



CANADIAN NURSE PRACTITIONER INITIATIVE TECHNICAL REPORT

EDUCATION CHAPTER

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1. INTRODUCTION

Nurse practitioner (NP) educational programs in Canada have evolved over time to meet diverse provincial and territorial needs. This has contributed to the growth of the NP role but has also led to variation and lack of standardization in NP educational programs across the country.

The inconsistency in NP education has contributed to a number of adverse effects for NPs overall, including a potential lack of mobility for NPs across jurisdictions, inefficient use of NP resources, and confusion surrounding the NP role among patients and stakeholders. A more coherent and consistent, pan-Canadian approach to NP education could help mitigate these adverse effects and lead to more positive outcomes. The Education Framework for Nurse Practitioners in Canada is intended to be a tool by which to achieve such an outcome. The Framework defines the broad parameters within which a pan-Canadian coordinated approach to NP education would take shape.

The original objective of the education component of the Canadian Nurse Practitioner Initiative (CNPI) was to make recommendations on five aspects of pan-Canadian NP education:

- Curriculum and programs;
- Education delivery methods;
- Continuing education;
- Prior learning assessment and recognition (PLAR); and
- Re-entry to practice.

The Education Framework for Nurse Practitioners in Canada remains true to that objective while dealing with other important aspects of NP education which are part of a holistic ‘outcomes model’ that views NP education as a continuum supported by fundamental principles, assumptions and values.

In order to achieve the development of a comprehensive NP Education Framework, an extensive *environmental scan* was conducted. This consisted of in-depth consultations with key informants and stakeholders from across Canada (see Appendix A, *Education Component – Initial Consultation Report*), a comprehensive review of literature pertaining to NP education (see Appendix B, *Education Component – Literature Review Report*), two comparative analyses of NP educational programs and their various features (see Appendix C, *Comparative Analysis of Canadian NP Educational Programs* and Appendix D, *Comparative Analysis of Canadian NP Education Program Curriculum*), and cross-Canada round table consultations (see Section 2: Legislative and Regulatory Framework, Appendix C, *Report on National Roundtable Consultations*). These last consultations involved a diverse group of stakeholders representing all provinces and territories as well as federal bodies and funding organizations.

During this same period of time, a CNPI Education Task Force was struck, consisting of two representatives from the Canadian Association of Schools of Nursing Task Force on Primary Health Care/Nurse Practitioner Education, three members of the Nurse

Practitioner Planning Network (the group that originated the CNPI), and four representatives from NP stakeholder groups from across Canada. The Task Force's primary mandate was to provide expert advice to the Education Component of the CNPI regarding the development of recommendations and strategies for the Education Framework for Nurse Practitioners in Canada.

Informed by the environmental scan, the Task Force convened a two-day consensus workshop involving NP education experts and key stakeholders from across Canada. The consensus workshop provided the foundational elements for the Education Framework for Nurse Practitioners in Canada.

The NP Education Framework is one of several strategic deliverables of the CNPI. Together these deliverables will help facilitate the CNPI's goal of developing a pan-Canadian framework to promote the sustained integration of the role of the NP in primary health care across Canada.

2. ENVIRONMENTAL SCAN METHODOLOGY AND SUMMARY FINDINGS

2.a Initial Stakeholder Consultations

Between September 2004 and February 2005, initial consultations were held with representatives of most educational institutions with NP programming across Canada and a wide variety of other stakeholder representatives from the provinces and territories with an NP educational program.¹ The participating stakeholders included students (88), educators (44), representatives of professional organizations (20), NP alumni (25), employers (7), provincial government ministries of health (5), regional health authorities (4) and Canadian Association of Schools of Nursing (CASN) representatives (12). In all, 212 representatives participated in the initial consultations. The distribution of participants is presented in Table 1.

Table 1.
Consultation Participant Distribution

	AB	BC	SK	MB	NS	NB	NL	NU	NWT	ON	QC	Fed	Total
Alumni	9		1	4	4				2	5			25
Canadian Association of Schools of Nursing (CASN)												12	12
Education Institution	5	12	3	1	3	2	2		3	9	4		44
Employer									2	2	3		7
Federal Government (MOH)													0
Other		3		1					1			1	6
Provincial Government (MOH)		1						1	3				5
Preceptor	1												1
Professional Organization (RNA)	2	3	1	1	2				1	10			20
Regional Health Authority				4									4
Student	4	18	4	3	9		2		5	39	4		88
Total	21	37	9	14	18	2	4	1	17	65	11	13	212

The bulk of the interviews were completed in person supplemented by a small number completed by telephone. As well, access to NP student perspectives was increased through website questionnaires posted by two educational programs. Written consultation notes were entered into an Excel database for sorting by data source and by theme to facilitate analysis.

The initial stakeholder consultations brought to light the following opportunities, themes, issues and challenges pertaining to NP education. As in the report itself, they are written as questions to help initiate discussions and problem-solving sessions:

¹ Appendix A, *Education Component Initial Consultation Report, 2005*

Opportunities/Themes:

