



APPENDIX A

Health Human Resources Component

Initial Consultation Report

Stakeholders Perceptions of Key Factors Influencing Health Human Resource Planning for Nurse Practitioners in Primary Health Care

January 2005

Prepared by: Dr. Christine Way

The Canadian Nurse Practitioner Initiative (CNPI)

Canadian Nurses Association, 50 Driveway, Ottawa ON CANADA K2P 1E2
Tel: (613) 237-2133 or 1-800-361-8404; Fax: (613) 237-3520

www.cnpi.ca

Initiative canadienne sur les infirmières et les infirmiers praticiens (ICIIP)

Association des infirmières et infirmiers du Canada, 50, Driveway, Ottawa ON CANADA K2P 1E2
Tél.: (613) 237-2133 ou 1-800-361-8404; Téléc.: (613) 237-3520

www.iciip.ca

Funding for the Canadian Nurse Practitioner Initiative was provided by Health Canada.

L'Initiative canadienne sur les infirmières et les infirmiers praticiens est financée par Santé Canada.

Table of Contents

<i>Executive Summary</i>	3
1. Introduction.....	5
2. Methodology.....	5
2.1 Population and Study Sample.....	5
2.2 Data Collection.....	5
2.3 Analysis.....	6
3. Results.....	6
3.1 Production (Education and Training).....	7
3.2 Resource Deployment and Utilization.....	10
3.3 Management, Organization, and Delivery of Health Services.....	11
3.4 Financial Resources and Union Issues.....	14
3.5 Population Health and Provider Outcomes.....	16
4. Conclusion.....	17
Appendix A.....	18

Executive Summary

The impetus for the current project came from the Nurse Practitioner Planning Network. The overall objective of the project was to identify the most effective mechanisms and strategies for integrating and sustaining the nurse practitioner (NP) role in primary health care in Canada. As a framework for reviewing a broad range of separate and interactive considerations, project objectives were focused on five areas: 1) educational preparation; 2) practice; 3) government legislation and professional self-regulation; 4) health human resource planning; and 5) change management, social marketing, and strategic communication. The following report is focused on the health human resource (HHR) component.

Consultations were held with approximately 100 representatives of different stakeholder groups across Canada over a five-month period (September 2004 through January 2005). Based on a review of relevant literature and discussions with experts in the field, an interview schedule was developed to address key factors influencing global and local HHR planning for the NP role in primary health care.

Participants were asked questions related to population health needs, supply of providers, production, financial resources, and unionization, among others. Interview notes were analyzed using qualitative methods to identify themes related to the research questions. Although a broad range of themes were identified during the analysis, it was possible to collapse them into five meaningful categories.

Overall, the findings indicate that there are obstacles impeding meaningful planning for and successful integration of the NP role in primary health care. Despite these obstacles, the general consensus was that identified barriers could be removed with strategic interventions. A brief summary follows on the key thematic areas identified from the data.

- An important theme was the fact that educational and competency standards for NPs across Canada are inconsistent. Although most stakeholders in all provinces/territories supported baccalaureate preparation of NPs as a future goal, there was no consensus on the usefulness of graduate education. With different perspectives taken in various provinces/ territories, concerns were raised about creeping credentials and varying competency levels. Disagreements on expected education and competency levels for NPs were attributed to the nursing profession's inability to clarify the parameters of advanced practice roles.
- Lack of uniformity in educational preparation and expected core competencies were viewed as having negative effects on the supply of NPs, the demand for their services, and effective utilization and deployment of nurse practitioners in primary health care. Another key factor influencing the resource deployment and utilization theme is the legislative/regulatory suggestion that NPs work closely with physicians in some type of collaborative practice. If this requirement is too

restrictive, then serious limitations are imposed on NPs employability and, ultimately, their effective utilization and deployment in primary health care.

- The third theme relates to the management, organization, and delivery of health services. Stakeholder comments from different provinces/ territories revealed a wide variation in collaborative practice models and the level of NP role integration. Despite the presence of innovative collaborative models in primary health care, there is incomplete understanding and acceptance of the concept of overlapping roles and collaborative relations, especially by physicians. Restrictions imposed on nurse practitioners' scope of practice by legislative/regulatory bodies, employers, and/or related legislation and policy also influence meaningful role integration. The absence of a consultative framework to facilitate discussion among key stakeholders, the system for physician remuneration and public support are additional contributing factors.
- A fourth theme identified concerned financial resources and unionization. The absence of a dedicated budget in most provinces/territories to fund the NP role in primary health care was identified as an important barrier to effective HHR planning. The fee-for-service payment structure for physicians was also seen as a major barrier. Stakeholders stressed the importance of having strong nursing leadership, greater clarification of the NP role, and supportive others (e.g., CEOs, physicians, etc.) at local and provincial levels to facilitate role acceptance and implementation. Although union benefits such as fair and equitable salaries and workloads were identified by several stakeholders, there was general opposition to the unionization of NPs.
- The final theme, population health and provider outcomes, has received limited attention in most provinces/territories. Many stakeholders acknowledged that there is insufficient empirical data to support evidence-based decision-making with regard to the actual number and qualifications of NPs needed to facilitate optimal population health outcomes at an affordable cost to the primary health-care system. Of equal importance for all stakeholders was the need to evaluate the impact of collaborative practice arrangements in primary health care on provider outcomes.

