

A CASE STUDY OF THE PROCESS OF NURSE PRACTITIONER ROLE
IMPLEMENTATION
WITHIN A HEALTH AUTHORITY IN BRITISH COLUMBIA

By

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Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

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DALHOUSIE UNIVERSITY

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DEDICATION PAGE

To my sister, Shirley Coleman, who encouraged me to pursue this dream but left this world before she could see me realize it.

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ABSTRACT

At the time of this study (2009) the role of the nurse practitioner (NP) was new to the province of British Columbia (BC). The provincial government gave the responsibility for implementing the role to health authorities. Managers of health authorities, many of whom were unfamiliar with the role, were responsible for identifying the need for the NP role, determining how the NP would function, and gaining team members' acceptance for the new role.

The purpose of the study was to explain the process of NP role implementation as it was occurring and to identify factors that could enhance the implementation process. An explanatory, single case study with embedded units of analysis was used. Three primary health care (PHC) settings in one health authority in BC were purposively selected. Data sources included semi-structured interviews with participants (n=16) and key documents. Propositions and a conceptual framework developed from the review of the literature guided the study. Key components of the framework were the concepts of intention, involvement and acceptance.

The results demonstrate the complexity of implementing the NP role in settings unfamiliar with it. The findings suggest that early in the implementation process and after the NP was hired, team members needed to clarify intentions for the role and they looked to senior health authority managers for assistance. Acceptance of the NP was facilitated by team members' prior knowledge of either the role or the individual NP. Community health care providers needed to be involved in the implementation process and their acceptance developed as they gained knowledge and understanding of the role. Although relatively new in their roles, NPs were enacting, to some degree, all competencies of the role, as defined by College of Registered Nurses of BC.

The findings suggest that the interconnectedness of the concepts of intention, involvement and acceptance influences the implementation process and how the NP is able to function in the setting. Without any one of the three concepts not only is implementation difficult, but it is also challenging for the NP to fulfill role expectations. Implications for research, policy, practice and education are discussed.

LIST OF ABBREVIATIONS USED

BC	British Columbia
CHSRF	Canadian Health Services Research Foundation
CIHI	Canadian Institute for Health Information
CNA	Canadian Nurses Association
CNPI	Canadian Nurse Practitioner Initiative
CNS	Clinical Nurse Specialist
COPD	Chronic Obstructive Pulmonary Disease
CRNBC	College of Registered Nurses of British Columbia
FP	Family Physician
HPA	Health Professions Act
HSS	Harriett Street Settlement
MOH	Ministry of Health
MOHP	Ministry of Health Planning
MOHS	Ministry of Health Services
NB	New Brunswick
NGO	Nongovernmental Organization
NP	Nurse Practitioner
OSCE	Objective Structured Clinical Examination
PEPPA	P articipatory, E vidence-Based, P atient-Focused P rocess for A dvanced Practice Nursing Role Development, Implementation, and Evaluation Framework
PHC	Primary Health Care
PHCTF	Primary Health Care Transition Fund
RCT	Randomized Controlled Trial
RN	Registered Nurse
RNABC	Registered Nurses Association of British Columbia
UBC	University of British Columbia
UNBC	University of Northern British Columbia
US	United States
UVIC	University of Victoria

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CHAPTER 1 INTRODUCTION

Advanced practice nursing is an umbrella term used to designate nursing practice that demonstrates competencies beyond the traditional scope of nursing practice. The Canadian Nurses Association (CNA) recognizes two advanced nursing roles, that of the clinical nurse specialist (CNS) and the nurse practitioner (NP) (CNA, 2008a). Although the NP role has been an established nursing role for over 40 years, its implementation into the Canadian health care systems has been challenging.

In Canada, the NP role was introduced in the late 1960s with the first NP educational program established at Dalhousie University in Nova Scotia in 1967. Other Canadian universities established NP programs in the 1970s (Haines, 1993). Early studies indicated that NPs provided effective primary care (Spitzer et al., 1974); however, by the mid-1980s what seemed to be a promising new nursing role had failed to become firmly established and accepted in the Canadian health care system (Spitzer, 1984). Instead of continued evolution and maturation, the NP role became dormant and NP educational programs closed across the country (DiCenso, Paech, & IBM Corporation, 2003; Worster, Sarco, Thrasher, Fernandes, & Chemeris, 2005).

For over a decade there has been renewed interest in the NP role by federal and provincial governments. This is consistent with the emphasis on primary health care (PHC) reform (Romanow, 2002; Hutchison, Abelson, & Lavis, 2001; Lewis, 2004; Rachlis, 2003). Between 1996 (Alberta) and 2009 (Yukon), all provinces and territories in Canada enacted legislation enabling the NP role (Kaasalainen et al., 2010). The province of British Columbia (BC), where the research for this thesis was conducted, was

one of the last provinces to implement legislation for regulation of the role (2005) (Canadian Institute for Health Information, 2010).

Governments, regulators, educators, employers, and prospective NPs across Canada have expended substantial resources to implement or expand the NP role in PHC settings. In spite of these investments in the role, it remains unknown if the role will take hold in the Canadian health care system this time or if once again it will disappear (deWitt & Ploeg, 2005).

Purpose of the Study

The purpose of this study was to understand and explain the process of NP role implementation in PHC settings in one health authority in BC. Though the process of NP role implementation has been examined in other provinces, there were no studies in the BC context. This study provided an opportunity to analyze the intended and actual consequences of implementing the role.