- NP students bring vision, commitment and enthusiasm to their education and future practice. How can educational programs support students in a way that maintains and strengthens the characteristics they bring to the nursing profession and the health system overall?
- There is a cyclical connection between education, practice and regulation. Each impacts the other in the larger 'NP picture'. How can the expertise within each area be used to best advantage when developing a pan-Canadian framework?
- How can the commonalities and uniqueness within current NP educational programs be used as a foundation for curriculum development based upon best-practices in both general and specialty NP programs?
- There is a general consensus that national core competencies are needed to increase consistency across Canada. What processes will be used to ensure that the current core competencies are at an Advance Nursing Practice (ANP) level and acceptable to all provincial and territorial stakeholders?
- Interest was expressed in the development of centres of excellence for NP Education. What role could centres of excellence play in the research, development, standardization and delivery of NP educational programs across Canada and what steps need to be taken to make such centres a reality?
- There is a great deal of support for a master's degree as the desired exit credential. How will this support be solidified and the need clearly articulated in relation to the necessary knowledge and skills required by practising NPs?
- How can NP educational programs work together to share teaching of core course content between programs?
- How can the expertise of both PhD-prepared faculty and practising NPs be combined to provide students with the advantages of each of these resources?
- As more NP students enter practice the pool of available experienced preceptors will increase. How will NP programs work together to recruit, train and reward practising NPs to be preceptors, thereby increasing the number of available preceptors as soon as possible?
- Working with physicians as preceptors reduces barriers and potentially increases collaborative skills for both preceptor and student. How will educational institutions work with physicians to ensure their availability as preceptors and provide appropriate support for the preceptor/student relationship to ensure that the NP student continues to work within a nursing paradigm?
- How can educational programs share innovative new practices, particularly related to acquiring appropriate clinical sites, to increase the ability of each program to meet the clinical practice needs of their students?
- How can distance learning-based NP educational programs increase their sharing of resources and expertise to benefit students on a bigger scale?
- How will educational programs work together to develop collaborative partnerships or consortiums to reduce duplication and address some of the issues related to recruitment and retention of faculty?

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- Currently, informal mentoring relationships support NPs in their transition to a new workplace or a new collaborative relationship. How can the number of mentoring opportunities between practising NPs and with physicians be increased? Is there a need for mentorship training?
 - As other issues related to NP educational programming are discussed, how will issues related to re-entry to NP practice be considered?

Issues/Challenges:

- NP students face many challenges including juggling the demands of working, family and studying; finances; adjusting to a student role; and perceived lack of support from faculty or employers. How can NP educational programs ensure enough flexibility in their programs to meet the needs of all of their students?
- The profile of NP students is changing. How should NP educational programs adapt their curriculum to ensure that both very experienced and less experienced nurses leave their educational programs with the necessary clinical and theoretical skills?
- Is it possible to develop a consistent model or framework and a set of principles that can be used to guide the development of standardized NP educational programs in Canada?
- What is the ideal balance between theory and clinical courses and what is the best ordering of these classes within NP program curricula?
- A standardized NP educational curriculum would support more standardization of the profession overall. How can standardization be done in such a way as to provide the flexibility and responsiveness to student needs, community requirements, and faculty expertise and pedagogical preferences?
- How will NP educational programs work with other faculties to increase opportunities for interprofessional education for NP students?
- It will not be simple to move from the current system of varying exit credentials. How will the concerns expressed in relation to the need for graduate education in rural and remote NP practice be addressed?
- In a transition to an exit credential of a master's degree, students and practising NPs will require bridging processes and NP educational programs that will require transitional support. How will the bridging and transitional support be provided?
- How can the pool of qualified faculty members be increased?
- How will NP educational programs determine whether students or the educational program should find preceptors for the NP student clinical placements?
- How will educational programs work together to determine the number of clinical hours that should be provided to NP students as a standard in all Canadian programs?
- Distance learning provides increased accessibility to students. How will the questions related to a possible need for some face-to-face interaction and evaluation of clinical skills at a distance be answered?
- Development of national NP exams will increase standardization and credibility and ensure mobility for NPs across Canada. What is the right number and combination of exams? Is it possible to develop a two-tier exam with a general component that all NPs would write and then specialist components for each specialty?

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- How will standardization of NP exams and testing be extended to include clinical skills? Is the OSCE format a reasonable and realistic option?
 - How will currently practising NPs be evaluated prior to rostering? Will they be required to write a national exam or will they be ‘grandfathered’ in some way?
 - What are the advantages and disadvantages of combining regulatory approval and accreditation for NP educational programs into one process? Should this be considered to reduce the preparation time taken for each within an NP program?
 - What is the responsibility of the educator and what is the responsibility of the employer in preparing the NP for practice? What are reasonable expectations for preparedness for practice on the part of the NP student and the employer?
 - How will NP educational programs work together with employers to ensure that continuing education opportunities specifically relevant to NP practice are readily accessible to NPs across Canada?
 - Should a specific amount of NP continuing education be required to maintain licensure?
 - How will NP educational programs work together with provincial and territorial regulatory bodies to develop and implement consistent and fair Prior Learning Assessment and Recognition (PLAR) processes that give credit for past knowledge and experience while ensuring that NPs have all the required knowledge and skills for licensure?

Throughout the CNPI Educational component consultative process, the commitment and passion of the participants was clearly evident. They willingly contributed their time and energy to this valuable process.

2.b Literature Review

The objective of this part of the environmental scan process was to provide an overview of the literature on a range of topics related to NP education. Rather than just providing a detailed and comprehensive analysis of this literature, the review was intended to provide a context for discussions about NP education along with other companion documents in the education component environmental scan such as the *CNPI Education Component Initial Consultation Report* and the NP Educational Program Comparison Chart.