1. Introduction

A multiphase project was designed to investigate the implementation and integration of the nurse practitioner (NP) role in primary health care. The overall project was organized into five key areas – educational preparation; practice; government legislation and professional practice self regulation; change management, strategic communication, and social marketing; and health human resource planning in primary health care. The current report addresses the health human resource (HHR) planning component.

The following discussion summarizes the methodology and key findings obtained from a qualitative study of representatives from select stakeholder groups at the federal and provincial/territorial levels. Because of the limited experience with implementing and integrating the NP role into the new and evolving primary health care system, qualitative methods were identified as the best approach to increase our understanding of the issues. The purpose of this report is to describe how various stakeholders perceived select factors related to the integration of the NP role into primary health care and their importance for HHR planning.

2. Methodology

Data were collected as part of a longitudinal, multiphase study on the implications of the NP role in primary health care for helping to sustain the Canadian health-care system. This section presents a brief overview of the activities used to meet the initial consultation objectives of the health human resources (HHR) planning component.

2.1 Population and Study Sample

The population of interest was key stakeholders involved in HHR planning for NPs in primary health care settings. A non-probability, purposive sample was selected from stakeholders at the federal and provincial/territorial levels. The final sample consisted of representatives from the Department of National Defence and the First Nations and Inuit Health Branch (FNIHB) of Health Canada, and provincial/ territorial government health and education departments, nursing associations and colleges, nursing unions, university schools of nursing, regional health authorities, employers, nurse practitioner students, and nurse practitioners. Consultations were held with approximately 100 representatives from the various stakeholder groups from September 2004 to January 2005.

2.2 Data Collection

Interviews and teleconference sessions were conducted with different stakeholders. Consultations usually lasted from one to two hours. An interview schedule was developed to guide the discussions. Question content focused on several key factors identified as important for HHR planning (i.e., population health needs; supply of providers; production – education and training; financial resources; management, organization, and delivery of health services; resource deployment and utilization; population health outcomes; provider outcomes; contextual and geographic factors;

political and social factors; and general areas such as competency, scope, unionization, NP database, etc.). Examples of the open-ended questions used to explore consultants' perceptions of select factors are presented in Appendix A.

Although the interview schedule was helpful in facilitating discussion, it was evident early in the process that not all questions were pertinent to every stakeholder group. As well, other important issues, such as unionization, surfaced early during the consultations and additional questions were asked during subsequent interviews. Adjustments were made to the questions posed depending on stakeholder role, responsibility, and knowledge about the various issues.

2.3 Analysis

Qualitative analysis was completed on the interview notes written during discussions with federal and provincial stakeholders. All of the written notes were first read in their entirety by the province, territory, and federal government branch or department. The reviewer then became immersed in the data by reading and rereading the notes and assigning thematic meanings to the words and sentences according to the key content areas of the interview schedule. Subsequently, the interview notes for each stakeholder person or group were transcribed as close as possible to the original text and placed into relevant thematic categories.

The next phase of analysis proceeded in four steps. The first two steps were intended to refine and differentiate the original themes, and identify commonalities and differences within and between the various provincial/territorial and federal jurisdictions. The final steps were attempts to confirm the themes, as well as their relevance and importance for NPs working in primary health care. First, a cross-comparison was completed on all interview notes which was used to identify themes within each province, territory, or federal government branch or department. Second, interview notes and accompanying themes were compared and contrasted for individuals belonging to the same or similar stakeholder group regardless of provincial/territorial or federal jurisdiction. At the third step, the reviewer's interpretation of the notes on each interview was compared to those of another coder who had undertaken an independent review and developed a list of major themes. In keeping with the method selected for thematic analysis, at the final step, the reviewer re-read the preliminary relevant literature reports provided on health human resource planning and modeling activities with a special focus on NPs.

During the final phase of the analysis, an attempt was made to forge a meaning context for the identified themes by examining the interrelationships between and among them. As a result of this analysis, some themes were subsumed under others in order to maximize the differences between the final set of thematic categories.

3. Results

Several factors were identified as key components of successful HHR planning across the various provincial/territorial jurisdictions. What is apparent from the data analysis is the presence of significant disparities both within and across jurisdictions, especially

regarding the weight given to individual factors. Despite this observation there are sufficient commonalities to warrant a collapsing of the data into key themes. The following discussion presents a brief synopsis of the most important themes and how they combine to exert an important influence on HHR planning.

3.1 Production (Education and Training)

Stakeholder comments revealed that considerable controversy continues to exist over the educational requirements and acceptable professional standards for nurses working in extended/expanded roles within and across various provinces and territories. There is general agreement within the nursing profession that a key differentiating feature of the NP role is the advanced nursing practice component. The inference here is that advanced nursing practice requires additional education or training beyond the basic preparation as a registered nurse (RN) whether at the baccalaureate or diploma level.