Significance of the Study

Factors such as context, environmental issues, and the characteristics of individuals involved influence the process of implementing any new initiative (Cummings, Frasier, & Tarlier, 2003; King, Morris, & Fitz-Gibbon, 1987). Other factors such as the degree of commitment to the role by those implementing it, the presence or absence of change agents, the political environment, governmental structures, cultural traditions, and the organizational arrangement in a setting contribute to the complexity of implementation processes (King et al. 1987; MacDonald, 1998; Reay, Golden-Biddle, & Germann, 2003). Implementation of the NP role is a complex process that evolves over time without a clearly demarcated sequence. The complexity of NP role implementation

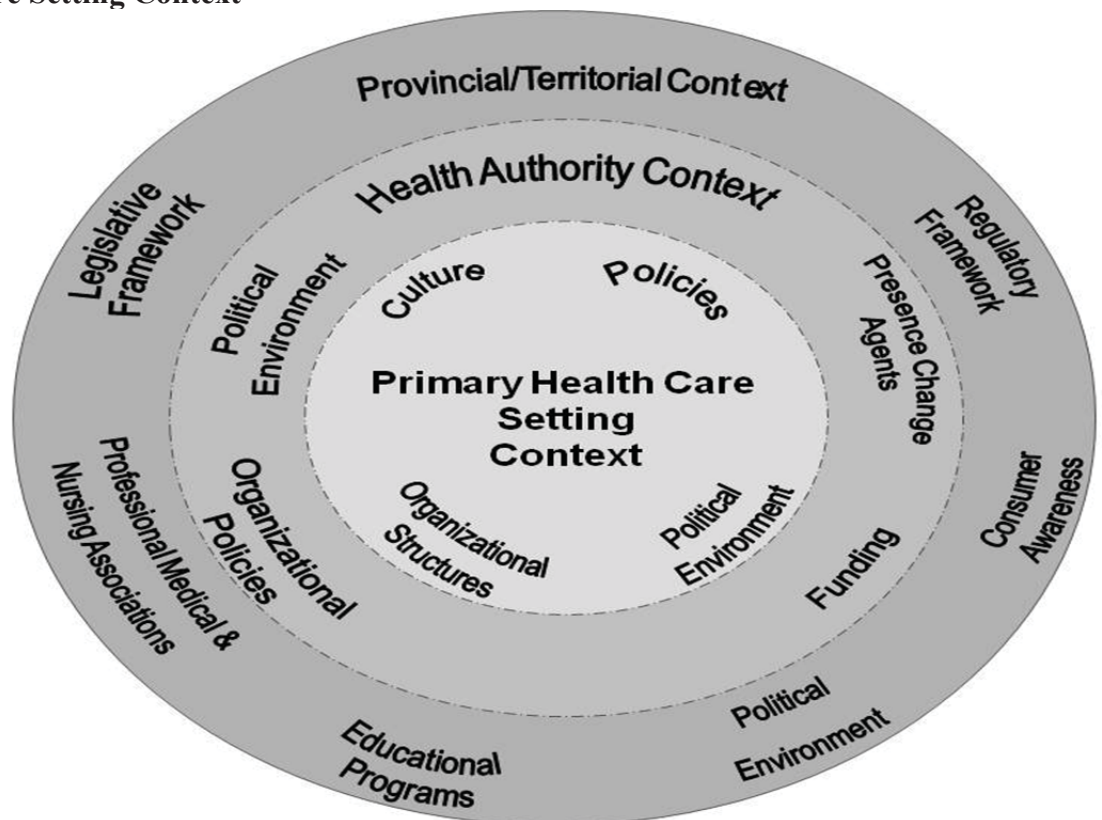
has been examined in studies in acute and long-term care and PHC settings in the Canadian provinces of Newfoundland and Labrador (Goss Gilroy, 2001), Ontario (DiCenso et al., 2003; Stolee, Hillier, Esbaugh, Griffiths, & Borrie, 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001), New Brunswick (Gould, Johnstone, & Wasylkiw, 2007) and Alberta (Cummings, Fraser, & Taber, 2003; Jensen & Scherr, 2004; Reay et al., 2003; Reay, Patterson, Halma, & Steed, 2006). These studies demonstrated the need to consider the multiple factors that influence the process of role implementation (Bryant-Lukosius, DiCenso, Browne, & Pinelli, 2004).

In their comprehensive evaluation of the PHC NP role in Newfoundland and Labrador, Goss Gilroy (2001) identified the need for managers' involvement in and support of the process, physician support for the role, and NPs' ability to articulate the role to others as factors affecting role implementation. Similarly the DiCenso et al. (2003) study of PHC NP role integration identified physician understanding of the role and the ability of NPs to enact their role as factors influencing integration. While the four Alberta studies (Cummings et al., 2003; Jensen & Scherr, 2004; Reay et al., 2003; Reay et al., 2006) are not provincial-level studies, they provide evidence that acceptance of the role by managers, other professional staff, and physicians influences the process of NP role implementation.

