 3: Attendance and Participation in Pre/Post/Retention Tests



The scores for the number of individuals who completed the pre-test only ("not matched") were compared to the scores of the individuals who completed both the pre- and post-test ("matched"). There is little difference in the baseline scores of those who had matched pre/post and post/ retention tests with those who were not matched. See Tables 2 and 3.

Table 2: Overall Means for Matched and Not Matched Tests
Pre-Evaluation (Post Matched Pre)

Group 1	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	8	6.50	2.88	9.38
Matched	37	7.14	2.32	9.46
Group 2	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	62	5.73	2.81	8.53
Matched	131	5.75	3.09	8.85
Group 3	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	126	6.88	5.86	12.74
Matched	303	7.13	6.64	13.77
Overall	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	196	6.50	4.77	11.27
Matched	470	6.75	5.32	12.07

Table 3: Overall Means for Match and Not Matched Tests
Post-Evaluation (Retention Matched Post)

Group 1	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	16	7.56	4.44	12.00
Matched	22	7.64	3.50	11.14
Group 2	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	71	6.59	5.24	11.83
Matched	68	6.56	4.41	10.97
Group 3	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	145	7.67	7.69	15.36
Matched	179	7.73	8.02	15.75
Overall	N	Score 1(1-10)	Score 2(11-20)	Total Score
Not Matched	232	7.33	6.72	14.05
Matched	269	7.43	6.74	14.17

Figures 4, 5, 6 and 7 demonstrate that participant knowledge increased as a result of the course, and was retained during the five-month period following completion.

Figures 4 and 5 illustrate the results of the pre/post/retention tests by district.

Figure 4: Results of Pre/Post/Retention Tests by District (part 1)