Traditionally, preparation for the NP type of role varied from a few weeks to a few months with no standard content and/or clinical practice requirements before implementing the role. With NP certificates available to diploma-prepared nurses in many jurisdictions, the majority of nurses currently working in the extended/ expanded role are not prepared at the university level. This is especially true for nurses working in rural/remote regions. Significantly, only stakeholders from two provinces indicated that the majority of practising NPs had at least a baccalaureate degree.

It was apparent from stakeholder comments that there have been concerted efforts in recent years to standardize educational requirements for the NP role and establish some uniformity regarding expected competencies across Canada. Many stakeholder groups in different provinces and territories seemed to support the development of national standards to promote greater consistency in NP education, expected competencies, and scope of practice parameters. However, several groups also expressed concerns about the feasibility of implementing such national standards in the light of provincial/territorial needs, differences and realities. For example, while some supported setting master's education as the educational preparation standard for NPs, they also thought that economic realities would make that choice prohibitive, and could potentially limit the sustainability of the role in their jurisdictions. Others, already employing largely diploma-prepared nurses, felt that the nurses themselves may be unwilling (or financially unable) to return to school to obtain master's level education.

The current debate in the nursing profession is focused on whether the core curriculum for the education of NPs should be incorporated into a post-registered nurse (RN) baccalaureate program, a basic undergraduate nursing program, or a master's program in nursing. Most stakeholder groups across Canada supported the position that NP education should be university-based. An important qualifier was the need to recognize the experience that nurses already practising in extended/expanded roles have. Significantly, while several stakeholders from different provinces/territories echoed the importance of consistency in educational qualifications at the baccalaureate level, there were obvious disparities in the level of support for master's-prepared NPs. Some stakeholders were of the opinion that there should be equal transferability of credits for

both nursing practice experience base and NP certificate programs to baccalaureate and master's programs. The issues are the same but the stakes are now higher with the biggest concern being creeping credentials.

The confusion inherent in these debates has been attributed to the nursing profession's inability to achieve conceptual clarity on the various advanced practice roles. That is, there is no inter-subjective agreement as to what advanced nursing practice ought to be, especially when establishing the parameters for the clinical nurse specialist (CNS) versus acute care NP roles. It is understandable then that if members of the nursing profession are unable to agree on the parameters of various advanced nursing practice roles and appropriate education programs, there will also be disagreements concerning expected competencies and scope of practice. The fallout from all of this is the conspicuous absence of standard competencies for the NP role. For example, several stakeholders in Manitoba commented on the problems inherent in differentiating the NP role from other roles, especially the CNS role. In this province, an NP Implementation Team with representatives from different sectors was formed to clarify the NP role and provide input on the most appropriate legislation/regulation to guide its implementation.

Debates over appropriate education and core/standard competencies for NPs have extended into the legislative and regulatory spheres. While most provinces have legislation/regulations in place, a few do not, preferring to work under special arrangements rather than introducing legislation that may be too prescriptive and potentially jeopardize their ability to maintain an adequate supply of nurses in extended/expanded roles to meet demand. In essence, the inability to define clearly what is entailed in the NP role to the exclusion of other nursing roles creates havoc for policy makers and the various parties involved in HHR planning.

The problems created by variations in education requirements and expected competencies within and between provinces/territories were identified by several stakeholders who participated in the consultation process for the current study.

- Mobility problems surface due to the absence of equal standards for educating NPs in different provinces/territories. This situation not only places restrictions on NPs' ability to seek employment in other provinces/territories but also employers' ability to recruit qualified NPs to meet service needs. For example, the federal government finds the varying credential requirements in different provinces/territories to be quite problematic, especially HHR planning for the FNIHB and the Department of National Defence. In essence, it is difficult to engage in HHR planning when confronted with the challenges posed by debates focused on determining acceptable credentials for NPs.
- Educators are also confronted with a unique set of challenges. As in other sectors the education system has been subjected to fiscal constraints. Representatives from several stakeholder groups, especially education and professional associations/colleges, highlighted some of the key factors influencing NP education, many of which were common to all provinces/territories. One common theme identified was the pressures associated with decision-making

concerning the number of programs to offer, the costs to operate particular programs (i.e., human and physical resources), and the number of NP students to accept into various programs. Program choices are heavily influenced by provincial/ territorial legislation and regulatory mechanisms (i.e., expected competencies, scope of practice guidelines). Equally important is the availability of qualified faculty to teach in specific programs (i.e., preparing NPs for primary health care or acute care specialty areas) and conducive clinical placement sites for students. Several stakeholders in many provinces/territories noted that the task of finding sites for clinical placements, as well as willing physicians to serve as preceptors, was especially problematic at the community level. There were additional important factors identified from the data that were not consistently highlighted by all stakeholders as being integral to program planning. Some of these factors include the: 1) demand for different types of NPs across various health care sectors (i.e., employability); 2) number of seats funded by government and/or regional health authorities; and 3) availability of bursaries and/or scholarships to help defray educational costs.