In BC, NP role implementation processes occurred at the systems (provincial) level, organizational (health authority) and PHC setting levels. At the systems level, NP legislative and regulatory frameworks and NP educational programs were developed. In addition, changes were made to legislation governing other professional groups, such as pharmacists (College of Registered Nurses of British Columbia [CRNBC], 2006a). The

Ministry of Health (MOH)¹ gave responsibility for where and how to implement the NP role to health authorities (BC MOH, 2006). At the health authority level, multiple decisions, activities, and processes had to be finalized prior to the first NP being hired. Once an organizational strategy for the role was developed and NPs were hired, PHC settings began translating organizational strategies for the role and implementing and assimilating the new NP into the setting. In Figure 1, I illustrate the multiplicity of factors at the provincial/territorial, organizational, and PHC setting levels that influence the process of NP role implementation.

Figure 1. Complexity of Provincial/Territorial, Health Authority, and Primary Health Care Setting Context



Although the health authority's PHC settings were able to consider evidence from previous studies (DiCenso et al., 2003; Goss Gilroy, 2001) that could have influenced

¹ In BC the name of the Ministry of Health has changed periodically from Ministry of Health Planning, Ministry of Health and Ministry of Health Services.

their process of NP role implementation, there were differences in the context of NP role implementation in BC that made it difficult to generalize from these earlier studies. Previous studies identified restrictive use of drug lists that NPs were able to prescribe, diagnostic tests they were able to order, and variability in educational requirements as factors influencing the implementation process (DiCenso et al., 2003; Goss Gilroy, 2001). BC took into consideration the limitations imposed on the NP role in other provinces when creating their legislative and regulatory frameworks and attempted to eliminate those factors (CRNBC, 2006a). The regulatory and legislative frameworks in BC require Master's education for registration, and the prescriptive and diagnostic authority is intentionally broad (CRNBC, 2006a). The impact of these approaches on the implementation of NP roles has not been evaluated. This study of the implementation process used in BC is important so that intentions for the role are realized and factors that influence its success are identified (Bryant-Lukosius & DiCenso, 2004; Bryant-Lukosius et al., 2007; Cronbach, 1982; Mitchell-DiCenso, Pinelli, & Southwell, 1996; Shadish, Cook, & Leviton, 1991; Spitzer, 1978).

Demographics and Morbidity in British Columbia

BC is one of Canada's most populated provinces with more than four million people residing in the province. Fourteen percent of the population is 65 years of age or older. The life expectancy of adults in BC is 80.4 years (Statistics Canada, 2010); however, this number is significantly lower for First Nations people, whose life expectancy is 73.9 years (Vital Statistics, 2004). Individuals representing First Nations comprise 4.8% of the total population of BC (BC Stats, 2006) and visible minorities, most notably Chinese and South Asians make up 24.8% (Statistics Canada, 2010).

In 2001/2002 more than 130,000 randomly selected respondents from across Canada completed the mailed Canadian Community Health Survey. Respondents were asked to self-rate their health. Approximately one quarter (24%) of British Columbians responding to the survey rated their health as excellent, while 12.4% rated their health as fair or poor. Fifty three percent (53%) of individuals in higher income brackets indicated their health was excellent compared to 38.5% of those with lower income (Ministry of Health Planning [MOHP], 2002).

As in other provinces, many British Columbians suffer from chronic diseases. Using data from the Canadian Community Health Survey and the National Population Health Survey, the MOHP tracks 91 health indicators of British Columbians. The MOHP's 2002 annual report indicated that since 1995 the prevalence of chronic diseases such as arthritis, hypertension, diabetes, and asthma has been increasing. The 2002 annual report also indicated that one in four individuals in BC have activity limitations; over 25% of seniors have chronic pain, the majority of whom are women; and depression affects 11.6% of the population (MOHP, 2002). The leading causes of death are cancer, and diseases affecting cardiovascular, cerebrovascular, and pulmonary systems (MOHP, 2002).

Primary Health Care in British Columbia

PHC is the first place people go when they need care for acute short term problems, advice on health promotion or illness prevention, management of chronic diseases, and/or referral to other parts of the health care system (BC Ministry of Health [MOH], 2007; MOH, 2008; Health Canada, 2006; Wong, Watson, Young, & Regan, 2008). In the last 20 years numerous Canadian provincial and national reports have

highlighted the need for changes to the way PHC is delivered (Collins & Hayes, 2007; Health Council of Canada, 2005; Hutchison et al., 2001; Lewis, 2004; Romanow, 2002). Nationally identified concerns include inadequate attention to health promotion and disease prevention, lack of continuity of care among providers and institutions, difficulty obtaining access to care, barriers to integrating primary care providers such as NPs into the system, and the need for intersectoral action and collaboration, which includes community involvement (Health Canada 1999; Health Canada, 2006; Health Council of Canada, 2005).

BC, like other provinces across Canada, has implemented a variety of policy initiatives to meet the PHC needs of British Columbians (Health Council of Canada, 2005). In the 2007 *Primary Health Care Charter* (BC MOH), the BC government prioritized efforts to improve access to care, improve patient outcomes, and create a strong, sustainable, effective PHC system (BC MOH, 2007).

