FINAL PROGRESS REPORT
Understanding the Factors that Influence Recruitment and Retention in Oncology Nursing

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KEY IMPLICATIONS FOR DECISION MAKERS

From this research project, several key implications emerged that focused on determining workplace strategies to strengthen oncology practice environments and contribute to human resource planning. These messages to decision makers address the need for a national oncology nurse human resource plan and the specific challenges of how to value, retain and maximize the skills and productivity of oncology nurses currently in the system, and how to improve work environments to attract new nurses into cancer care. Competition among organizations to recruit and retain nurses is a real-life phenomena; meeting patient care needs requires organizational investment focused on nurse retention as well as recruitment of new nurses.

POLICY
• Develop an organized national human resource plan directed at oncology nursing as a priority within the Canadian Strategy for Cancer Control national cancer workforce strategy.
• Develop provincial and national registered nurse minimum data sets that include descriptors of nurses’ clinical specialties, so that information can be extracted for human resource planning to meet current and future nursing care demands of specific patient populations. Development of such databases could be established through partnerships between provincial nursing registrars and the Canadian Nurses’ Association.

EDUCATION
• Establish formal partnerships between regional cancer programs and schools and faculties of nursing that focus on student-preceptor clinical experiences leading to full-time employment and continuing professional development through mentorship programs.
• Establish dedicated oncology streams in MScN programs to recruit and develop advanced practice nurses prepared to care for complex cancer patients. Coach and mentor nurses caring for cancer patients and their families in hospitals, cancer care agencies, and the community.
• Invest in cancer nurses already in the system by allocating organizational resources for professional growth and continuing education through paid time for conference or course attendance, or through secondment to participate in special projects.

PRACTICE SETTINGS
• Demonstrate recognition and valuing of nurse specialty certification through strategies such as reimbursement of certification examination fees or salary differentials. Nurse unions should consider such recognition in collective bargaining.
• Establish innovative and flexible work schedules that maximize the expertise of cancer nurses near retirement to mentor novice nurses or casual nurses already employed in the system.
• Develop institutional policies and infrastructures that facilitate rather than restrict enactment of the full scope of practice of registered nurses.
• Include oncology nurses who understand the passion for the specialty as part of recruiting teams, so that an organization’s recruitment efforts are more informative and conducive to meeting the nursing care needs in oncology.

LEADERSHIP
• Allocate funds to develop nurse leaders, managers and decision makers who can create work environments that empower and promote nurses as valued and equal contributors to interdisciplinary cancer care teams.

RESEARCH
• Fund projects to test and evaluate strategies aimed at improving oncology work environments in order to attract and retain nurses.
EXECUTIVE SUMMARY

THE RESEARCH ISSUE:

It is predicted that by 2016, Canada will be short 113,000 nurses and that this shortage will be exacerbated by a potential 53.4% increase in the demand for nursing services. Canadian cancer statistics showing a steady increase in the cancer patient workload strongly suggest that a large part of this demand for nursing services will come from the field of oncology. Thus, recruitment and retention of nurses is a serious problem confronting decision makers who are responsible for patient care and human resource management. To date, research efforts examining the nursing workforce have focused mainly on nurses as a collective group, and little attention has been paid to nursing specialties such as oncology nursing. However, it is imperative for decision makers to gain a better understanding of what attracts nurses to oncology in the first place, what workplace and professional practice factors influence their continued employment, and how to improve the working lives of oncology nurses. This research project addressed these challenges by:

- examining the impact of workforce, professional practice and knowledge transition factors on the quality of oncology nurses’ working lives; and
- determining strategies that strengthen oncology practice environments and reflect innovative and collaborative professional practice conducive to building a sustainable and high-quality nursing workforce.

RESEARCH OUTCOMES AND IMPLICATIONS

The findings of this research project can contribute to a national cancer workforce strategy that aims to recruit and retain qualified health care professionals. The project’s design and its national perspective ensure that the outcomes are applicable to cancer care settings across Canada. Using traditional research methods and a participatory action approach, decision makers and oncology nurses were engaged in a process to examine work environments and address recruitment and retention in oncology nursing.

The prospective research design of Phase I provides information about oncology nurse work environments across Canada, oncology nurse retention, and the development of a conceptual
model that predicts nurses’ job satisfaction. In 2004, more than 75% of the 615 oncology nurses surveyed indicated: they had positive relationships with physicians; had freedom to make patient care and work decisions; and were supported by their managers in their nursing decisions. However, 45% of the nurses reported not having opportunities to participate in policy decisions or having administrators who were visible, accessible or responsive to employee concerns. In the 2006 follow-up survey, similar trends were found in how nurses perceived organizational characteristics. The one difference noted was the percentage of nurses who indicated that there were not enough RNs to provide quality patient care, which increased by 10% from 2004 to 2006.