For the purposes of the study, literature was collected first from Canadian sources and then from American and international sources. Published literature was sought using CINAHL and Medline. The majority of the literature reviewed was specifically related to NPs but in a few instances when no NP-specific literature was found, the search was broadened. The Internet was searched for additional unpublished grey literature. In addition, contact with interviewees throughout the consultation process provided access to other written information. For the most part, literature sources were restricted to the last five years in order to focus on the most current research and NP education developments. All of the gathered literature was reviewed to identify key content in each document directly related to the five original goal aspects of the CNPI Education

Component. The key content was then sorted and summarized into the literature review outline. Within each section, when the volume of literature required, the Canadian literature was summarized first, followed by the international literature. Following the literature overview, emerging issues were identified in the findings section of the report.²

Previous work influenced the process and content of the literature review. In particular, the Canadian Nurses Association (CNA) document, *Advanced Nursing Practice: A National Framework* (2002), was foundational. In this document, ANP is an umbrella term that includes the role of the NP; therefore, the CNA framework contributed an important element to the literature review. Other ANP-related literature sources were included in the report for that reason. As well, documents created by the Canadian Association of Schools of Nursing (CASN) Task Force on Primary Health Care/Nurse Practitioner (PHC/NP) Education (*Canadian Association Schools of Nursing National PHC/NP Education Strategy Framework*, 2004a; *Nurse Practitioner Education in Canada: CASN Position Statement*, 2004b) were integrated throughout the literature review report.

The review of the literature shows that there are inconsistencies between NP educational programs in Canada and a significant number of areas where decisions need to be taken in order to increase standardization of NP education. The challenge of reaching consensus on these decisions is complicated by the interdependence and complexity of the factors involved. Through the literature review, many of these factors and emerging issues were identified and are listed in the form of questions as a starting point for problem-solving discussions, as follows:

- How will collaborative working partnerships between educational programs be set up to support NP programs in a transition to standardized exit credentialing and other program changes?
- How will a common national philosophy for NP education be developed when faced with the current lack of consistency between NP programs?
- How will national core competencies be integrated with the development of a guiding framework and curriculum content in a way that can support standardization of NP educational programming in Canada?
- What is the ideal balance between clinical and theoretical content in NP programs?
- What content areas need further emphasis in NP educational programs? (i.e., quality control, informatics, interdisciplinary education, and research into client outcomes and educational best practices)
- Should there be a standardized exit credential for NP educational programs and what should it be?

² Appendix B, *CNPI Education Component Literature Review Report*, 2005

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- Is faculty clinical competence best achieved by training PhD faculty as NPs or by providing practising NPs with training as educators?
 - What is the ideal length of a preceptor/student relationship and should NP students find their own preceptors?
 - How much clinical experience should an NP student have before entering an NP program and how can NP programs best work with the differences in knowledge and skills of the nurses entering their programs?
 - How will decisions be made regarding the combination of NP educational programs that would benefit the most from collaborative program delivery?
 - What is the responsibility of the NP educational program and what is the responsibility of the employer related to preparedness for practice? How long is it reasonable to expect an NP to take to become comfortable in a practising role after graduation?
 - How can the realities and advantages of distance education be combined with the advantages of face-to-face learning?
 - What is the best combination of methods (i.e., face-to-face, on-site, distance technology, simulated patient encounters) for evaluation of clinical skills including the ‘softer’ interpersonal skills?
 - How can partnerships be developed between employers and educational institutions to develop continuing education specific to the learning needs of NPs in practice?
 - How will NP educational programs and regulatory bodies work together to develop consistency in PLAR processes and re-entry to practice programs?
 - How can developing technology be put to the best use for distance learning, evaluation of NP student skills and continuing education?

2.c Comparative Analyses of Educational Programs

Comparative analyses were undertaken to investigate the similarities and differences in NP educational programs across Canada.³ Information was obtained through response from e-mail requests to NP program faculty and from program websites. Two different analyses were undertaken: one to understand educational programs in general and one to understand similarities and differences in program curriculum.

2.c.i NP Educational Program Comparison

³ Appendix C, *Comparative Analysis of Canadian NP Educational Programs*, CNPI, 2005

The following series of tabulations presents a summary comparison of Canadian NP educational programs (as of November 2005):

- **Number of programs:**
 - Current:
 - PHC: 12
 - Acute Care: 8
 - Combined: 3
 - **Total:** 23
 - Pending (By Fall of 2006):
 - PHC: 1
 - Acute Care: 1
 - **Total:** 2
 - **Overall Current and Pending Total:** 25

- **Number of Institutions Involved:**
 - Current: 28
 - By Fall of 2006: 33

- **Exit Credential Granted:**
 - Current:
 - Post-RN Certificate/Diploma: 3
 - Post-Baccalaureate Certificate/Diploma: 2
 - Master's: 13
 - Master's or Post-Master's Certificate/Diploma: 4
 - Post-Master's Certificate 1
 - **Total:** 23
 - Both pending programs are at the master's level

- **Entry Requirements (Years of Experience):**
 - 1 year: 2
 - 2 years: 17
 - 3 years: 1
 - Unknown 3

- **Length of Program:** 12 months-2 years FT (all master's or post-master's are two years), with all programs having a PT option

- **Clinical Hours:** 370-980 hours (only 5 programs under 700 hours)

- **Delivery Methods:**
 - Classroom only: 7
 - Distance only: 2
 - Both: all others

-
- **PLAR:**
 - Yes: 10 (all post-RN and post-baccalaureate programs offer PLAR)
 - No: 12
 - Unknown: 1

 - **Ability to Transfer Credits:**
 - Yes: 14
 - No: 8
 - Unknown: 1

 - **Annual Student Intake Numbers:**
 - 10 or under: 8
 - 20 or under: 8
 - Over 20: 3
 - Unknown: 4

 - **Clinical Placement Arranged by Program or Student:**
 - Program: 13
 - Student: 1
 - Both: 8
 - Unknown: 1

 - **Number of NP Faculty:** 61 (but some are PT)

 - **Preceptor Incentives:** Only 4 programs offer an honorarium; some programs do not offer anything and most programs offer incentives other than an honorarium.