In BC, the Ministry of Health Services (MOHS), also referred to as the MOH and the MOHP, has overall responsibility for ensuring that high quality, appropriate, cost effective and timely health services are available to all British Columbians. The MOHS provides leadership, direction and support to health authorities and sets province-wide goals, standards and expectations for health service delivery. The MOHS develops social policies, legislation and professional regulation (MOHS, 2010). Health care is delivered by one provincial and five regional health authorities who are responsible to the MOHS. Regional health authorities provide a full range of health services including acute care and PHC, public health, and long-term care (MOHS, 2010). The majority of PHC is provided by fee-for-service family physicians (FPs). Currently, 73% (n=1408) of FPs in

BC are in solo practices or group practices with other physicians. It is in these PHC settings that 67% of patient care is provided (National Physician Survey, 2007).

Integrating NPs into BC's health care system is one strategy the MOHS has identified to expand PHC capacity and services (MOH, 2008; MOH, 2009). This integration is in its early stages as reflected in the results of the 2007 National Physician Survey, which found that 14% (n=470) of FPs in BC regularly collaborate with NPs.

BC's Goal for NP Role Implementation

NP role implementation occurs in complex social environments. Numerous stakeholders and decision makers were involved in developing public policies to facilitate NP role implementation. At the systems level, early intentions for implementing the role were to complement existing services, expand the range of services, and increase access to primary care (MOHS, 2003). It was envisioned that these expectations would be accomplished by NPs collaborating and partnering with physicians and other health care providers to manage common acute and chronic illness (MOH, 2005).

In order to enact this systems level policy initiative (NP role implementation), significant changes to existing provincial legislation were made and implemented prior to hiring the first NP. Legislative and regulatory frameworks were developed; educational programs were funded, established, and approved (British Columbia Health Professions Act, 2010; CRNBC, 2006a). I describe the legislative and regulatory changes in Chapter 2. Health authorities implemented policy changes allowing NPs to practice in various primary and acute care settings. Finally, nurses enrolled in and graduated from NP programs and successfully completed registration examinations. Thus, when an NP

actually assumed a position in a health authority, it was the culmination of multiple policy changes that occurred at the systems, organizational, and practice setting levels.

Context of NP Role Development in British Columbia. NPs in BC are registered as either a family, adult, or pediatric NP. As in other provinces family, adult, and pediatric NPs practice in and PHC settings. A pediatric NP only practices with pediatric populations and the adult NP's practice is targeted to adults. The scope of the family NP's practice is across the lifespan and is similar to PHC NPs in other provinces (RNABC, 2003; CRNBC 2010a). Graduates of NP programs or NPs relocating to BC must successfully complete two registration examinations. BC opted to develop BC specific registration examinations, one of which is an objective structured clinical examination (OSCE), instead of using the national NP registration examination developed through the Canadian Nurse Practitioner Initiative (CNA, 2008b). Registered NPs in BC practice independently; there is no requirement for a formal consultation or collaboration agreement between the NP and employer or physician as there is in some other Canadian provinces. However, NPs are expected to appropriately collaborate and refer to family practice physicians and medical specialists and a formal process is outlined in CRNBC's scope of practice document (CRNBC, 2010b). The focus of this research study is the family NP working in PHC settings.

Definition of Terms

The terms used in this study may have different meaning for various stakeholders, decision-makers, and health care providers. Indeed, terms such as advanced practice nursing and NP have been defined differently across Canada (Doucette & Sangster-Gormley, 2004), creating role confusion and ambiguity (Bryant-Lukosius et al., 2004).

Implementation is another term whose definition may be nebulous (MacDonald, 1998). Therefore, to clarify meaning and context for this thesis, the following terms are defined.

Advanced Nursing Practice. The lack of a clear definition for advanced nursing practice has contributed to the diverse understanding of advanced practice held by nurses and other stakeholders (Bryant-Lukosius, 2003; Schober & Affara, 2006). Early attempts to define roles within nursing such as the CNS or the NP failed to provide clarity to the concept of advanced nursing practice. Initially many nursing leaders resisted the term advanced nursing practice arguing that nurses claiming advanced practice, especially NPs, were simulating medical practice (Huch, 1995). Calkin (1984), a Canadian, provided an early definition of advanced nursing practice that differentiated basic and advanced nursing. According to Calkin (1984), advanced nursing practice is the deliberative diagnosis and treatment of the full range of responses to real or potential health problems experienced by patients. Other perspectives include that of British scholars McGee and Castledine (2003), who viewed advanced nursing practice as professional maturity demonstrated by integrated knowledge, competence, and skill “that challenges accepted boundaries of practice and pioneers new development in healthcare” (pg. 24), and Hamric (2005), an American, defined advanced nursing practice as the application of an expanded range of practical, theoretical, and research based competencies to phenomena experienced by patients. The CNA (2008a) framework for advanced nursing practice identified multiple competencies that are enacted by those in advanced practice nursing roles situated within the domains of clinical practice, research, leadership, and consultation and collaboration. CNA defines advanced nursing practice, which includes NP practice, as an advanced level of nursing practice that maximizes

nursing knowledge and skills to enact synergistically all advanced nursing practice competencies to meet the needs of clients and in doing so extends the boundaries of nursing practice (CNA, 2008a). I employed CNA's definition of advanced nursing practice in this study.

Role. Roles are organized behaviour patterns and expectations for positions in social systems (Biddle, 1986; King, 1981). Roles have multiple dimensions and are more than the work, or set of skills, that are enacted by those occupying the role (Squires, 2004). At the individual level, roles are learned through socialization, education, and interactions with others (Sangster, 1987; Stark, 2006).