This project was the first longitudinal cohort study of oncology nurses in Canada to capture data about nurse retention. In the 2004 survey, 6.4% (39/615) of the nurses reported an intent to leave their job, whereas in 2006 this number increased to 26% (102/397). Of the 397 participants resurveyed in 2006, 4.3% (17/397) reported they were still a nurse but no longer in oncology, and 2% (8/397) reported that they had left nursing altogether. Of the eight people who left nursing, five retired and the others said their departure was precipitated by “unacceptable working conditions.”

The conceptual model tested showed several factors that directly influenced nurses’ job satisfaction. These factors were: positive physician/nurse relationships; philosophy of nursing; ability to influence patient care; enough RNs to provide quality care; freedom to make important patient care decisions; and supervisor support in managing conflict.

The participatory action research approach used in Phase II contributed information from the perspectives of both oncology nurses and decision makers. The use of focus groups to collect data allowed those affected by change (oncology nurses) and those facilitating change (decision makers) to provide input. Several recommendations emerged from the analysis of focus group discussions. The most compelling recommendation was the need to develop a national health human resource plan for oncology nursing. The participants recognized that models of care and types of roles for nurses need to change to meet the future requirements of care, and that only a national strategy would achieve this end. Other recommendations addressed the need for organizations to recognize and value oncology nursing as a specialty.
The concern was expressed that although there is an increasing incidence of cancer in Canada, there is disproportionate investment in oncology education to prepare novice nurses and facilitate the professional growth of nurses already in the system. Both nurses and decision makers identified the need for mentorship to retain nurses, acknowledging that orientation was not enough. Investment in leadership was deemed essential for creating environments where nurses want to work.

Competition among organizations to recruit and retain nurses is a real-life phenomena; meeting patient care needs requires organizational investment focused on nurse retention as well as recruitment of new nurses. To attract and retain nurses who are qualified to meet the health needs of Canadians living with cancer, recruitment and retention strategies must be both pragmatic and innovative. They need to reflect the social, demographic and fiscal realities of the 21st century. The outcomes of the project will benefit the management of human resources and health services policy for the specialty of oncology nursing. The research findings set the stage for change by providing recommendations and thus laying the foundation for further research focusing on the implementation and evaluation of specific work environment strategies.
I. CONTEXT

The research project entitled “Understanding the factors that influence the recruitment and retention in oncology nursing” was initiated as a response to reports by decision makers and nurses that called for action to develop plans for the recruitment and retention of qualified healthcare professionals. The project goals were to:

- produce information about how workplace, professional practice and knowledge transition factors influence the working lives of Canadian oncology nurses; and
- determine strategies that would strengthen and sustain a quality oncology nursing workforce.

The Canadian Nurses Association predicts that by 2016, Canada will be short 113,000 nurses and that this shortage will be exacerbated by a potential 53.4% increase in the demand for nursing services. Given this gloomy forecast, recruitment and retention of nurses is a crucial issue confronting decision makers in the Canadian healthcare system. In addition, as Canadian cancer statistics show there will be a steady increase in the cancer patient workload, it is clear that a large part of the demand for nursing services will come from the field of oncology. These statistics send a strong message that there is a pressing need to develop an organized national human resource plan directed at oncology nursing. Therefore, gaining a better understanding of factors that attract nurses to the field of oncology, that influence their continued employment, and that could improve the working lives of oncology nurses is vital for decision makers who are responsible for patient care and human resources management.

Over the past decade, healthcare reform and restructuring have resulted in significant changes in the work environments of healthcare professionals. Many research studies have been published describing the impact of these changes on the nursing workforce in Canada and several other countries. The findings of these studies show that nurses perceive a loss of control over their personal lives, jobs and career opportunities, and that these changes lead to a compromised ability for nurses to provide quality patient care. As well, these studies indicate that despite the global nursing shortage, few strategies have been instituted to promote the effective recruitment and retention of the nursing workforce.

There can be little doubt that healthcare system restructuring also has affected oncology nurses and has had an impact on their work experiences. However, research in Canada on nurses’ work environments has focused mainly on nurses as a collective group, and there is a scarcity of research focused on nursing specialties such as oncology nursing. Attention to nursing specialties and human resource planning is extremely important to ensure that there will be adequate numbers of nurses in the future who have the specialized knowledge, skills and experience to meet the unique care needs of patients living with complex illnesses such as cancer.