- Although only briefly mentioned by a few individuals from several provinces, it was apparent that representatives of regional health authorities/employers felt that NP education should be primarily driven by population health needs, especially in the specialty areas. Significantly, the identification of need did not always translate into increased NP positions due, in part, to inadequate funding for the desired levels. Some employer and government representatives were also concerned about varying competency levels, especially in terms of what NPs with different educational bases could and could not do under different circumstances. Educators were concerned about the lack of sufficient funds to meet current and projected demands for NP seats. In addition, NPs and educators commented on the limited funding available to support students through NP programs.
- It is important that various stakeholders in different provinces/territories expressed concern over the limited consultations between representatives from education, professional associations/colleges, government, and employers/boards in the health-care sector. Restricted co-ordination of activities among key players can create an imbalance between the supply of NPs and available jobs.
- Besides the basic education of NPs, there is also the need to ensure support for continuing education. Restrictions have been imposed on the minimal number of clinical hours that NPs are required to work annually to maintain their licence. Variations in minimal requirements are evident across provincial/territorial jurisdictions. While there is consensus within the nursing profession on the importance of working a set number of hours to maintain clinical competency, a similar level of agreement has not been achieved regarding continuing education.
- All the NPs interviewed stressed the importance of having time off for continuing education and meaningful access to relevant content/clinical opportunities to update knowledge and skills. Similarly, many stakeholders from all provinces/territories believed that it was important to have a supportive

infrastructure to facilitate NPs' access to continuing education opportunities for maintaining required competency levels. For example, in Alberta, discussions are ongoing to establish Centres for Learning on Reserves to help facilitate not only clinical access for nurses from other work areas to meet clinical hour obligations for licence renewal but also educators' ability to secure suitable clinical placements for NP students. Such centres will also provide a means for the continuing education of NPs working in the field.

3.2 Resource Deployment and Utilization

The issues surrounding the deployment of NPs in the most efficient and effective manner are closely linked to production factors as well as core competencies and scope of practice issues. The major driving force behind the deployment and utilization of NPs or nurses working in extended/expanded roles is population health needs. Significantly, the comments made by many stakeholder groups from several provinces/territories indicate that the focus seems to be more on ensuring that the population has access to health services rather than the quality and comprehensiveness of that access.

An equally important factor is the legislative/regulatory requirement in many provinces/territories that NPs work collaboratively with physicians. While collaborative practice arrangements are built upon the team concept, there is still the idea of professional autonomy within the team. Conversely, when legislation requirements dictate that an NP is unable to work without identifying a willing physician collaborator, enormous restrictions are imposed not only on employment opportunities but also on the health-care system's ability to recruit NPs into under-serviced areas. The presence of Collaborative Practice Agreements (CPAs) in Nova Scotia is a case in point. As a result of CPAs, some NPs find it difficult to get suitable employment and, when unsuccessful, seek term placements in other provinces/territories to maintain licensure. Significantly, Yukon had a similar agreement in place but had to amend it because it was not practical. In Newfoundland and Labrador and New Brunswick, the medical profession is pressuring government to endorse CPAs similar to those in Nova Scotia.

While NPs are indeed valued for the services they are capable of providing, true acceptance of and support for what they are capable of doing seems related to the availability and degree of support from other health care providers. Employers may impose additional restrictions and/or extensions beyond the legislative and regulatory scope of practice, depending upon the availability of other health care providers, especially physicians. These conclusions are shaped by several important factors.

- There are a number of nurses working in extended/expanded roles who have similar and disparate qualifications but provide the same basic services, especially with respect to health care classified as medical functions. Given the absence of national and provincial standards for the education and training of nurses working in these roles, it is difficult to determine not only competency levels but also the nature and type of health care provided to clients. Ambiguity about what to expect from different levels of NPs (i.e., both primary health care and specialty based) was raised as an important issue by stakeholders in all provinces/

territories but especially by government and regional health authority/employer representatives. Lack of role clarity and varying competency levels were perceived as important factors influencing not only the demand for NPs but also the ability of the system to maintain an adequate supply. For example, legislation requiring that NPs be prepared at the master's level in Alberta has had significant repercussions for nurses working in the extended/expanded role, especially regarding their ability to obtain an NP licence. Besides the licensure issue in Alberta, other provinces/territories with a large proportion of diploma-prepared RNs with an NP certificate will have difficulty recruiting nurses into extended/expanded roles, especially into rural/remote areas, if graduate level education for NPs becomes the national norm.

- A second factor that is closely linked to the quality and comprehensiveness of services available to the population of various regions is the restrictive nature of scope of practice guidelines for nurses working in extended/expanded roles. For example, primary health care NPs have a broad knowledge base and repertoire of skills that could be applied in diverse clinical situations to treat chronic and acute disease and illness, promote health, and prevent illness, among others. Ideally, these NPs should be allowed to function autonomously according to their knowledge and skill sets within a collaborative practice arrangement. In actuality, NPs generally become fully autonomous in solo practice situations in rural/remote areas that experience physician shortages. Rather than being fully integrated members of a collaborative health care team, NPs become physician substitutes or replacements in such situations. Although some might argue that the full scope of practice is achieved in such situations, it might be more accurate to say that the NP exceeds her scope with respect to medical functions and fails to realize her full scope with respect to nursing care.
- Another important issue relates to the demand/supply variations in rural and remote versus urban areas. While a few provincial/territorial jurisdictions reported concerns about inadequate employment opportunities for NPs, this problem is due, in part, to the inadequate distribution of human resources across various health-care sectors and geographic regions. Employment opportunities are available for all health care providers in rural and remote regions. This is especially true for licensed NPs who have the specified educational requirements of provincial/territorial jurisdictions. Similar to other health-care professionals NPs with more extensive education prefer to obtain jobs in urban areas where a more extensive resource base exists. This aspect is reflected in part by the increasing trend for NPs to become specialized and move into acute care settings.