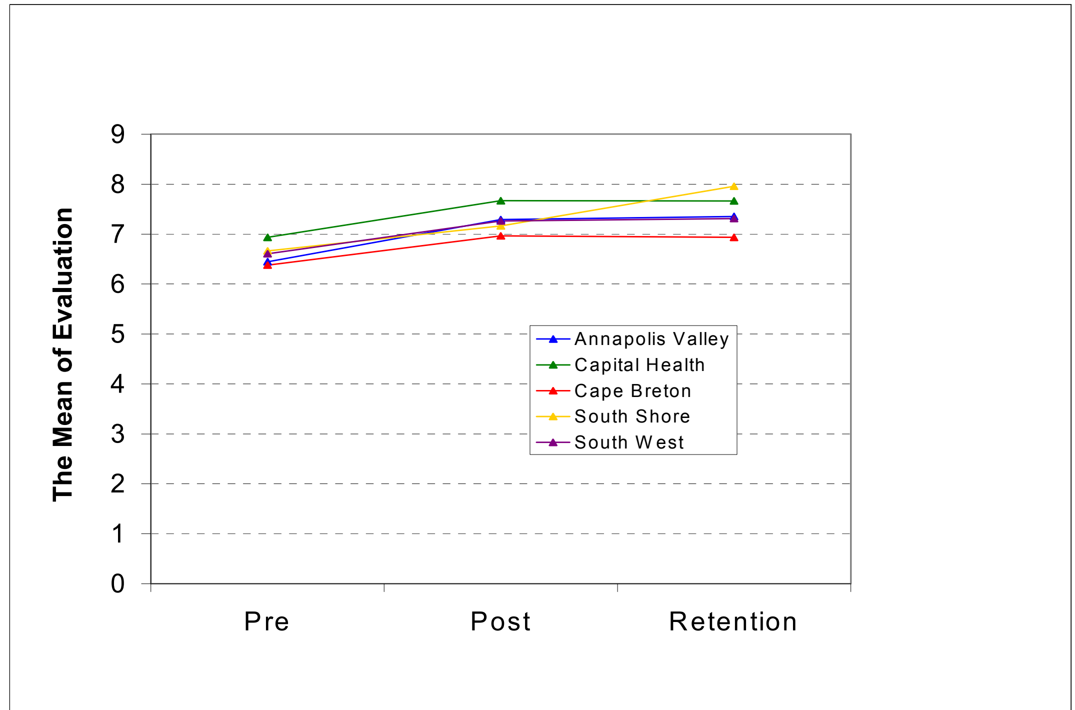
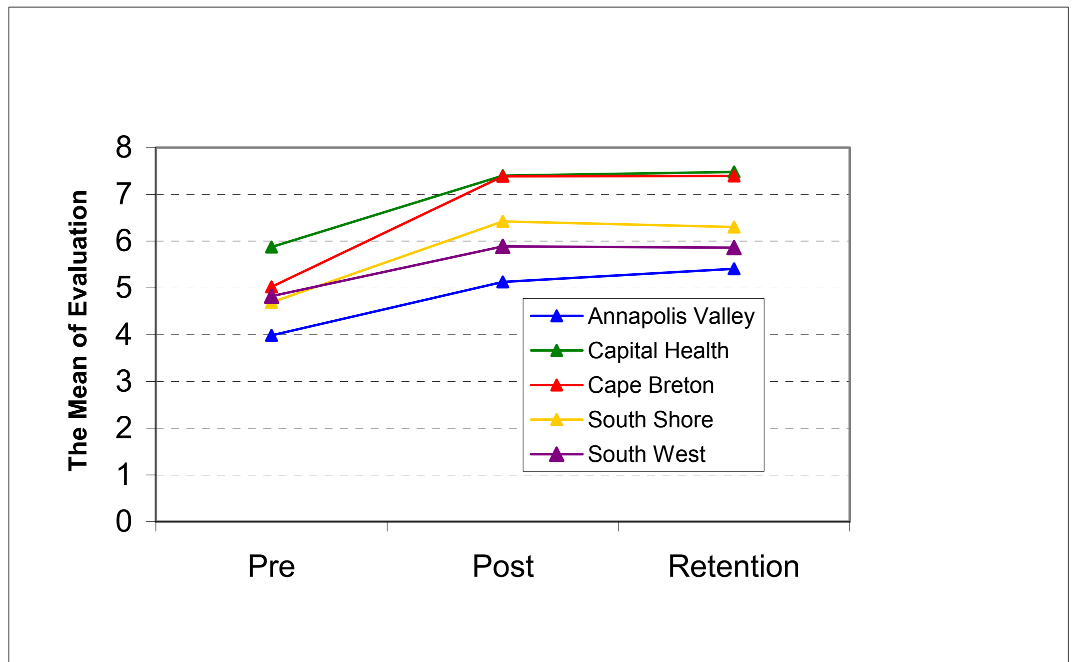


Figure 5: Results of Pre/Post/Retention Tests by District (part 2)



Figures 6 and 7 illustrate the results of the pre/post/retention tests by group (non-medical, limited medical, or medical background).

The Program significantly increased the number of front-line health care providers in Nova Scotia who have received appropriate education and training in palliative care.

Figure 6: Provincial Means for Pre/Post/Retention by Group (part 1)