Prior to this research project, only one study in Canada had explored the work life of oncology nurses. A recent qualitative study conducted by the research team revealed that Canadian oncology nurses perceived that they had an unstable work environment. Fifty-one oncology nurses employed across the country were interviewed about “how oncology nursing had changed since 1995.” The stories collected revealed that nurses were experiencing high levels of stress as they tried to overcome multiple daily challenges in providing comprehensive care to their patients and find meaning in their roles as cancer nurses. The nurses’ descriptions of being “in survival mode” were alarming. Their messages reinforced the need to focus attention on work environments in order to develop strategies that could support and value oncology nurses’ work to retain experienced nurses, and to attract new nurses. The findings of this initial qualitative study served as the foundation for the work described in this document.

Therefore, to further examine Canadian oncology nursing work environments and understand the factors influencing recruitment and retention, two research questions were posed:

1. What is the impact of workforce management, professional practice and knowledge transition factors on the quality of oncology nurses' working lives?
2. What are workplace strategies that will strengthen oncology practice environments and reflect an innovative and collaborative practice conducive to building a sustainable and high-quality nursing workforce?

II. IMPLICATIONS

The issue of recruitment and retention of oncology nurses has major implications for decision makers who have responsibility for patient care and human resources management. The predicted shortage of oncology nurses\(^1\) will have serious consequences for the growing numbers of cancer patients,\(^4\) and thus pose real and direct threats to the nation’s ability to provide a quality cancer care program for Canadians. From the decision makers’ perspective, the specific challenges relate to ways in which they could: value, retain and maximize the skills and productivity of oncology nurses currently in the system; improve the work environment; and attract new nurses into the field of oncology. Our project addressed these challenges. Our findings are consistent with the recommendation made by the Canadian Strategy for Cancer Control for “a national cancer workforce strategy to support the operational planning needs for the cancer system in Canada”\(^1\).

The project’s design, its national perspective, and its composite of researchers and informants (oncology nurses and decision maker participants) ensure that the outcomes are applicable to cancer care settings across Canada. By using traditional research methods and a participatory action approach, the research team engaged decision makers and nurses in addressing issues of recruitment and retention in oncology nursing. Linkages were established throughout the project with both groups of stakeholders (nurses and decision makers) for information-gathering and knowledge transfer.

The outcomes of this project target the management of human resources and health service policy for the specialty of oncology nursing. The project findings are particularly relevant to decision makers who have authority to influence organization and workplace changes related to cancer nurses. Firstly, the prospective research design in Phase I provides information about oncology nurse work environments across Canada and ways in which the workplace and professional practice factors have changed over time. As this is the first longitudinal study of a cohort of Canadian oncology nurses, the findings provide new information about nurse retention. Secondly, the participatory action research approach used in Phase II contributes information from the perspectives of oncology nurses and decision makers. In order to attract and retain nursing personnel who are qualified to meet the health needs of Canadians living with cancer, recruitment and retention strategies must be both pragmatic and innovative. They must reflect the social, demographic and fiscal realities of the 21st century. The use of focus groups to collect data allowed nurses and decision makers to examine oncology work environments and have input into identifying nurse recruitment and retention strategies. Therefore, the findings of Phase II set the stage for change by providing specific workplace recommendations.

The study and its findings target human resource planning in the field of oncology, but may also be of interest and applicable to other nurse specialty groups in Canada. Within the realm of cancer control, the research findings are relevant to several stakeholder groups that include:

a) Administrators, Managers and Leaders in Cancer Agencies, Hospitals and Community: Preliminary findings have been shared throughout the project tenure with individuals in leadership and health human resource planning positions in cancer control (for example, the Canadian Strategy for Cancer Control, Canadian Association of Provincial Cancer Agencies, Canadian Association of Nurses, Office of Nursing Policy, Health Canada, and hospital Human Resource units) through the research project advisory committee, invited workshops, and focus groups. In meeting with these stakeholders, efforts were made to increase awareness and set the stage for an organized nursing human resource plan as a vital part of the “national cancer workforce strategy”\(^1\).
b) **Researchers:** The study results are stimuli for future research projects related to healthcare services delivery and human resource planning. The research team participated in several workshops with other Canadian and international researchers who have interests in workforce issues related to cancer nursing. A recent Canadian workshop involving four research teams resulted in the identification of national research priorities related to professional and work life issues in cancer nursing.

c) **Educators and Educational Institutions:** The research findings suggest the need for stronger links with educational programming at all levels of nursing: post-RN, baccalaureate and graduate. To sustain a quality oncology nursing workforce, there must be a concerted effort to educate and develop nurses with the knowledge and skills required to care for the increasing number of cancer patients. Curriculum changes are needed at the baccalaureate level to proactively prepare new graduates to provide comprehensive care to cancer patients within acute care settings and in the community. Graduate education programming in oncology nursing is required to prepare nurses at the advanced practice level to meet the needs of complex patients, and to act as consultants and mentors to generalist and specialist nurses in cancer care. Continuing education and staff development programs must be available and accessible for nurses already practicing in the field of oncology so that they may keep abreast of the new advances in cancer control.

d) **Provincial Nurse Regulatory Bodies and Nurse Associations:** The study findings reveal the need to develop provincial and national databases that identify nurses according to their practice specialty. Currently, not all provincial registrars collect information describing nurses’ practice expertise such as oncology. Without such databases, estimations of the number of additional nurses needed to provide care to specific patient groups are not available for human resource planning.