 - **Base Funding or Cost Recovery:**
 - Base Funding: 17 (Many by ministries of health rather than education)
 - Cost Recovery: 4
 - Unknown: 2

 - **Total Tuition Costs:** From \$5,518 to \$12,500 per year

2.c.ii Curriculum Comparison Chart

The intent of the development of this comparison chart⁴ was not to take an in-depth look at the content of NP programs offered by colleges and universities, but instead to gain a broad understanding of the types of courses which are offered and to understand if the courses are generally aligned with the general requirements for ANP (CNA 2002) and with the Canadian NP Core Competencies. An assumption was made that the course titles reflected the content of the course. For example, the content of a course titled

⁴Appendix D, *Comparative Analysis of Canadian NP Educational Program Curriculum, 2005*

Advanced Pharmacotherapeutics was assumed to include information on pharmacotherapeutics related to NP practice.

Review of the course titles of NP programs revealed general consistency in curriculum in all colleges and universities across Canada among courses that address NP core competencies. However, the master's and post-master's programs offer separate courses in nursing theory, research and the role of NP. The post-diploma/post-baccalaureate programs do not offer separate courses in nursing theory or research; however, there are separate courses on the role of the NP.

The comparison was limited to theory courses. Therefore, although most courses offer separate course titles for clinical courses, these titles were not included in the analysis.

2.d Round Table Consultations

An integral part of this environmental scan process for the Education Component of the CNPI were the findings from seven Round Table Consultations (RTCs) held in cities across Canada from April 19 to May 6, 2005.⁵ Participants were invited to discuss issues and opportunities outlined in workbook format that were a summation from literature reviews and from the initial round of stakeholder consultations. The purpose of the RTCs was to obtain further input and direction from knowledgeable individuals in order to vet the findings presented in the workbook and to discuss how to overcome the issues while identifying opportunities for change.

Specific questions for the education section revolved around the identification of principles and characteristics that would be foundational to a pan-Canadian NP education and a standardized exit credential.

Findings from the Round Table Consultations in regard to the core characteristics identified that are essential to a pan-Canadian NP educational framework included:

- Interprofessional education;
- Use of varied distance delivery methods (to ensure access to education for rural and remote communities);
- Consistent core curriculum which includes clinical practice and leads to knowledge that can be tested by a national exam;
- Continuing education (and whether it should be mandatory or not); and
- PLAR (particularly for nurses practicing in NP-like roles).

Other suggestions and ideas that emerged relevant to NP education were:

⁵ Section 2: Legislative and Regulatory Framework, Appendix C, *National Roundtable Consultations Report*, CNPI, 2005

Clinical practice: that the minimum number of years required to enter a program be two years and that a minimum of 600 clinical hours be required during the program of study.

PLAR: that the PLAR process which could be used for entrance into an NP educational program should be a combination of a learning/practice portfolio that is peer-reviewed and includes an employer reference. A written exam could be included.

Replacement of NPs: there needs to be some sort of circular replacement program by newly educated NPs for nurses in the North who return to education (where there are few NPs/nurses in practice and therefore few staff to replace the nurses who have to leave for educational purposes).

Specialty streams: that there should be an NP core curriculum plus specialty streams.

Preceptors: that the importance of preceptors and their preparation be acknowledged; that there should be consideration of the notion of a post-NP fellowship/preceptorship.

Educational deductions: that the tax law be revised so that NPs could benefit from educational tax deductions in a manner similar to physicians.

Shortage: that consideration be given to whether the overall shortage of nurses would impact NPs entering the NP program.

Standardized exit credentials: that the exit credential should be a master's degree that requires clinical practice hours. That a transition period for this implementation would be necessary.

After graduation: that a national exam for licensing be considered as well as regulatory requirements for continuing education.

2.e Education Consensus Workshop

In June of 2005, the NP Education Task Force convened a two-day consensus workshop in Calgary involving NPs, educators, employers, legislators, regulators and students from across Canada. A total of 47 representative delegates participated in the workshop. Throughout the workshop, delegates, informed by the background research and comparative analysis obtained through the environmental scan, worked in groups and in plenary to develop consensus positions and recommendations around key issues pertaining to NP education. The output from the workshop was then reviewed and vetted by a Forum Recommendation Group comprised of members of the NP Education Task Force.

The key issues and themes that guided the workshop process were structured around an outcomes-oriented model of NP education. During the workshop, delegates worked

towards consensus surrounding key questions and trial statements. Delegates came to agreement on most of the key issues and questions put forth. Where no agreement could be reached, this was also noted along with the reasons why. Key considerations and discussion points for all questions and trial consensus statements were noted throughout the process. In addition to serving as important ‘qualifiers’ to many of the consensus positions, they provided important insight into the thinking behind the areas of consensus.

As the culminating ‘action phase’ of the extensive environmental scan process that preceded it, the NP Education Consensus Workshop provided the basis for the recommendations and supporting rationale contained in the Education Framework for Nurse Practitioners in Canada.

3. SYNTHESIS FINDINGS

This section presents synthesized findings and supporting evidence from the CNPI Education Component environmental scan.