3.3 Management, Organization, and Delivery of Health Services

Wide variations were evident in the nature and type of practice models operating in health-care sectors within and across provincial/territorial jurisdictions. The models ranged from collaborative practice arrangements to solo practices. Any plan for health-care reform regardless of the area will fail to meet set objectives unless sufficient attention is given to the sociopolitical context. Significantly, representatives of

governments, employers, nursing associations and unions, nurse educators, and even NPs in all provinces/territories did not always agree on the best approach for implementing the NP role in different settings.

Although collaborative practice models were the norm for most primary health care settings, there were obvious disparities in the extent to which the NP role was integrated. In some regions, there was extensive planning for the development of a core team of health-care practitioners to deliver primary care services to meet population health needs in the most effective and efficient manner possible. In such instances, NPs work to their full potential, provide comprehensive care to all clients (e.g., diagnosing, ordering diagnostic tests, prescribing medications and treatment plans, making referrals, etc.), and work in a collaborative relationship with physicians (i.e., they carried their own client base, and referrals went back and forth between both providers). Although NPs also enjoy a broad scope of practice in more isolated regions, there are different levels of physician supervision and/or direction whether present or not on-site (e.g., level of consultation in diagnosing and prescribing, etc.). In other clinics/facilities, NPs are unable to work to their full scope and are actually being supervised by physicians; they have severe restrictions imposed on their ability to independently diagnose and order diagnostic tests, are limited in their prescriptive authority, and cannot make referrals to specialists and other providers.

It was apparent from the data that several factors were responsible for the disparate forms of practice described both within and across provinces/territories. A brief summary is presented of those factors consistently identified by various stakeholders as posing barriers to the most effective and efficient utilization of NPs in delivering health care services to various populations in different regions.

- One important contributing factor was the formulation of the NP role through provincial/territorial legislation and regulation. Opinion still differs on the usefulness of legislation that protects the title of NP. In fact, only a small number of provinces/territories have followed this route. On average, those provinces/territories that chose to account for the NP role and explicitly define the scope of practice parameters within the legislative and regulatory framework are operating with a higher level of certainty regarding NP education, expected competency levels, and potential role in various practice models. On the downside, potential problems may surface due to an inadequate supply of NPs with the necessary qualifications, especially in rural/remote regions. In contrast, the legislation in some provinces/territories is quite broad with the title or class of NPs remaining unprotected. Such an approach is perceived to have both positive and negative repercussions. On the positive side, the scope of practice for nurses working in extended/ expanded practice can potentially be quite extensive depending on the wishes of the team players, especially physicians and employers, in different practice contexts. On the negative side, the issue of varying competency levels surfaces, especially when there is no regulatory direction regarding expected competencies. Without a regulatory framework, competency levels are heavily dependent upon individual education preparation and experiential learning bases.

- A second contributing factor concerns system-level issues. In some instances, legislation/regulation permits NPs to make referrals to specialists and order diagnostic tests, such as X-rays and ultrasound. However, NPs may not be able to work to their full scope for several reasons: 1) physicians do not want to incur income loss from such referrals; or 2) changes have not been made to allow specialists to accept referrals from NPs and thus they also experience a loss of income. Additional issues also surface because NPs have not been given the necessary authority to complete and sign off workers' compensation forms or insurance claims, among others.
- Another important contributing factor is the presence or absence of a consultative framework for identifying priority need areas for all health care sectors (i.e., primary health care, acute care, and long term care) in both rural/remote and urban regions. There were obvious jurisdictional variations in the degree to which various stakeholders (e.g., provincial governments, regional health authorities, employers, relevant nursing bodies, general practitioners and specialists, etc.) were involved in the consultation process. It was also evident that not all jurisdictions viewed or incorporated population health needs as an integral component of HHR planning. In short, the type of practice model present was heavily influenced by the presence of a consultative framework and the importance given to population health needs.
- The degree of physician understanding of and support for the NP role was consistently identified by all stakeholders as an important factor influencing the full integration of NPs into different practice models. True collaborative relations are perceived to be possible only when physicians value NPs for their unique contributions to health care, and respect them as autonomous practitioners who do not require their supervision. It is important to note that physicians who have experience working with NPs are, in general, supportive of NPs. One important caveat is the perceived adequacy of the knowledge and skill levels of those NPs shaping physician opinions. Physicians who oppose the utilization of NPs as autonomous practitioners in primary health care settings on the other hand, usually have limited experience in working with them, question the adequacy of their education and competency levels, have liability concerns, and do not fully understand or accept the overlapping scopes of practice. Significantly, none of the representatives from the different stakeholder groups felt that it was a good practice for NPs to work as an employee of a physician or group of physicians and indeed, this was not a common occurrence in provincial/territorial jurisdictions.
- The system of physician remuneration was identified as another key influencing factor. The vast majority of stakeholders from all provinces/territories viewed fee-for-service as creating the greatest barrier to the full integration of NPs into different practice settings. For the most part, the most feasible arrangement described was to have physicians on full salary with benefits. Unfortunately, this practice is limited to certain settings, such as community health centres.