**III. APPROACH**

To answer the two research questions, the project was implemented in two phases.

**PHASE I: ONCOLOGY NURSE WORK ENVIRONMENTS**

Phase I addressed the first research question, *“What is the impact of workforce management issues, professional practice and knowledge transition on the quality of oncology nurses’ working lives?”* The focus was the examination of Canadian oncology nurse work environments and the specific objectives were to:

- determine the presence of workforce, professional practice and knowledge transition factors in oncology nurses’ work environments across Canada, and their differences with respect to time and demographics such as age, education, nursing experience and geographical location; and

- test a conceptual model that proposed specific linkages among workforce and professional practice factors and job satisfaction. This conceptual model was developed from the literature and previous qualitative work of the research team”.

**Research Design:**

In Phase I, a prospective survey design was used to collect information from oncology nurses about their work environments and their professional practice. Oncology nurses across Canada were surveyed twice, with a two-year interval between data collection times.

**Sampling:**

Research participants were registered nurses who provided direct care to cancer patients and were employed full-time or part-time in a variety of cancer care settings that included ambulatory care clinics, hospital in-patient units and community care services such as palliative care and home care. However, sample recruitment to conduct a national survey of
Canadian cancer nurses was a major challenge. The challenge was that there is no existing national registry in Canada that identifies nurses according to their specialty of nursing practice, such as oncology. Thus, there was no available sampling frame from which to randomly select a study sample for the national survey. The lack of national or provincial registries indicating specialty or expertise is unique to nursing. For example, databases indicating physician specialty and the number of physicians representing each specialty are maintained by provincial physician registrars. However, across Canada, the specialty or area of nursing practice expertise is not a standard piece of information that is collected at the time of annual license renewal. The information collected about a nurse’s practice focus is broad (community, medical/surgical) and thus provides no descriptors about the type of patient population that is served. The lack of such a nursing database is problematic beyond the challenge of sampling for survey research. The real problem has an impact on human resource planning, in that without such a database, it is impossible to determine the actual number of nurses providing cancer care across Canada. Without these data, effective human resource planning is impeded.

For this research project a convenience sample of oncology nurses was sought to participate in the two-year prospective study. For the initial survey in 2004, several strategies were used to identify and invite oncology nurses to participate. First, questionnaires were mailed to members of the Canadian Association of Nurses in Oncology (CANO) and the Association Québécoise des Infirmières en Oncologie (AQIO). Membership to these nurse associations is voluntary and therefore represents only a proportion of cancer nurses in Canada. Secondly, permission was gained from cancer care agencies in several provinces to distribute questionnaires to nurses employed at these facilities. In addition, to increase recruitment, a notice of invitation to participate in the study was published in the Canadian Oncology Nursing Journal and on the project website (www.con-rn.ca).

In 2004, a total of 2,002 questionnaires were distributed and 615 nurses completed and returned their questionnaire. Although the target for questionnaire distribution was oncology nurses providing direct patient care, the strategy for sample recruitment was not uniquely sensitive to that group of nurses. For example, study questionnaires distributed through the general membership of the Canadian Association of Nurses in Oncology were mailed to oncology nurses whose primary focus was direct patient care, as well as to oncology nurse administrators, researchers and educators. Therefore, the response rate of 31% is considered an under-representation of the “true” response rate for eligible participants. It reflects the broad and widespread questionnaire distribution that was used to obtain an adequate sample size without the aid of a national registry of oncology nurses.

Eligible participants for the 2006 survey were nurses who participated in the first survey and consented to be resurveyed in two years’ time. Of the 615 oncology nurses who participated in 2004, 525 nurses provided consent for follow-up. In total, 397 nurses completed and returned the second questionnaire, giving a response rate of 76% for the 525 nurses who consented to the follow-up and a response rate of 65% for the overall initial sample of 615 nurses.

Data Collection

For both surveys, data were collected using self-report questionnaires. The questionnaire was available in both English and French. The questionnaire used in 2004 contained three sections. The first section requested demographic information such as age, years in nursing, years of oncology nursing experience, and nursing education. The second section included items from the Nursing Work Index-Revised (NWI-R). The NWI-R is a tool designed to measure organizational nursing work characteristics. In this section, participants responded by indicating their level of agreement about whether the items (or factors) listed were present in their work environments. The third section included questions about job satisfaction, perception of quality of care, and intention to leave current job. The follow-up questionnaire in 2006 was similar, with some new questions added. These new questions sought information about whether participants had remained, left or changed jobs since the first survey, and the reasons for
any change made. The purpose was to collect data for the first time about oncology nurse job retention in Canada.