- *Considerable variability exists among NP educational programs throughout Canada.*

Inconsistencies and variability in NP educational programs have been noted in past studies including a 2001 survey of the nature of the extended/expanded nursing role in Canada (Centre for Nursing Studies 2001) and a 2003 CASN Task Force survey of all Canadian colleges and universities offering PHC/NP educational programs. Internationally, NP educational programs are also diverse due to the sensitive, emerging, and evolving nature of the NP role (ICN 2003). The comparative analysis of Canadian NP educational programs highlights specific areas of current variability in Canada:

- ⇒ Of the 23 existing NP programs, 12 are primary health care, 8 are acute care and 3 have combined primary health/acute care programs. Eighteen of the 23 existing NP programs confer a master's degree or higher as their exit credential and both pending programs will also be at the master's level.
- ⇒ The duration of existing programs ranges from 12 months to 2 years.
- ⇒ Thirteen programs offer classroom plus distance education options; 7 offer classroom education only and 2 offer distance education only (1 unknown).
- ⇒ Twelve programs offer PLAR while 10 do not (1 unknown).
- ⇒ Fourteen programs offer credit transfer while 8 do not (1 unknown).
- ⇒ Responsibility for clinical placement varies among programs. Thirteen programs arrange for student clinical placement; in 8 programs, students and program staff are jointly responsible for clinical placement; and in 1 program students are exclusively responsible for their clinical placement (1 unknown).
- ⇒ The number of clinical practice hours required by existing programs ranges from 370 to 980.
- ⇒ Tuition costs range from \$5,518 to \$12,500 per year.

Interviewees in the consultation process felt that there was no real evidence in the literature regarding NP education to guide program development. Currently NP programs across Canada follow different models and incorporate a variety of principles. A program may or may not ascribe to a particular vision or model. Some central principles and concepts identified within programs included: Primary Health Care (PHC), community development, critical thinking, collaboration, leadership and evidence-based care. Other program differences were noted. For example, some programs are life-stage developmentally based to cover all conditions and subsequent care within age groupings such as pediatrics, mid-life, and older adult. Other programs are functionally based within core courses such as health assessment, clinical decision-making, pharmacotherapeutics and research. Some programs start with a common core curriculum followed by specialization courses while other programs offer only a

specialization stream. The balance between theory courses and clinical experience also varies between programs.

- ***Support for a coordinated approach and a consistent model or framework for NP education across Canada is strong among all stakeholders.***

Standardization of NP programs was recommended by interviewees during cross-Canada consultations. For example, it was felt that common curriculum and equivalent number of clinical practice hours across programs would increase the portability of NP practice between provinces and territories and ensure resource mobility. Standardization would also help to clarify the roles, define practice and increase value. Interviewees said that curricula need to be connected to practice and regulation (e.g., diagnosis, testing and pharmacotherapeutics) as well as to core competencies, and that NP practice must be clearly articulated in order to become the foundation for educational development.

A review of the literature related to NP educational programs points to the need for a framework to guide NP curriculum development. Various frameworks found in published literature have been used to organize thinking about NP education in Canada, the United States, Australia, and elsewhere. In 2003, the CNA recommended that stakeholders work together to achieve a national coordinated framework that would, together with other outcomes, strengthen NP educational programs (CNA 2003).

During CNPI cross-Canada consultations and the CNPI NP Education Consensus Workshop, representative stakeholders demonstrated a willingness to work towards standards, principles and guidelines that would form the basis of a pan-Canadian framework.

- ***Greater standardization of NP education is seen as necessary to support standardization of the profession overall.***

Many interviewees recommended a standardized NP educational curriculum across Canada leading to more standardization for the NP profession overall. Stakeholders felt that standardized NP educational programs would increase the credibility of NPs among other professional groups but that the delivery of standardized programs would need to remain flexible and responsive to the needs of students, faculty and communities.

Both in the literature and in stakeholder consultations, standardization is closely linked to the credibility of NP education and to the NP role and profession. Standardization does not mean that programs cannot be flexible or unique. However, it is generally accepted in the literature and by stakeholders that all programs should be guided by a common framework underpinned by a uniform set of core competencies.

- ***There is overwhelming support for the notion that NP education be grounded by certain fundamental philosophies, assumptions and values central to the***

nursing profession and leading to the goal of generating positive health outcomes for Canadians.

The literature has shown that there are many ways to structure the curricula of NP educational programs. The challenge in Canada will be to find a common national philosophy and framework for NP education that is broad enough to provide structure for the variety of NP programs that will be needed to meet the requirements of all stakeholders.

Philosophy, principles and values are seen as foundational to NP education. For example, the U.S. National Organization of Nurse Practitioner Faculty (NONPF) *Curriculum Guidelines and Program Standards for NP Education* (1995), which is the only existing NP education framework that exists at present, states that “a philosophical position shapes the content and process of any curriculum framework and development” (p. 1). NONPF articulates guiding principles, assumptions, values and beliefs that it feels should be reflected in every aspect of NP curriculum.

Stakeholders engaged in the CNPI consultation and consensus process strongly supported the notion of philosophies, assumptions and values as being foundational to NP education and, therefore, to any NP education framework. During the CNPI’s NP Education Consensus Workshop, delegates articulated the philosophies, principles, values and assumptions they felt should underpin an NP education framework. For example, stakeholders felt strongly that NP education must be grounded in nursing theory, be client centric and reflect principles of adult learning.

- ***There is wide agreement that prior learning assessment and recognition (PLAR) has an important role to play in facilitating entry and access to NP programs and that more needs to be done to increase and harmonize such processes.***

PLAR is an important component of the transitional support that will be required as Canada moves toward standardization of NP education and licensure. Interviewees, particularly employees and the NPs themselves, felt there needs to be greater access to PLAR processes for nurses working in NP-like roles. PLAR was seen as important to getting equivalency or credit for previous knowledge or experience. Flexibility with the PLAR process was seen as essential. It was felt that PLAR processes needed to be based upon a clear definition of the NP role and an NP practice framework.

During the Round Table Consultations, it was suggested that PLAR should be a combination of learning/practice portfolio that is peer reviewed and that includes an employer reference. There was also a suggestion that a written exam could be included.

The literature indicates that PLAR is a widely accepted practice although many barriers and challenges exist with respect to its application. The literature points to a need to develop national benchmarks to guide the practice of PLAR.