Nurse Practitioner. The International Nurse Practitioner/Advanced Practice Nursing Network (INP/APNN) defines NP as a registered nurse (RN) with expert knowledge, complex decision-making skills, and clinical competencies for expanded practice (2007). In Canada, the education, titling, and scope of practice for NPs have varied somewhat by province and territory (Doucette & Sangster-Gormley, 2004; Fahey-Walsh, 2004; Tarrant & Associates, 2005; Worster et al., 2005). A national Canadian definition is that NPs are RNs with additional education and experience "who possess and demonstrate the competencies to autonomously diagnose, order, and interpret diagnostic tests, prescribe pharmaceuticals, and perform specific procedures within their legislated scope of practice" (Canadian Nurse Practitioner Initiative, 2006, p. 26). The CRNBC defines NP as an RN with additional competencies and whose scope of practice "includes providing health care services from a holistic nursing perspective combined with a focus on diagnosing and treating acute and chronic illnesses, including prescribing medications" (RNABC, 2003, p. 4). I applied CRNBC's definition of NP to this study.

Implementation. The term implementation may mean different things to different people and a clear and concise definition is difficult to obtain (MacDonald, 1998). Implementation may be characterized as interventions (MacDonald), interactions, strategies (Jackson, 2001), processes, or operational practices used by an organization to carry out a policy or program. While multiple terms are used to describe implementation, all refer to the many steps in the process and execution of organizational policies or programs or in this case, the actions the health authority undertook to implement the NP role (deLeon & deLeon, 2002; Palumbo & Oliverio, 1989). Two important aspects of implementation are the extent or degree to which implementation occurs as planned and the process of implementation, including the application of organizational and administrative decisions, policies, and directives (Palumbo & Oliverio, 1989). The extent that original intentions for policy implementation occur in local environments is influenced by the problem solving abilities of complex social systems (individuals) as they interpret and adapt to changes brought about by the new policy or program (Helfrich, Weiner, McKinney, & Minasian, 2007; Pressman & Wildavsky, 1984).

It is not uncommon for individuals and health teams who have the responsibility of translating an organization's intentions into local environments, such as PHC settings, to encounter difficulties that result in changes to the original intent of the policy. Those involved with implementation need to expect some degree of difficulty and not be surprised when difficulties or complexity influence the process. Difficulties related to implementation do not constitute failure of the implementation process (Pressman & Wildavsky, 1984).

Four models are used to describe the process of implementation. These models are described as top down, bottom up, adaptive, and evolutionary (MacDonald, 1998). Top down implementation refers to implementation that takes place in organizations with control of the process by senior administrators and managers and implementation occurs as policies are enacted (MacDonald, 1998). This method may be of benefit in situations where there is little room for input from others. In the bottom up approach, the implementation process involves and is directed by the people who work directly with clients, or who will be responsible for putting the new policy or program into action (deLeon & deLeon, 2002). This approach recognizes communal interests and is more participatory and democratic than the top down approach (Palumbo & Oliverio, 1989). Adaptive and evolutionary implementation strategies are similar; the former refers to the ability of the implementation process to adapt to fit local conditions whereas the latter refers to processes that are improved upon during implementation. In both models, adjustments to program implementation are made based on the context at the local level of implementation (Palumbo & Oliverio, 1989). No one model of implementation is better or more efficient than another; what works in one situation may not work as well in another. Context, environmental issues, and the characteristics of the individuals involved influence implementation. Factors such as the degree of commitment to the program by those implementing it, the presence of change agents, the political environment, governmental structures, cultural traditions, and the organizational arrangement in each location all influence implementation (King, Morris, & Fitz-Gibbon, 1987; MacDonald, 1998; Palumbo & Oliverio, 1989). Implementation can be described as the transition period following a decision to adopt an innovation (Helfrich et al, 2007).

For the purpose of this study, I defined implementation as the process used by the health authority to add an NP to the health care team in PHC settings. Components of the process included identifying the need for the NP role, determining how the role functioned, and accepting the new role into the team. Inherent in the process was the need to interpret and link the local process with the health authority's implementation policy. This definition is closely aligned with the evolutionary model of implementation (Palumbo & Oliverio, 1989).

Primary Health Care Setting. Health Canada (2006) defines PHC settings as the first place people go when they need care, advice on health promotion or illness prevention, and/or referral to other parts of the health care system, and where care is delivered to individuals, families, communities, and populations of patients. PHC settings are one sector of the overall health care system where NPs are expected to enact their role functions and competencies. NPs in BC may practice in acute, long-term, and PHC settings. In this study the PHC setting was defined as the location of NP practice. All locations were community-based and included a fee-for-service physician office, a seniors PHC centre, and a setting providing mental health care.

Practice Setting. In this study, NPs' practice occurred in PHC settings. The term practice setting is used to represent the location of NP practice.

Summary

At the time of this study (2009) the NP role was relatively new to the BC health care system. The complex process of NP role implementation was in its early stages of evolution. The purpose of this study was to understand and explain the process of NP role implementation as it was occurring in PHC settings and to identify factors that could

enhance the overall implementation process. The health authority in which this study took place designated implementation of the NP role as one PHC strategy to improve access to care, patient outcomes, and functioning of multidisciplinary teams.