In addition, survey data were used to test a conceptual model that was originally developed from the literature and the research team’s earlier qualitative work. The conceptual model was estimated and tested as a structural equation model using LISREL and maximum likelihood estimation.

**PHASE II: RECRUITMENT AND RETENTION**

Phase II addressed the second research question, “What are workplace strategies that will strengthen oncology practice environments and reflect an innovative and collaborative practice conducive to building a sustainable and high-quality nursing workforce?” The focus was to collect information from the perspectives of both oncology nurses and decision makers.

**Research design**

A participatory action research approach was taken to engage oncology nurses and decision makers in discussions about workplace strategies that reflected the needs and concerns of both groups. In this approach, the interaction between action and research was iterative; information was collected from participants (stakeholders) and fed back to them in order to examine issues from the stakeholder’s perspective.

**Data Collection**

Data were collected by conducting focus groups. Information obtained in Phase I and throughout Phase II formed the basis for focus group discussions.

**Sampling**

To “give voice” to both stakeholder groups (oncology nurses and decision makers) three different types of focus groups were conducted. Oncology nurse focus groups were conducted to collect information from the perspective of “front-line providers”. Participants were oncology nurses who provided direct care to cancer patients and who were employed full-time or part-time in inpatient, outpatient or community cancer care settings. Twelve focus groups were conducted as face-to-face sessions in eight provinces across Canada.

The second series of focus groups was conducted with decision makers as participants. Decision makers were defined as individuals who had responsibility and authority for influencing nurse work environments and included nurse leaders (managers or administrators) and human resource leaders. One focus group was a face-to-face session at a national oncology nursing conference and included decision makers from across Canada. The other three focus groups were conducted as teleconferences in order to include participants from different healthcare agencies and from different geographical locations. Two of the groups included nurse decision makers and the other group included participants who were not nurses but who were human resource leaders.

A third series of focus groups included oncology nurses and decision makers together as participants. Three teleconference focus groups were conducted where oncology nurses who had taken part in previous focus groups participated in discussions with nurse decision makers. Inviting past participants to take part in these mixed focus groups promoted ongoing dialogue about nurse recruitment and retention issues. However, some additional nurse leaders were invited to participate to increase geographical representation across the country and seek new perspectives and reactions to the study findings. The three teleconferences included participants from western, central and eastern Canada.

**DECISION MAKER INPUT AND LINKAGES WITH STAKEHOLDERS**

Preliminary findings from Phase I and Phase II were shared with other stakeholders in meetings and workshops throughout the tenure of the research project. In this way, different perspectives and experiences were solicited and ultimately contributed to the final outcomes.
of the project. The research team established linkages with decision makers and other research or working groups with interests in health human resource planning and workforce issues in oncology. The purpose of these linkages was: to increase the awareness of human resource and workplace issues within the nursing community and the broader cancer control sector; to promote knowledge transfer and the dissemination of preliminary findings; and to exchange ideas and seek input about how decision makers could use the outcomes of the study.

At the onset of the project an advisory committee was formed. This committee included representatives from nurse and oncology stakeholder groups (Canadian Nurses Association; Canadian Association of Nurses in Oncology; Health Canada, Office of Nursing Policy; Association Québécoise des Infirmières en Oncologie; Canadian Association of Provincial Cancer Agencies; and the Canadian Strategy for Cancer Control). Interaction with the advisory committee took place through teleconferences and written reports, as well as with one face-to-face full-day workshop. The advisory committee provided feedback about preliminary results from Phase I and Phase II, direction regarding focus group questions, and strategies for dissemination of study results to stakeholder groups.

The research team was invited to participate in a “think tank” entitled “Understanding the Canadian Oncology Nursing Workforce” sponsored by the Canadian Strategy for Cancer Control Human Resources Group in Ottawa in June 2005. The purpose was to determine what is known about the demographics of oncology nursing in Canada and to identify gaps in knowledge.

A two-day invitational workshop entitled “Exploring Future Research Directions: Cancer Nursing Workforce Challenges 2006” was co-hosted by the research team in June 2006 in Toronto. The workshop included presentations from four funded Canadian oncology nursing research teams. Roundtable discussions addressed workplace knowledge transfer, specialized and advanced oncology nursing clinical roles, recruitment and retention, and nurse work environments. The workshop participants included nurse researchers, nurse clinicians, nurse educators and nurse organizational leaders from across Canada. The outcome of the workshop included the identification of commonalities and differences in the findings of the four research studies and oncology nursing research priorities at the provincial and national levels.