- Public understanding of and support for the role was another important factor identified by many stakeholders. The general consensus was that the public's understanding of the NP's role is quite limited in most provinces/territories. Limited exposure to NPs working in collaborative practice arrangements with physicians and other health care providers, especially in primary health care settings, seems to be a significant contributing factor. Concerns about receiving a lower quality of service when accessing NPs versus general practitioners (GPs) were raised as important issues by stakeholders from several provinces/territories. All stakeholders stressed the importance of educating the general public about the NP role in order to promote greater acceptance of NPs as complementing the care provided by other health care practitioners. A few suggested that meaningful public education would best be achieved by having a critical mass of NPs in diverse primary health care settings. Other stakeholders identified the presence of physician champions for NP integration into primary health care teams as essential for facilitating public acceptance.
- With an increasing trend to utilize a greater number of acute care NPs in different programs, similar and disparate issues surface with respect to practice models. Besides conflicts arising from role overlaps with other members of the nursing profession, especially CNSs and/or nurses with training in specialty areas, there are problems with scope of practice and delegated medical functions. For example, in specialty areas the NP may often be asked to perform the duties and responsibilities of medical residents, especially when there are shortages. In such instances, NPs have restricted autonomy and perform mostly medical functions, reducing or even excluding the nursing aspect of their role.

3.4 Financial Resources and Union Issues

Funding for the NP role was, in general, described as sporadic across the country with no defined budget from governments for this level of health care service. With regionalization dominating health care reform in most provinces/territories, regional health authorities (RHA) have been given the mandate to identify population health needs in their areas and determine the requisite number, mix, and distribution of health care providers for service delivery. Thus, the incentives for incorporating the NP role into health care teams must come from the regional level. What this means is that RHAs must first recognize the unique contribution of NPs in helping to meet population health needs, develop a realistic plan for their utilization and deployment throughout the region, and request health dollars from provincial/territorial governments to fund this venture.

The majority of stakeholders interviewed for the current study felt that the funding of NP positions was a big challenge for most provinces/territories. Part of the problem was attributed to the fact that most RHAs tended to focus on access to services in determining the number of NPs, especially in areas where there was an under-supply of physicians. It was generally agreed that a certain percentage of the monies allocated to RHAs should be used to hire NPs. It was also evident from the data that opposition from physicians can be a major impediment to such a policy change.

With no targeted monies for NPs, it is difficult to impress upon RHAs the importance of using scarce health care dollars to fund NP positions. It was undoubtedly easier to find funds for NPs working in acute care settings, especially specialty NPs (i.e., allocated nursing budget), than in primary health care settings. There seemed to be a general reluctance by governments and RHAs to access medical budgets even in areas that experience a physician shortage. Despite this reluctance some provinces/territories funded NP positions by accessing either medical budgets on a term basis or budgets allocated for primary health care initiatives. Several stakeholders also held the opinion that it will be extremely difficult to alter the skill mix in primary health care settings without a supportive funding mechanism.

With the trend toward establishing collaborative practice models as the dominant form of service delivery in primary health care settings, the onus rests with the nursing profession to clarify not only the parameters of the NP role but also other potential roles for RNs. The general consensus among most stakeholders interviewed was that without this level of clarity on nurse role differential, nurses of all types will not be allowed to practise to their full capacity and thus will not be meaningfully integrated into the evolving system of health care delivery. Successful marketing of the NP role to various stakeholders requires a consistent message regarding scope of practice and standard competencies. Significantly, successful integration of the NP role into collaborative practice arrangements is highly dependent upon the presence of strong nursing leadership, as well as primary health care champions in key positions, in all provinces/territories.

With no targeted monies for NP services and no clear formula for determining the required mix and distribution of health care providers based on population health needs, it was not unexpected that there was also no consensus on acceptable salary ranges for NPs. Several stakeholders commented on the wide disparities in pay scales across the provinces/territories (i.e., \$55,000 to \$130,000). NPs working in isolated areas were also being paid considerably more than their counterparts in both rural and urban regions.

The observed lack of consistency in salaries was due, in part, to role confusion especially within the nursing profession. For example, in some provinces/territories, NPs were being paid at the same level as managers with a master's degree. In other provinces/territories NP salaries were comparable to CNSs working in tertiary care settings. For the most part, it was apparent that many viewed the current salary range as substandard especially in situations where NPs were working to their full scope of practice in primary health care settings.