I defined the terms advanced nursing practice, role, NP, implementation, PHC setting, and practice setting in an effort to clarify how I used them in the context of this study. I also acknowledge that other definitions of these terms may exist. In the next chapter I discuss the literature related to NP role development, outcomes of care provided by NPs, and factors influencing implementation.

CHAPTER 2 LITERATURE REVIEW

In this chapter the review of the literature is presented in three parts: the history of the NP role, outcomes of NP practice, and studies of NP role implementation. I explore the historical evolution of the NP role in the United States (U.S.), Canada, and BC. The history of the NP role in Canada is well documented (Kaasalainen et al., 2010).

Therefore, in this review I did not attempt to restate the complete history of the role, but instead used historical events as a backdrop to explain how the role unfolded in BC. I elaborate more extensively on the evolution of the NP role in BC, and the legislative and regulatory frameworks that support the role.

The review summarizes current knowledge about NP outcomes of care; this was important to include since implementation of NPs into health authorities was based on research evidence that demonstrated their safety and effectiveness. Following this discussion, I identify barriers and facilitators to NP role implementation, and finally, examine models used to implement NP roles. My intent was to reflect critically on what is known about NP role implementation and to identify gaps in knowledge that informed and prompted this study.

Search Strategy

The purpose of the literature review was to develop an understanding of NP role implementation with specific attention to the facilitators and barriers that impact this process. I searched the databases CINAHL, Cochrane Database of Systematic Reviews, Health Source: Nursing Academic Edition, Medline, and PsychINFO using the keywords “nurse practitioner”, “role”, “outcomes”, “outcomes of practice” “evaluation”, and “implementation” in combination with the phrases (a) NPs and role, (b) NPs and

evaluation studies, (c) NPs and implementation studies, (d) NPs and integration, (e) NPs and organizational change, and (f) NPs and outcomes. I also reviewed documents, including grey literature obtained through digital dissertations and documents on governmental and nursing organization websites.

In an effort to enhance the usefulness of information, I limited the review to implementation studies in English and published in the last eleven years (1999-2010). Internationally, there is no consensus on how best to define, introduce, or implement advanced nursing roles (Schober & Affara, 2006; Sheer & Wong, 2008). The lack of a consistent international approach to defining and implementing advanced nursing practice roles has contributed to the diverse understanding of what constitutes advanced practice nursing and the complexity of establishing best practices for implementing new roles (Bryant-Lukosius et al., 2004; Delamaire & Lafortune, 2010). Therefore, I included predominately Canadian studies of NP implementation because the term NP has different meanings in different countries (Allen & Fabri, 2005; Gardner & Gardner, 2005; van Offenbeek & Knip, 2004; Woods, 1997). I elected to exclude international studies so as not to confuse my working definitions with roles that were not the same as NPs in Canada. Although I located studies of implementation in Australia, these were not included as it was difficult to discern how the NP role was defined (Donato, 2009; Driscoll, Worrall-Carter, O'Reilly, & Stewart, 2005).

Historical Evolution of the NP Role in the United States and Canada

The term “nurse practitioner” has been used to describe a specific nursing role in North America for more than 40 years (DeLeon-Demare, Chalmers, & Askin, 1999; Dontje, Corser, Kreulin, & Teitelman, 2004; Mason, Vaccaro, & Fessler, 2000; Patterson,

2000, Spitzer, 1978). The evolution of the role in Canada has been slow (Haines, 1993; Kinner, Cohen, & Henderson, 2001; Kommenich, 1998; Patterson, 1999; Sidani, Irvine, & DiCenso, 2000; Spitzer, 1984). The historical trajectory of the NP role in Canada differs from that of the U.S.; whereas in the U.S. the NP role has evolved continuously since its inception, in Canada its evolution seems to have experienced starts and stops (de Witt & Ploeg, 2005).

The NP Role in the United States. The origins of registered nurses (RNs) practicing autonomously and independently with populations and communities outside of hospitals can be traced back to 1893 and Lillian Wald's Henry Street Settlement (HSS) House. HSS nurses made home visits and provided care to poor immigrant families living in overcrowded tenement houses. Later, Wald established the Red Cross Nursing Service. RNs employed through the Red Cross served as the PHC providers to rural communities (Keeling & Bigbee, 2005). The efforts of the Red Cross Nursing Service were foundational to the establishment of public health departments. Other early innovations that advanced nursing and improved the health of populations include the Frontier Nursing Service, established in 1925 to care for poor women and children in rural Kentucky; the establishment of nurse anesthetists, whose practice was documented during the American Civil War (Faut-Callahan & Kremer, 2000; Schreiber & MacDonald, 2003); and nurse-midwives, whose roles were first enacted by lay midwives in the 1700s (Hanson & Hamric, 2003; Keeling & Bigbee, 2005).

The formal role of the NP began with the efforts of Loretta Ford, an RN, and Henry Silver, a physician. Their collaborative effort facilitated the development of the first NP program at the University of Colorado in 1965 (Mason et al., 2000; Silver, Ford,

& Stearly, 1967). Regardless of the shortage of physicians in 1965, Ford did not perceive NPs as physician replacements. Instead, to Ford, the physician shortage provided an opportunity to implement changes in nursing and design a new type of service that was driven by the nursing process and used a holistic perspective. Ford believed that NPs were the extension of patients and their needs, not extensions of physicians (Houser & Player, 2004), and they increased access to health care for populations in lower socioeconomic communities with limited access to physician care (Silver et al., 1967). The implementation of this early NP role improved access to preventive health services and quality of care for low-income pediatric patients (Silver et al., 1967). Since 1965, the NP role has continuously evolved and in 2010 there were approximately 140,000 NPs practicing throughout the U.S. providing almost 600 million patient visits annually (American Academy of Nurse Practitioners, 2010).