The research team co-hosted a one-day pre-conference workshop entitled “Workforce Issues in Cancer Nursing” at the 14th International Conference on Cancer Nursing in Toronto in September 2006. The workshop participants included oncology nurses from North America, the U.K., Australia, and Europe. Plenary sessions included presentations of research findings and the identification of cross-cultural workplace issues. Small group interactive sessions allowed networking and further exchange of information about initiatives that targeted workplace and human resource issues in different settings, cultures and geographical regions.

The research team has made several presentations about Canadian oncology workforce issues at international and national nursing and research conferences (Appendix 1). Further information about the research team’s dissemination plan can be found in Appendix 2.

IV. RESULTS

PHASE I: ONCOLOGY NURSE WORK ENVIRONMENTS

The outcomes of Phase I include: descriptive information about oncology nurses’ work environments across Canada and how they have changed over time; new information about retention of oncology nurses; and testing of a conceptual model that predicts nurses’ job satisfaction.

a) Oncology nurse work environments:

A sample of Canadian oncology nurses was surveyed twice over the course of two years to determine the presence of workplace and professional factors in oncology work environments and their change over time. The first survey, conducted in 2004, included responses from 615 oncology nurses. The demographic characteristics of the 2004 survey participants are
found in Appendix 3. The average age of this nurse sample was 45 years old. The small number of nurses 30 years and younger reflects the reality of age distribution for the current workforce of Canadian nurses in general. Most nurses were employed full-time (68%) and had received their nursing education through college diploma programs (50%). It was interesting to note that 42% of the sample had achieved oncology nursing certification through the Canadian Nurses Association. The sample represented an experienced nursing workforce with an average of 24 years of nursing experience. However, the average number of years of oncology nursing experience was 12, thus suggesting that most of the nurses in the sample did not begin their nursing career in the field of oncology.

Of the initial sample of 615 nurses, 397 (65%) responded to the follow-up questionnaire in 2006. The demographic characteristics of the 2006 survey participants can be found in Appendix 4. To gain a perspective of how nurses who participated in the follow-up questionnaire were different from nurses who did not respond or wish to participate in the follow-up survey, the demographic characteristics of these two groups were compared. The analysis indicated that these two groups were statistically significantly different with respect to age and years of nursing and oncology experience, with responders (the follow-up nurse cohort) more mature in age and having more oncology nursing experience.

Oncology nursing work environments were examined by seeking nurses’ perceptions about the presence of organizational workplace and professional practice factors in their work settings (Appendix 5). In the 2004 survey, nurses predominately reported (90%) that “physicians and nurses had good working relationships,” and at least 75% of the nurses perceived they had “freedom to make important patient care and work decisions” and were supported by managers in their nursing decisions. However, 45% or more of the nurses believed they did not have “opportunities to participate in policy decisions,” did not have “administrators that listened and responded to employee concerns,” and had “senior nursing administrators who were not visible and accessible.” In the follow-up 2006 survey, similar trends were found in nurses’ perceptions of their work environments (Appendix 5). However, one difference noted was the percentage of nurses who indicated there were not “enough RNs on staff to provide quality patient care.” In 2004, 39% of the nurses in the sample indicated “not enough RNs” whereas the percentage increase to 49% of nurses surveyed in 2006.

Nurses’ perceptions of their professional practice can be found in Appendix 6. In both the 2004 and the 2006 surveys, at least 92% of the participants reported they “often felt they positively influenced the lives of patients and their families.” As well, in both surveys, 98% of the nurses reported “feeling competent to do their job” and 82% reported “satisfied with being a nurse.”

When comparing nurses’ perceptions of their work environments in 2004 according to different demographic factors, statistically significant differences were found. The differences based on work environment characteristics are shown in Appendix 7. Differences based on nurse characteristics are shown in Appendix 8. Further comparative analysis is planned to determine differences in perceptions between data collected in 2004 and 2006.

b) Oncology Nurse Retention

The results of this project provide information about oncology nurse retention. In 2004, 6.4% (39/615) of the nurses surveyed reported an intention to leave their current position (Appendix 9a). However, in 2006, this number increased to 26% of the sample (102/397) (Appendix 9b). It is recognized that the sample size is small, but this is the first longitudinal cohort study of oncology nurses to capture these data. As well, in 2006, information about respondents’ status in nursing was collected. Of the 397 participants in this second survey, 367 (93.6%) reported that they were currently still in cancer nursing, 17 (4.3%) reported they were still a nurse but no longer in oncology, and 8 (2%) reported that they were no longer in nursing (Appendix 9c). Of the eight people who left nursing altogether, five retired and the other three individuals cited their departure was precipitated by “unacceptable working
conditions” such as lack of respect for nursing staff, inflexible work day, and low staff morale. Seventeen individuals left cancer nursing for other nursing positions. Reasons for the changes included no jobs in oncology or no full-time employment positions available, opportunities for advancement found in other areas of nursing, work stress and burnout, and a wish to pursue another work in another care setting with new challenges.