An important issue that surfaced in relation to pay scales for NPs was the question of whether they should be unionized. Significantly, most stakeholders were of the opinion that NPs should not be unionized. However, only one province, Alberta, has taken a strong position and actually passed legislation preventing the unionization of NPs. Several stakeholders from different provinces/territories noted that there were concerns that unions would be too prescriptive and could potentially place restrictions on role enactment, regardless of the setting. Another reason for non-unionization identified by a few stakeholders was the importance of investing time in developing the NP role and generating a positive work environment, especially with physicians. For those

individuals who supported unionization, however, the rationale was linked to the need for consistent pay for equal work as well as the importance of having an established bargaining group to represent NPs' interests.

3.5 Population Health and Provider Outcomes

The final theme to be considered relates to the presence of evaluation plans to assess the impact of the implementation of the NP role on both population health and provider outcomes. Certain provinces have allocated funds to support the evaluation of various health-care reform strategies, especially primary health care initiatives. While some attention has been directed toward provider and patient outcomes, the primary focus has been on cost-benefit analysis.

Only a few of the stakeholders interviewed commented on provider and population health outcomes. Quality of life issues dominated the discussions focused on provider outcomes. It was apparent that NPs were more content in practice settings where there was a fair degree of autonomy combined with positive collaborative relations with other providers. In addition, most stakeholders felt that NPs do better when there is a well-developed support system, especially when there are opportunities for networking with other NPs. All stakeholders stressed the importance of having the necessary support mechanisms in place for NPs working in isolated and remote areas. It was generally agreed that NPs do best when a back-up system is in place to ensure adequate time off during the work week, and having time allocated for vacations and continuing education. Without this type of system, burnout and continuing competency become major concerns, the stakeholders said.

Formal evaluations of primary health care models have generally received positive feedback from the more established multidisciplinary-based practices, especially regarding collaborative relations among all team members. The general consensus is that collaborative practice arrangements are the key to obtaining optimal success with the NP role. By working together with other providers in a positive environment, NPs are in the best position to market their role in different health-care settings. Local leaders also need to be recruited as strong advocates for the NP role, along with a strong presence from the nursing profession.

Several stakeholders from government and RHAs stressed that NPs need to focus more on facilitating positive patient outcomes and less on physician-nurse issues. Identifying suitable operational indicators to assess the impact of the role poses considerable difficulties, especially regarding productivity and cost-effectiveness. This situation is not good from the perspective of policy makers who are focused on evidence-based decision-making and who are looking for useful data that show positive outcomes (e.g., greater public access, higher detection rates, less system costs and greater benefits, etc.) from implementation of the NP service. What is needed in the redesigned work environment of today is suitable workload measurement systems to better match the supply of NPs with both population demands and identified health needs.

Clients who have had experience with NPs are generally positive about the quality of care received. The public wants access to high quality care. Although not formally documented with research data, some stakeholders believed that clients generally receive better continuity of care from NPs. There is also a developing perception that NPs can improve access to physicians through leveling and triaging of services.

4. Conclusion

Identifying appropriate models for HHR planning is a challenge for all decision-makers regardless of their location in the health care system. Although particular models may seem to be conducive for global planning, they lose credibility and usefulness when applied at the micro level, especially when focused on one group with such small numbers as NPs. To complicate matters further there is no definitive national database on the supply of NPs. How capable then is the system in determining the adequacy of the existing supply?

An additional barrier to HHR planning is the absence of inter-provincial/territorial agreement on NP education, standard competencies, and scopes of practice for both primary health care and acute care NPs. The underlying and general consensus is that there is insufficient clarity on the NP role as a generalist in primary health care or a specialist in both acute care and community settings to successfully counsel regional health authorities and other potential employers. If a leveling position is taken for both types of NPs, then there must be clear operational definitions for each level. That is, each level of NP must have a clearly delineated education requirement, expected competencies as a beginning and experienced practitioner, and scope of practice guidelines. By taking such an approach, policy makers will have access to clearly defined groups of practitioners that could be utilized under variant conditions based on population health needs.

Another significant barrier to HHR planning that emerged from the consultation process with key stakeholders was the limited attention given to the importance of engaging in ongoing assessment of population health needs. It is extremely difficult to plan for the deployment and utilization of NPs, or any other provider group for that matter, in the absence of meaningful data on the health needs of the population in a particular region. If access and costs are the major driving forces behind HHR planning, then it will never be possible to meet the primary health care mandate of providing holistic health care to all clients at affordable costs to the system.

More important, without adequate documentation of health needs in a specific region, it will be impossible to determine the impact of the health care provided on improving the general health of the population. Thus, it will be difficult not only to determine overall group impact but also the extent to which the introduction of a new provider group, like NPs, make a difference in the overall quality of care provided and population health outcomes. Maybe this is the prime reason for the absence of a comprehensive plan for evaluating the impact of system changes, especially at the community/regional level, beyond cost/benefit analysis in most provinces/territories.