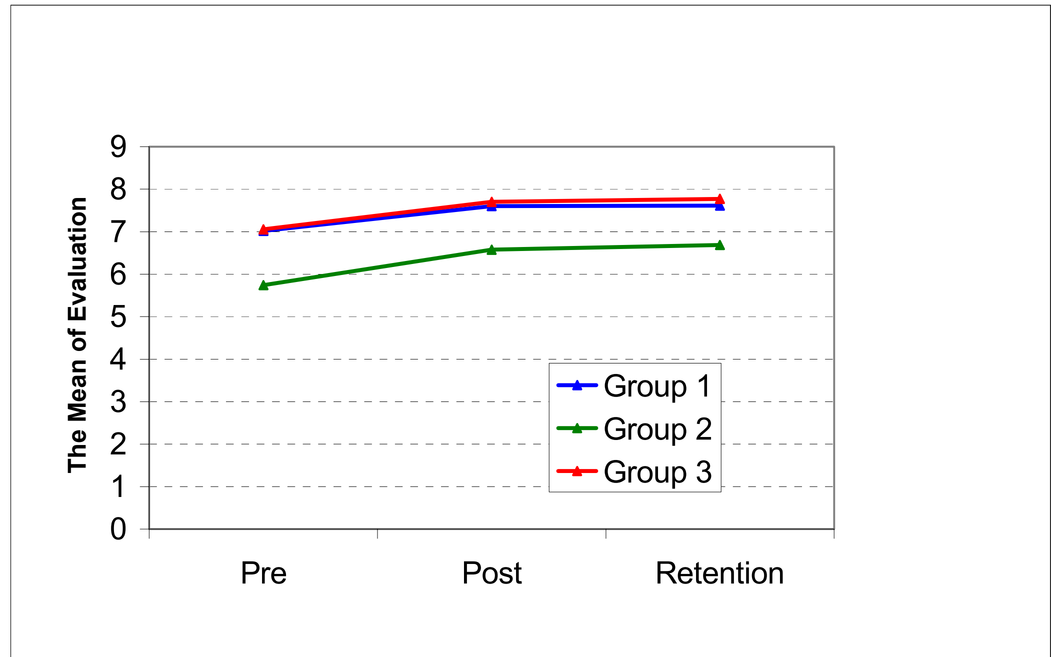
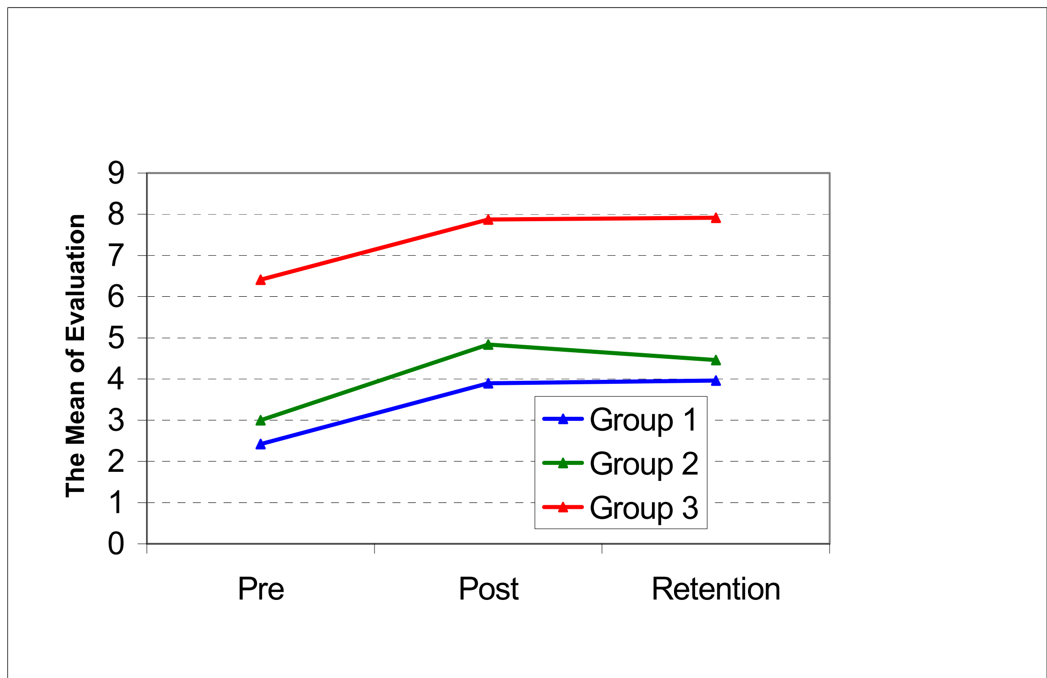


Figure 7: Provincial Means for Pre/Post/Retention by Group (part 2)



The data for Figures 4, 5, 6 and 7 demonstrates that participant knowledge increased as a result of the course (pre-test vs. post-test scores) $p < 0.05$ and was retained following the completion of the course (post-test vs. retention-test scores) $p > 0.05$. See Appendices 2 through 9 for complete data tables and p-values.