In consultations, stakeholders viewed PLAR processes as supporting program flexibility while facilitating access to those working in NP-like roles, to applicants from outside Canada, or to those with relevant experience from outside the nursing profession. There was broad consensus among stakeholders that NP education must embrace the concept of PLAR and that programs must work cooperatively to implement PLAR processes.

- ***Generally accepted national core competencies are viewed as a means to increase consistency in NP education across Canada.***

Current literature indicates that core competencies are an essential element to consider when developing NP educational programs and selecting guiding frameworks. Increasingly, emphasis is being placed less on the exit credentials of NPs and more on the competencies that NPs demonstrate as a result of their educational experience (CNA 2002). In a survey of NP programs, respondents identified a lack of formally identified competencies for the NP role in practice as one of the barriers encountered in the delivery of their educational programs (Doucette & Sangster-Gormley 2004).

Overall, stakeholders saw the *Canadian Nurse Practitioner Core Competency Framework* as a positive move forward in improving consistency on a pan-Canadian basis. It was felt that this Framework provides the basis for the development of consistent NP education curriculum and content. Stakeholders saw the need to regularly review core competencies to ensure their ongoing relevance.

- ***Many NP educational programs in Canada and internationally now teach to the master's level. A master's degree is becoming the de facto standard for NP education in Canada and abroad.***

Comparative analysis of NP programs across Canada indicates that most programs (18/23) are now teaching to the master's level or above. Currently, both the CNA (2002; 2003) and the CASN (2004a, 2004b) recommend graduate education to prepare nurses for NP practice. A graduate degree provides a credential that can be evaluated for equivalency from one area of Canada to another, thereby ensuring mobility for practitioners. The CNA (2002) has noted that as more provinces and territories require baccalaureate preparation for entry into the nursing profession, the requirement of a master's degree for NPs becomes increasingly feasible. They also firmly position NP practice as advanced nursing practice and posit that ANP requires graduate education.

Internationally, the American Academy of Nurse Practitioners (AANP) also supports entry level preparation for NP practice at the master's degree level (AANP 2003). In the United Kingdom there is growing recognition that the role of NP needs to be formally accredited at a higher academic level than that of nurses (Daly and Carnwell 2003). In New Zealand, NPs are required to have at least four to five years of experience in their chosen clinical area along with a master's degree (Nursing Council of New Zealand as cited in CNA 2002).

Stakeholder consultations overwhelmingly favoured master's degree preparation for NPs. The overall consensus in the Round Table Consultations (RTCs) and the NP Education Consensus Workshop was that NP education and exit credential should be at the master's level.

- ***Stakeholders and especially NP students value flexible learning options and mechanisms that will enhance mobility and transferability across jurisdictions.***

During the consultation process, students spoke about the challenges they face advancing their education including balancing studies with either full-time or part-time work, the demands of family life, and dealing with financial pressures. Students suggested that there needs to be flexibility in NP programs to enable them to respond to these demands and pressures.

Other stakeholders supported the need for flexible learning options, including greater access to PLAR processes, transfer of credit, and distance education. Flexible learning options were seen as a natural outgrowth of increased collaboration among programs. It was noted that the CASN has called for more collaboration among NP educational institutions across the country with a view to supporting joint delivery of virtual programs, linking learners with experts, focusing on special expertise and providing mechanisms for NP students to move across institutions to meet their learning needs (Canadian Association of Schools of Nursing, 2004c).

There was strong consensus and support among stakeholders for bridging mechanisms (e.g., grandfathering, PLAR) to facilitate transition of NPs from existing standards to new or emerging standards, including master's degree preparation. Stakeholders cautioned that bridging mechanisms based on evidence of competency can be costly to implement and support from employers and government will be essential.

- ***NP educational programs are receptive to exploring opportunities for increased collaboration, including sharing faculty resources, increasing the availability of preceptors, sharing innovative practices, and creating consortia.***

There was strong support among stakeholders for increased collaboration among NP educational programs and institutions. Indeed, there was consensus that collaboration is a vital component of any consistent, standardized approach to NP education. There was also recognition that collaboration, especially on pan-Canadian approaches, will not happen without impetus from the appropriate bodies. In Ontario, the Council of Ontario University Programs in Nursing (COUPN) consortium serves as one model of how institutions are already working together to deliver NP programs.

Stakeholders felt strongly that increased collaboration in the delivery of NP educational programs would reduce duplication, extend access, and overcome some of the difficulty related to recruiting and retaining qualified faculty. They see increased collaboration as a

means to support standards ultimately leading to improved mobility and they also say collaboration is needed to help ensure availability of suitable NP preceptors.

The literature, both in Canada and internationally, supports the view that increased collaboration among NP educational institutions has many potential benefits. The literature suggests that collaboration can occur in many forms, including joint delivery of virtual programs, linkage of learners to experts, and facilitating access to special expertise across institutions. The centre of excellence concept, whereby NPs in rural or remote communities could access expert resources about particular subject matter, is one that is gaining credence.

The literature points out that fostering collaborative arrangements is not without its challenges. These challenges include facilitating effective communications and integration among institutions, providing equitable access to preceptors, the cost of technology and technical support, and promoting professional socialization among students.

- ***There is considerable variation across NP programs in the number of clinical hours required of students in order to graduate from their program. There is strong support for standardizing this requirement.***

The amount of clinical experience varies significantly among NP programs. Finding appropriate opportunities and sites for clinical practice remains a challenge for many NP programs. In some programs the student is responsible for arranging their own clinical placement; in others, the program assumes that responsibility. Much can be learned from programs that have developed innovative ways to secure more clinical sites. More rather than fewer clinical hours are thought to be needed if NPs are to work to their full scope of practice, especially as NPs gain legislative authority for more independent practice. However, there has been no research as to what constitutes the ‘right’ number of hours.