The NP Role in Canada. Historically, Canadian RNs have also responded to the needs of underserved populations. Autonomous independent nursing practice can be traced back to the Augustine nuns in 1693 and later to the Grey Nuns (Canadian Nurse's History Collection, 2005). The Victorian Order of Nurses, established in 1897, provided home care to individuals and families (Canadian Nurse's History Collection). Established in 1893 as part of the Grenfell Mission, outpost-nursing stations grew out of the need to provide nursing care for First Nations communities in remote northern areas of Canada (Kaasalainen et al., 2010). As in the U.S., these early initiatives were foundational to the evolution of the NP role.

The NP role began in 1969 in Nova Scotia with Dalhousie University's Outpost Nursing Program, an educational program preparing RNs to address the needs of

residents in rural and remote areas of northern Canada (DiCenso et al., 2003). Other universities, such as the University of British Columbia (UBC) and McMaster University initiated educational programs in the early 1970s to prepare nurses to practice in expanded roles. These programs prepared nurses to provide PHC to families and to function as members of a team of professionals. They practiced in urban and rural settings, most notably in the province of Ontario (Haines, 1993; Mitchell, Pinelli, Patterson, & Southwell, 1993).

The Boudreau committee, established in 1971, defined the NP role and its functions, and established guidelines for the development of NP educational programs (Buzzell, 1999; Haines, 1993). The CNA issued a statement in 1972 stressing that the functions of the nurse should be tied to the needs of patients, that the presence or absence of other health professionals should not dictate the need for nursing, and that the NP role should not be defined in terms of its relationship to physicians (Haines, 1993).

One of the early sites to implement the NP role in urban Canada was a middle-class suburban neighborhood in Burlington, Ontario. Similar to the NPs that were educated at the University of Colorado, the nurses in Burlington completed a program at McMaster University specifically designed to prepare them to assume additional skills and provide PHC in family physician offices. Graduates of the program earned a certificate upon completion of the program (Spitzer, 1978). Spitzer and colleagues (1974) evaluated the outcome of NP role implementation in the first randomized controlled trial (RCT) conducted for this purpose. The experimental group of families (n=807) received care from NPs (n=2) who had completed the McMaster program and the control group of families (n=797) received usual care from family physicians (n=2).

Findings from the Burlington randomized trial indicated that having an NP in the practice improved patients' access to care. Within eight weeks after the implementation of the NP role, new families were accepted into what had previously been a saturated physician practice. Additionally, NPs practiced autonomously; physicians were not involved in the majority of care provided by NPs. Physical status and emotional and social functioning of patients receiving care from the NPs were similar to those receiving physician care. A major barrier to the implementation of NPs at the time of Spitzer et al.'s 1974 trial was that having an NP in a family practice decreased physician income since there was no mechanism for NPs to be remunerated through Medicare for their services (Mitchell et al., 1993; Morgan & Cohen, 1992; Spitzer, 1984; Spitzer et al., 1974). A limitation of this trial was the number of provider participants. The trial included one PHC practice comprised of two FPs and two NPs. Spitzer et al.'s (1974) landmark study of NP role implementation using an RCT is noteworthy, yet its limitations must also be acknowledged.

By the late 1980s, with the exception of Dalhousie University's program, lack of demand for NPs led to closure of most NP educational programs (DiCenso et al., 2003; Nurse Practitioners' Association of Ontario, 2006; Worster et al., 2005). Instead of continued role development and implementation, evolution of the role in Canada was suspended (DiCenso et al., 2003; Nurse Practitioners' Association of Ontario, 2006). Factors contributing to lack of demand for NPs included an oversupply of physicians, limited public awareness and understanding of the NP role, and an absence of the following: a remuneration mechanism that did not create a financial disincentive for physicians, legislation supporting the role, government funding for educational programs,

and support from organized medicine and nursing (Calnan & Fahey-Walsh, 2005; deWitt & Ploeg, 2005; Haines, 1993; Spitzer, 1984).

Since the mid 1990s, there has been a resurgence of interest in the NP role by federal and provincial governments as a way to influence changes in Canada's health care system (Hutchison, Abelson & Lavis, 2001; Lewis, 2004; Rachlis, 2003; Romanow, 2002). Alberta led the way by enacting legislation for NP practice in 1996 and Ontario in 1998 (Kaasalainen et al., 2010). These early efforts to regulate NP practice were significant because it was the absence of regulation that, in part, was a major barrier to NP role implementation.