Conclusions and Recommendations

The Palliative Care Front-Line Education Program met the identified needs of the participants and District Health Authorities, as well as the objectives outlined by *Cancer Care Nova Scotia*. It encouraged collaboration, sharing of knowledge and experience, and the development of community partnerships. The Program significantly increased the number of front-line health care providers in Nova Scotia who have received appropriate education and training in palliative care. As a result, it also increased the level of palliative care expertise available to cancer patients and families throughout the province.

Nova Scotia's program had 1,400 participants and trained 117 facilitators.

Compared with…

A similar program, offered in five provinces, had 2,100 participants and trained 140 facilitators.

In a similar training program developed by the Canadian Hospice and Palliative Care Association, more than 2,100 support workers across five provinces participated and 140 health care workers were trained as facilitators. In comparison, *CCNS'* Palliative Care Front-Line Education Program was delivered to more than 1,400 participants in Nova Scotia alone, and trained 117 facilitators. In many instances, the number of registrants exceeded the enrolment capacity. The large number of participants indicates there is a significant interest for this type of education component in Nova Scotia. Health districts plan to continue to offer the course to ensure all waitlisted individuals are given the opportunity to participate.

Considering the provincial scope of the Program, numbers of participants and the positive evaluation results, the Palliative Care Front-Line Education Program was highly successful. Satisfaction with the content confirms it to be appropriate, meaningful and of value to the audience. To build on the success of the Program and its impact on the delivery of palliative care, *Cancer Care Nova Scotia* recommends that:

1. The evaluation results be presented to the Education/Orientation Committee of the Department of Health Provincial Hospice Palliative Care Project and that their endorsement of the Program be sought.
2. The districts continue to offer the three-day Palliative Care Front-Line Education Program on a regular basis, based upon their identified needs.
3. *Cancer Care Nova Scotia* continue to offer support to the districts with future Programs. This support will be based upon the current Memorandum of Understanding.

References

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Rural Palliative Home Care Project Team, (2001). A Rural Palliative Home Care Model: The Development and Evaluation of an Integrated Palliative Care Program in Nova Scotia and Prince Edward Island Published by Communications Nova Scotia

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Appendices

Appendix 1: Number of Individuals Completing Pre/Post/Retention Tests by District

DHA	Evaluation	Not Complete	Complete	% of Participants	% of Provincial Total
Annapolis Valley Health	Attendance 74				
	Pre-Evaluation	0	74	1.00	0.11
	Post-Evaluation	12	62	0.84	0.12
	Retention-Evaluation	28	34	0.46	0.10
Capital Health	Attendance 286				
	Pre-Evaluation	28	258	0.90	0.38
	Post-Evaluation	39	219	0.77	0.43
	Retention-Evaluation	76	143	0.50	0.43
Cape Breton District Health Authority	Attendance 139				
	Pre-Evaluation	8	131	0.94	0.19
	Post-Evaluation	54	77	0.55	0.15
	Retention-Evaluation	31	46	0.33	0.14
South Shore Health	Attendance 79				
	Pre-Evaluation	2	77	0.97	0.11
	Post-Evaluation	27	50	0.63	0.10
	Retention-Evaluation	4	46	0.58	0.14
South West Health	Attendance 132				
	Pre-Evaluation	0	132	1.00	0.20
	Post-Evaluation	36	96	0.73	0.19
	Retention-Evaluation	30	66	0.50	0.20
Total Attendance			710	1511	

Notes:
1. 2 individuals were excluded from the above table due to missing data (DHA not noted)
2. % of Participants: The proportion of participants completing the evaluation vs. the total number of class participants
3. % of Provincial Total: The proportion of the number of district questionnaires for an evaluation vs. the total number of provincial questionnaires for the evaluations

Appendix 2: Results of Paired T-Test for Each Identified Group for Score 1(Questions 1-10)