Both Canadian and international literature emphasize the need for practical experience in NP educational programs. Studies indicate that physician confidence in nurses’ abilities can be influenced by the nurse’s clinical preparation. In one study (Gibson and Hauri 2000) physician and NP preceptors felt that students needed at least three years of basic medical/surgical experience *before* entering clinical courses. However, it is noted that NP educational programs often have limited time and resources for students to learn clinical skills *during the program*.

Criteria for evaluation of the clinical aspects of NP educational programs in the U.S. are listed by the National Task Force on Quality NP Education (2002). These criteria include a minimum of 500 supervised clinical hours overall with additional hours for specialty tracks that provide care to multiple age groups or multiple care settings.

Stakeholders in the Round Table Consultations favoured setting standards for the number of clinical hours required to become an NP with some favouring 600 clinical hours as the

minimum. Stakeholder delegates to the NP Education Consensus Workshop felt that a standard number of clinical practice hours for NP educational programs across Canada would help ensure consistency and clinical competence. The standard number of clinical hours reached following the Consensus Workshop was 700.

- ***Stakeholders have favourable views towards distance education and its ability to promote access but questions remain including: how to ensure quality, how to share resources, how to ensure collaboration and interactivity, and how to conduct student evaluations, among others.***

In consultations, stakeholders emphasized that distance learning programs make NP education more accessible to students, allowing them to take courses while living and working in their own communities. Distance learning can be used to bridge or upgrade competencies and to achieve higher education. Stakeholders noted that given that the technology exists to support distance learning and sharing of resources; it is no longer necessary to have the same courses taught in every university.

Stakeholders cautioned that distance learning approaches require support so that students can focus on learning rather than technology. Opportunities for interaction with faculty and other students both online and face-to-face are considered to be important to the success of distance learning programs. Assessing clinical and academic performance can also be a challenge when distance learning approaches are employed.

Many studies point to the advantages and limitations of distance learning. Key advantages supported by the literature include convenience (i.e., less travel), flexibility (i.e., balancing work and family responsibilities) and choice (i.e., service to remote areas). While distance education is accepted as a practical reality, many studies highlight significant challenges including course design, technical support, interactivity, student evaluation, monitoring quality, and attrition.

In general, stakeholders demonstrated strong support for distance education but recognized that more needs to be done to identify and address limitations and to ensure that norms and standards are maintained.

- ***Stakeholders felt more needs to be done to understand and encourage interprofessional teaching and team learning approaches.***

During consultations, stakeholders identified interprofessional education as one of several key principles central to a pan-Canadian NP education framework. Interprofessional practice involves multidisciplinary teams (e.g., NPs, physicians, pharmacists, social workers) working together for the benefit of patients. Stakeholders felt that students gain valuable first exposure to the team-based care model as interprofessional learners. Stakeholders believe more needs to be done to support innovative approaches to team-based learning.

The *Report on the CASN/FHIB Workshop on PHC/HP Education* (CASN 2004c) specifies that health professionals need to be educated in a way that promotes team-based practice using inclusive language, with review and redesign of the current discipline-specific methods of education. This should begin at the undergraduate level, particularly in institutions that educate a variety of health-care disciplines and should be supported by interprofessional and inter-disciplinary research, education and practice.

The literature suggests that in Canada there is a lack of interprofessional education both at the undergraduate and graduate levels (Way, Jones, Baskerville & Busing 2001). Current data supports the view that strategies to improve team-based practice involving NPs could assist in improving care delivery within currently available resources. Although there is a commitment to interprofessional education in Canada and abroad, there is a lack of definition of what that means in practice. Several factors have been posited as possible barriers to interprofessional education, including: a lack of research on practice and patient impact, fear of losing professional identity, and fear of diluted power relationships (Greiner & Knebel 2003).

- ***Many jurisdictions have moved to standardized exams for NPs. Stakeholders agree that national standardized examination is the appropriate method to license/register prospective NPs.***

Many stakeholders supported the concept of a standardized national exam similar to the RN model for licensing of NPs in Canada. Interviewees said that a national exam could be a unifying force for programs across Canada. A national exam was thought to be good for professional credibility and for enhancing mobility/portability. While agreeing in principle, some stakeholders raised questions and concerns about practical aspects of a national exam, including the costs to develop and administer the exam, how to differentiate between generalist and specialist streams and who will need to write the exam. Some stakeholders were of the view that more than one national exam is required to allow for testing of NP specialties or streams. Stakeholders pointed out that national examination needs to cover the full scope of general NP practice. There was also consensus among stakeholders that national examination will ensure uniform testing to national NP core competencies.

- ***Employers and educators were seen to have a joint responsibility to work together to promote smooth transition of novice NPs to the workplace.***

Stakeholders pointed out that NP expertise continues to be gained through on-the-job experience. Many NPs spoke of facing steep learning curves as they transitioned to the workplace. Some NPs stated that it took them two years to be comfortable in their new roles. Employers spoke of the effort required to help NPs become fully oriented and practice-ready in the workplace. NPs reported widely varying amounts of employer orientation to the workplace, ranging from none at all to as long as six months. Stakeholders believe strongly that NPs need support as they transition to the workplace. They stressed that the challenge is to find the proper balance of responsibility between

educational institutions and employers in terms of preparing NPs for their practice roles. The overwhelming consensus among stakeholders was that educators and employers must work together to determine and carry out their joint responsibility in assisting novice NPs with this transition.