c) Conceptual Model to Predict Job Satisfaction

Based on a literature review of the nursing workforce research, the career experience of research team members, findings from the team’s previous work, and results from the oncology nurse focus groups, a theoretical model of workplace factors that influence job satisfaction was developed. The model was tested using structural equation modeling and the 2004 survey data. The results of model testing using the chi square of model fit showed clear inconsistencies of the theory with the data ( =138.5, p < .000, df=52). The theoretical model was revised minimally based on theoretical assertions by the research team, and the final model fit the data well ( =58, p < .07, df=44). This model showed that factors directly influencing nurses’ job satisfaction were: positive physician/nurse relationships; philosophy of nursing; ability to influence patient care; enough RNs to provide quality care; freedom to make important patient care decisions; and supervisor support in managing conflict. The factor “relational leadership” had the strongest indirect influence on nurses’ job satisfaction. The theoretical model will be tested again as a stacked model using the 2004 and 2006 survey data. This estimation will provide important information about how the testing results changed depending on nurses’ responses in 2006, and whether important factors influencing nurses’ job satisfaction have changed over time.

PHASE II: RECRUITMENT AND RETENTION

Both nurses and decision makers participated in focus groups across the country. All focus group sessions were audio-taped and transcribed verbatim. As data were collected they were analyzed to reflect the cyclic nature of data collection and analysis in participatory action research. The underlying premise for all focus groups was that effective workplace strategies can only be attained by seeking input from both nurses and decision makers. Therefore, conducting focus groups with both stakeholder groups and sharing the information helps to ensure that recommendations are feasible, acceptable and appropriate to those affected by change (oncology nurses) and those facilitating change (decision makers).

a) Oncology nurse focus groups

In total, 91 oncology nurses participated in 12 focus groups. To stimulate discussion, preliminary findings from Phase I about nurses’ work environments were shared with focus group participants. The nurses were asked to consider the importance of the findings given the context within which oncology nursing was practiced in their work setting. There was overwhelming agreement that the number of RNs working in an oncology setting determined the quality of care that could be provided. There was also agreement that while the organizational philosophy was important, the real issue was the fit between the individual nurse’s philosophy and the organization, and the extent to which the work of the organization reflected the philosophy by its actions. The nurses made it clear that their work environments were managed but that leadership for nurses in cancer care was lacking. Most participants were over 45 years of age and had worked in oncology for over 10 years. Their expectations for retention in oncology related more to lifestyle issues of scheduling and recognition, as compared to new nurses, who wanted experience and mentoring. All nurses indicated that staff development was considered part of their organization’s goals but that it did not translate to the individual nurse or unit level programs. Attendance at conferences was problematic, even for nurses who wished to represent work conducted on their units.

Thematic analysis of the transcripts of the oncology nurse focus group revealed four themes. The first, “recognizing oncology as a specialty,” reflected discussions about the increasing incidence of cancer in Canada and the disproportionate investment in oncology education.
Nurses stated that recruitment to oncology would be enhanced if there was recognition of oncology as a specialty and curricula to support learning in the field. The second theme, “tacit knowledge no longer enough,” reflected the belief that while experiential knowledge was the deciding factor for entrance into the specialty of oncology nursing in the past, current recruitment practices should consider the knowledge gained in nursing education and the demographic trends of today’s nurse graduates. From the perspective of retention, nurses indicated that organizational investment in a learner over time is mutually beneficial. The majority of participants were experienced oncology nurses, and they made a clear distinction between the needs of new and long-term employees. They indicated a lack of acknowledgement by management for nurses’ continued contributions. Feedback that nurses were making a difference came not from the organization, but from expressions of gratitude by patients, families and peers. The fourth theme, “relationship dependent on environment,” reflected the relationships that were established within the oncology work environment. Nurses talked about the interdisciplinary team and how nursing was an important contributor to the team. One focus group used the metaphor of a spider web to describe the intricate nature of the relationships within oncology: the web may appear fragile, but it is the strength of the connections that can withstand the pressures and hold the team together.

b) Decision maker focus groups

In total, 19 decision makers participated in four focus groups. Preliminary findings from Phase I and information collected from oncology nurse focus groups were shared with decision maker participants to stimulate discussion about recruitment and retention issues. Participants shared their opinions and experiences about the effectiveness of retention and recruitment strategies that already existed at their workplaces. Discussions also included identifying new strategies to enhance oncology work environments and identifying barriers to implementing these strategies.

c) Oncology nurse and decision maker focus groups (mixed focus groups)

In total, three focus groups were conducted as teleconferences, with 15 oncology nurses and decision makers as participants. To stimulate discussion, key messages that emerged from the previous nurse focus groups and the decision maker focus groups were shared. The purpose was to develop identify key strategies that could be recommended nationally.