Appendix A

CNPI HHR Initial Consultation Guide

General Questions:	<ol style="list-style-type: none">1. Are there NPs in practice in your jurisdiction?2. How are they currently employed? (e.g., single-handed independent practitioners, employees of health-care organizations, etc)3. What services/tasks do they currently provide (e.g., full range of primary care services to members of the public, specific services delivered to specific patient groups on referral from family physician, etc.)?4. How are they funded (e.g., entirely public through Ministry of Health, other public sources [e.g., workers compensation board], entirely private through out of pocket payments and/or private insurance, mixture of public and private) ?5. What is the form of remuneration for NPs (e.g., salary, capitation, fee for service, a mixture of these)?6. Is there a database on NPs?7. What are there recognized limitations/gaps in the database, if any?8. Are there any plans for further developments to the database?9. How is the number of NPs required to work in your jurisdiction determined?13 What stakeholder groups are consulted in determining the required number of NPs? Describe the role of each of the stakeholder groups.14. How is the required number of NPs to train in your jurisdiction determined? What stakeholder groups are consulted in determining the required number of NPs to train?
---------------------------	--

<p>Population Health needs</p> <p>Reflect the multiple characteristics of individuals in the population that create the demand for curative as well as preventive health services</p>	<ol style="list-style-type: none"> 1. Do you consider population health in your health planning? In planning for NPs? 2. What role does population health play in your planning for NPs?
<p>Supply of Providers</p> <p>Reflects the actual number, type and geographic distribution of regulated and unregulated providers delivering health services at a given point in time</p>	<ol style="list-style-type: none"> 1. How do you determine the number of NPs you need? 2. Do you know the distribution of the NPs by rural vs. urban? 3. Do you know how many NPs are working on reserve?
<p>Production (education and training)</p> <p>Involves the education and training of future health providers</p>	<ol style="list-style-type: none"> 1. How many NP seats are you currently funding? 2. How many do you plan to fund over the next five years? 3. Do you see any challenges with the numbers of prepared faculty to teach these courses (i.e., numbers of qualified faculty, aging teachers, etc.)? 4. What is the process for co-ordinating HHR planning between the Ministry of Health and education? 5. Where do the NPs go to work? Do they stay in the jurisdiction? Do they move to other jurisdictions? Do they go outside of Canada? 6. Are there incentives for NPs to study in your jurisdiction? If so, what are they? Do these incentives work?

<p>Financial Resources</p> <p>Provides an ‘economic context’ for HHR decisions and involves the estimation of the future size of the economy from which the particular health human resource and competing services will be funded</p>	<ol style="list-style-type: none"> 1. How do you determine the number of NPs you will fund? 2. What is the salary offered to NPs? Is it different from salaries for nurses in other roles? Who determines the salary? 3. Does the salary of NPs depend on their collaboration with a physician? Or can they work independently?
<p>Management, Organization, and Delivery of Health Services</p> <p>Influences how care is delivered across the continuum</p>	<ol style="list-style-type: none"> 1. What are the models presently used? Collaborative practice or independent practice, or both?
<p>Resource Deployment and Utilization</p> <p>Reflects the amount and nature of the resources deployed to provide health services to the population at large. Utilization reflects the nature and type of resources utilized by the population to meet health needs. The efficiency and effectiveness of service delivery depends to a great extent on the efficient and effective deployment and use of personnel.</p>	<ol style="list-style-type: none"> 1. How do you see using NPs? (i.e., are they a substitute for the generalist physicians, pharmacist, and other formal or informal health care providers?) 2. Are they valued in their own right or are they viewed as a substitute?

<p>Population Health Outcomes</p> <p>Are classified into those focusing on individual health and the health of populations or communities</p>	<ol style="list-style-type: none"> 1. Do you plan on evaluating the impact of the role on health outcomes of the populations, i.e., reduced morbidity? Increased consumer satisfaction? 2. How will you measure/determine the impact of the NP role on population health outcomes?
<p>Provider Outcomes</p> <p>Includes the health status of providers, retention rates, turnover rates, sick time, work satisfaction, levels of burnout and other effective responses to the work and work environment</p>	<ol style="list-style-type: none"> 1. Do you plan on evaluating the impact of the role on provider outcomes i.e., job satisfaction, reduced burnout and turnover, level of autonomy? 2. How will you measure/determine the impact of the NP role on provider outcomes? 3. Do you have knowledge of job satisfaction, levels of stress and burnout? If so, how do you assess these factors? What makes the assessment?
<p>Contextual Factors</p>	<ol style="list-style-type: none"> 1. What factors influence the planning for and decisions made about the NP role? HHR indicators (changing health status of population, e.g., increasing cancer rates, increased depression amongst youth), community pressures, shortages of generalist physicians, changing population health needs in rural and remote areas? 2. Who is involved in the decisions? 3. Can you describe this process?
<p>Geographical Factors</p>	<ol style="list-style-type: none"> 1. Do you use or plan to use a simulation model to do your HHR planning? 2. Do you plan differently for human resources for rural and remote areas vs. urban areas?

<p>Political Factors</p>	<ol style="list-style-type: none"> 1. What political factors are involved in the decision-making regarding NPs? 2. Do physician groups influence the decision regarding the supply, the scope of practice? If so, how? 3. Do other health care providers (e.g., pharmacists) influence the planning for the NPs? If so, how?
<p>Social Factors</p>	<ol style="list-style-type: none"> 2. Do the socioeconomic factors of the population in your region play a role in the planning for and implementation of NPs?