Pre-Evaluation vs. Post Evaluation	Group 1	N 37	Mean (Pre) 7.14	Mean (Post) 7.64	P-value 0.0473
	Group 2	N 130	Mean (Pre) 5.76	Mean (Post) 6.61	P-value <0.001
	Group 3	N 303	Mean (Pre) 7.13	Mean (Post) 7.73	P-value <0.001
	Overall	N 470	Mean (Pre) 6.75	Mean (Post) 7.41	P-value <0.001

Appendix 3: Results of Paired T-Test for Each Identified Group for Score 1(Questions 1-10)

Post-Evaluation vs. Retention-Evaluation	Group 1	N 22	Mean (Post) 7.64	Mean (Retention) 7.50	P-value 0.6902
	Group 2	N 68	Mean (Post) 6.56	Mean (Retention) 6.75	P-value 0.3133
	Group 3	N 179	Mean (Post) 7.73	Mean (Retention) 7.82	P-value 0.4098
	Overall	N 269	Mean (Post) 7.43	Mean (Retention) 7.52	P-value 0.5229

Appendix 4: Results of Paired T-Test for Each Identified Group for Score 2(Questions 11-20)

Pre-Evaluation vs. Post Evaluation	Group 1	N 37	Mean (Pre) 2.32	Mean (Post) 3.92	P-value 0.004
	Group 2	N 130	Mean (Pre) 3.09	Mean (Post) 4.83	P-value <0.001
	Group 3	N 303	Mean (Pre) 6.64	Mean (Post) 7.88	P-value <0.001
	Overall	N 470	Mean (Pre) 5.31	Mean (Post) 6.72	P-value <0.001

Appendix 5: Results of Paired T-Test for Each Identified Group for Score 2 (Questions 11-20)

	Group	N	Mean (Post)	Mean (Retention)	P-value
Post-Evaluation vs. Retention-Evaluation	Group 1	22	3.50	3.95	0.2855
	Group 2	68	4.41	4.65	0.3853
	Group 3	179	8.02	7.89	0.2112
	Overall	269	6.74	6.75	0.9133

Appendix 6: Paired T-Test Results Pre-Evaluation vs. Post-Evaluation Score 1 (Questions 1-10)

Location	N	Mean Pre	Mean Post	P-value
Annapolis Valley Health	60	6.60	7.31	0.0013
Capital Health	207	7.05	7.69	<0.0001
Cape Breton District Health Authority	70	6.40	6.93	0.0049
South Shore Health	46	6.24	7.24	0.001
South West Health	87	6.69	7.31	0.0022

Appendix 7: Paired T-Test Results Post-Evaluation vs. Retention-Evaluation Score 1 (Questions 1-10)

Location	N	Mean Pre	Mean Retention	P-value
Annapolis Valley Health	33	7.46	7.56	0.7071
Capital Health	120	7.64	7.69	0.6954
Cape Breton District Health Authority	36	7.02	6.81	0.3597
South Shore Health	28	7.57	7.75	0.5319
South West Health	52	7.12	7.50	0.0959

Appendix 8: Paired T-Test Results Pre-Evaluation vs. Post-Evaluation Score 2 (Questions 11-20)

Location	N	Mean Pre	Mean Post	P-value
Annapolis Valley Health	60	3.95	5.17	<0.0001
Capital Health	207	6.08	7.35	<0.0001
Cape Breton District Health Authority	70	5.24	7.34	<0.0001
South Shore Health	46	4.61	6.39	<0.0001
South West Health	87	4.90	5.99	< 0.0001

Appendix 9: Paired T-Test Results Post-Evaluation vs. Retention-Evaluation Score 2 (Questions 11-20)

Location	N	Mean Pre	Mean Retention	P-value
Annapolis Valley Health	33	5.18	5.36	0.4687
Capital Health	120	7.64	7.52	0.7088
Cape Breton District Health Authority	36	7.44	7.19	0.336
South Shore Health	28	6.43	6.04	0.3531
South West Health	52	5.75	5.94	0.3704