Similar themes emerged from the decision maker focus groups and the mixed focus groups. The first theme, “engage nurses in clinical decision-making and organizational change,” emphasized the need to maximize the scope of nurses’ practice by ensuring that they were fully engaged in clinical decision making. There was overall agreement that job satisfaction was enhanced when nurses were able to have an impact on patient care by being involved in care decisions, both independently and within the team. Nurses needed to share their knowledge, not only with other nurses from an educational perspective but also with the healthcare team, and needed to be recognized for the knowledge they possessed. The human resource leaders and nurse leaders spoke about the need for organizational recognition of excellence of work and the need to offer opportunities for professional growth that would provide meaningful contribution to the organization and ultimately to patients.

A second theme, “competition for nursing resources,” highlighted that creative targeted recruitment strategies need to begin early in the education system. All participants recognized that there will be fewer nurses available in the near future, pending retirements and shortages in nursing on the horizon. They interpreted this situation as needing targeted recruitment strategies across the system to encourage nurses to consider oncology as a career option. It was stated that while many ideas have been developed across the country, these have not necessarily been shared. The participants agreed that their organizations could benefit from the ideas that have been developed by others, and encouraged ways to share the “wealth” of the experiments that were occurring.
The theme “investment in leadership” reflected the need for relational leaders who were visible, people-centred, had a vision and philosophy that was practiced daily, and knew how to engage and develop those with whom they worked. For example, participants talked about the need for managers to identify the potential “early leavers” and set up resources to support them in the clinical setting. Some participants talked about the creation of leadership institutes to develop the cadre of leaders needed to sustain the system. Many participants believed that advanced practice nurses are providing leadership in the clinical settings by supporting nurses with education, involving them in research and organizational change, and promoting evidence-based practice.

A fourth theme, “create a core curriculum to prepare nurses for this specialized field of nursing,” surfaced as a consistent message from all the participants. Some participants believed that electives in the undergraduate level were one way of encouraging students to come into the specialty. However, all participants recognized that the paucity of oncology nursing programs across Canada was a deterrent for nurses to learn and develop their expertise to be fully engaged in oncology nursing. There was agreement that organizations should support nurses to obtain the Certification in Oncology Nursing (Canada) and that this should be a requirement for working in the field of cancer nursing.

A fifth theme, “mentorship to retain nurses,” addressed the recognition that orientation is not enough. For the most part, nurses have learned to care for cancer patients through orientation and in-service education. Notwithstanding the need identified for core curriculum, the participants believed that the standard orientation period assigned by most organizations was insufficient to prepare nurses for the clinical care of cancer patients and their families. There was unanimous support to provide ongoing nursing resource support long after orientation programs were completed, recognizing that nurses would reach a level of competence not in a month or two, but in a year. Therefore, all participants recommended that nurse mentors need to be developed in the system to work with novice nurses.

The last theme, “develop a national health human resource plan for oncology nursing,” represents the most compelling recommendation from the focus groups. It was recognized that the lack of a comprehensive plan will have an impact on the ability of the cancer system to meet the increasing cancer caseload as predicted by the Canadian Cancer Society4 and other national groups. Furthermore, models of care and types of roles for nurses need to change to meet the future requirements of care; only a national strategy would achieve this end.

V. FURTHER RESEARCH

The findings from this project set the stage for change and emphasize the urgency to develop a national human resource plan directed at oncology nursing. Without accurate databases of Canadian nurse-specific demographics, effective human resource planning targeted at meeting the nursing care needs of particular patient groups such as cancer patients is hindered at the regional, provincial and national levels.

The findings of this study echo earlier reports by nursing groups12 that the key to the nursing shortage is the “repair and renewal” of nursing work environments. In this project, nurses and decision makers provided “voice” to gain a better understanding of the factors influencing recruitment and retention in oncology nursing. The survey results provide a profile of oncology nurse work environments across the country. The focus group participants shared ideas about existing recruitment and retention strategies. Recommendations were developed about new strategies that could be implemented to strengthen work environments, retain nurses already in the system, and attract and develop novice nurses. To build upon this work, future research projects should be directed at implementing and evaluating these recommended workplace strategies, which are aimed at developing an oncology nursing workforce that will meet the needs of Canadian cancer patients and their families.
VI. REFERENCES