At least one study (Centre for Nursing Studies 2001) suggests that there needs to be a better match between what employers expect of extended/expanded roles for nurses and what they had been prepared to do in their educational programs. The implication is that the need for orientation and related transition programs depends in part on the NP programs themselves. In a study conducted by IBM Business Consulting Services (2003) respondents indicated that they did not feel educationally prepared when they first started practising.

Stakeholders felt that educators are well-positioned to obtain valuable feedback on how well former students are adjusting to the workplace. There was a consensus that educators and employers need to collaborate more on transition approaches.

- ***There is an ongoing debate as yet unresolved as to the best methods of ensuring continuing competency of practising NPs. There is universal support for the notion that NPs have a professional responsibility to ensure ongoing competency and that standardized assessment tools be available to facilitate competency self-assessment.***

In round table discussions, stakeholders felt that continuing education must be considered but they are undecided about whether it should be mandatory. Stakeholders suggested that there needs to be a defined expectation for NP continuing education just as continuing medical education (CME) credits are required by physicians. Stakeholders also felt that NPs need to take responsibility for their own ongoing learning, including identifying needs and taking steps to address those needs through self-directed learning and other means.

Practising NPs said that it would be beneficial to have more focused continuing education opportunities with more primary care and ‘hands-on’ skill content. Stakeholders noted that most NP educational programs do not have formalized continuing education programs for NPs. As a result, NPs sometimes access continuing education through avenues available to medical residents or physicians such as medical educational sessions and conferences.

The consultative data indicate that there is a need for increased access to continuing education that is specific to the ongoing needs of practising NPs, a finding that is supported by current literature. The CNA’s position is that nurses in advanced practice need to support their practice through participating in lifelong learning and continued competence development (CNA 2002).

Studies (e.g., IBM Business Consulting 2003) point to a number of barriers to continuing education including availability, access, cost and time. At the same time, technology enablers such as the Internet have been successfully used for nursing continuing education and have become a rich source of information (Zimmerman, Barnason & Pozehl 1999; Hayes & Huckstadt 2000).

Although the literature suggests that the responsibility for continuing education for NPs is a shared one, the consensus among stakeholders is that NPs must rise to the challenge by embracing lifelong learning approaches designed to ensure continuing competency. While there is ongoing debate about whether continuing education should be mandatory, stakeholders do support the application of standardized tools and guidelines to promote demonstration of continuing competency.

- ***Stakeholders support the view that standardized refresher training should be required to maintain licensure following a specified period of absence or when NPs have not been working to their full scope of practice.***

For a variety of reasons, some NPs may decide to exit the profession and then re-enter after a period of time; others may not have the opportunity to work to their full scope of practice. There is a dearth of literature specifically addressing re-entry to practice of NPs. However, studies do point to increasing use of refresher courses by registered nurses who return to practice. One study (Hawley & Foley 2004) described a structured refresher course with 124 hours of formal review and 128 clinical hours. The authors noted that many nurses returning to nursing desired a structured, interactive, supportive learning environment where their own life experiences were valued. Another study (McLean & Anema 2004) made note of the option of self-directed courses to prepare nurses to re-enter practice. The authors stated that an individualized refresher course was more accessible no matter where the nurse lived and that this reduced their barriers to re-entering the profession.

Research and anecdotal evidence suggests that re-entering nursing practice can be challenging. Waibel (2002) points out that it is important to recognize the strengths of the returning nurse and reinforce those strengths during orientation. McLean and Anema (2004) outlined specific strategies that employers can implement to attract inactive nurses back into the profession, including offering refresher courses.

Stakeholders felt that, in circumstances where NPs have been absent from practice, NPs need to be able to renew their competencies. Furthermore, the decision reached by stakeholders during the CNPI Education Consensus Workshop was that standardized refresher training should be required to maintain licensure to practise as an NP following a specified period of absence or in situations where an NP has not practised to full scope.

4. CNPI EDUCATION COMPONENT RECOMMENDATION

Adopt the Education Framework for Nurse Practitioners in Canada to facilitate consistency in federal, provincial and territorial education approaches.

5. EDUCATION FRAMEWORK FOR NURSE PRACTITIONERS IN CANADA

The Education Framework for Nurse Practitioners in Canada is a separate document that follows this report.

6. CONCLUSION

Considerable variation currently exists in NP education in Canada. This inconsistency has contributed to a number of adverse effects for NPs overall, including a potential lack of mobility for NPs across jurisdictions, inefficient use of NP resources and confusion surrounding the NP role among patients and stakeholders. A more coherent and consistent, pan-Canadian approach to NP education could help mitigate these adverse effects and lead to more positive outcomes. The Education Framework for Nurse Practitioners in Canada is intended to be a tool by which to achieve such an outcome. The Framework defines the broad parameters within which a pan-Canadian coordinated approach to NP education would take shape.

The Education Framework for Nurse Practitioners in Canada and the recommendations it contains are the culmination of an extensive environmental scan and consensus process involving hundreds of key informants, participants, delegates and stakeholders. The Framework is not a detailed plan; rather, it is meant to serve as a forward-looking guiding document which points the way to a more consistent and standardized approach to NP education across Canada for the benefit of all stakeholders. The Framework is a tool that speaks to a variety of stakeholders including program leaders and educators, regulators, students, NPs, employers, and others. It is expected that individual stakeholders will use the Education Framework to guide and inform their future planning efforts. In this sense, the Framework presents an important blueprint for action and change.

This chapter outlined the steps taken to reach the ultimate development of the Framework. It shows why decisions were made to include the actions that are included in each element of the Framework. In this way, both the Education Framework for Nurse Practitioners in Canada and the Education Chapter of the CNPI Technical Report are meant to contribute to the CNPI's overall goal of developing a pan-Canadian framework to promote the sustained integration of the role of the NP in primary health care across Canada.

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