For more than a decade governments, regulators, educators, employers, and prospective NPs across Canada have expended substantial resources to implement or expand the NP role. For example, in 2000 the Government of Canada funded the \$800M Primary Health Care Transition Fund (PHCTF) (Health Canada, 2004) to support provincial and territorial initiatives to introduce new approaches to PHC delivery, including expanded efforts to implement the NP role in the health care system. One pan-Canadian project that was funded through the PHCTF was the Canadian Nurse Practitioner Initiative (CNPI). Health Canada provided \$8.9 million to the CNA through the PHCTF. The initiative began in 2003 and was completed in 2006. Consultation with representatives of governments, nursing organizations, regulators, employers, educators and other health professionals across Canada resulted in a framework for integration and sustainability of the NP role (CNPI, 2006). As a result of the CNPI, there is a movement to standardize educational programs and NP regulation across the country (CNPI, 2006; DiCenso et al., 2008). The number of NPs across Canada has increased steadily since

2003, and the majority work in PHC settings that include community health and long-term care settings (CIHI, 2008). In spite of renewed interest in the NP role, as of 2008 there were less than 2,000 NPs registered in Canada (CIHI, 2008). The CNPI identified multiple barriers to NP role implementation (Calnan & Fahey-Walsh, 2005) and best practices about how to implement the role are uncertain.

Through this brief examination of the history of the NP role I have discussed the NP role as one strategy to improve access to health care (Calnan & Fahey-Walsh, 2005; Tarrant & Associates, 2005). Even though renewed interest in the NP role is gaining impetus across the country, the future of the role continues to remain uncertain.

Evolution of the NP Role in BC

At the time this study was conducted (2009), the province of BC was in the beginning stages of NP role implementation. In the 1970s, discussions related to expanding the role of the nurse and the NP role were occurring in BC as in other provinces across the country and in 1973, the BC MOH endorsed the concept of the expanded role for nurses (Haines, 1993). Around this same time, the University of British Columbia (UBC) initiated a rural health program to expand the role of nurses. The program was not an NP program; however, curriculum content included NP-related knowledge and skills such as assessing and treating health conditions. Particular attention was paid to women's health concerns and care of older adults in remote areas (S. Rothwell, personal communication August 23, 2007). Nurses educated through UBC's program were employed in rural and remote northern communities of BC. In the 1970s, BC had no regulatory or legislative authority to enable NP practice; therefore, nurses

relied on delegated medical directives to enact their expanded skills (Schreiber et al., 2003).

In spite of the early interest expressed by the MOH in the 1970s, the NP role did not continue to evolve in BC. Some nurses continued to practice in NP-like roles and some used the title NP (Schreiber et al., 2003). The UBC program lasted only a few years before it closed. It was not until the early 1990s that a renewed interest in the NP role began to re-emerge as the MOH searched for cost effective means to deliver quality PHC (Haines, 1993). There was also recognition that for the NP role to find firm footing in BC, much discussion and consultation among stakeholders and decision-makers was needed (RNABC, 1997). Since a mixture of terms such as expanded, specialized, and advanced were in use to describe the NP role, it was decided that a clear definition of these terms was needed in order for the MOH and the Registered Nurses Association of BC (RNABC), now the CRNBC, to move forward with any serious discussion about the implementation of the NP role in the province (RNABC, 1997).

The need for discussion and consultation resulted in RNABC generating a discussion paper on advanced nursing practice. Drawing on the work of the Canadian Association of Schools of Nursing, the College of Registered Nurses of Nova Scotia, the American Nurses Association, and current literature at the time, RNABC identified ten principles related to advanced nursing practice. RNABC's original ten guiding principles for advanced nursing practice were the following:

1. Competencies fundamental to advanced practice are incorporated into the definition of advanced nursing practice.

2. Although advanced nursing practice may include acts traditionally considered medical in nature, this aspect of practice is not essential or central to advanced practice nursing.
3. Advanced nursing practice occurs at the boundaries of nursing's traditional scope of practice and contributes to the advancement of the profession. Advanced nursing practice is grounded in nursing knowledge and skills that are used in purposeful and deliberative ways to meet the health needs of clients. Advanced nursing practice reflects accountable practice that is autonomous and independent in nature.
4. Advanced nursing practice competencies are incorporated into the CNS, NP, and nurse-midwife roles.
5. The use of the NP title by nurses working in expanded roles is not appropriate unless the nurse is able to demonstrate all competencies required for advanced nursing practice.
6. Advanced nursing practice is an umbrella term and not a specific role.
7. Competencies for advanced nursing practice are most effectively obtained through graduate nursing education.
8. Advanced nursing practice includes competencies and capabilities related to education, administration, research, and clinical practice.
9. The professional practice model is the most desirable regulatory approach.
10. CRNBC should consider a permit system for reserved acts (RNABC, 1997).

These principles formed the framework for later consultations on advanced nursing practice with nurses and other stakeholders across the province. Following a consultative process, RNABC used the discussion paper to reach consensus among

stakeholders regarding a definition of advanced nursing practice, a standard for educational preparation and competencies for NPs, and development of nursing roles that were in the realm of advanced nursing practice (RNABC, 1997). RNABC later used this framework to develop competencies for NP practice. As a follow up to RNABC's discussion paper, the MOH commissioned an environmental scan in 1999. The MOH used the environmental scan's review of the literature to gain enhanced understanding of the concept of advanced nursing practice across Canadian jurisdictions (Manning, 1999). Information obtained from the environmental scan was intended to inform future MOH decisions regarding advanced nursing practice in BC. Manning's (1999) environmental scan revealed a lack of clarity around advanced nursing practice roles, and inconsistent definitions, educational preparation, and scope of practice across the country. As well, with the exception of Ontario and Newfoundland/Labrador, many provinces lacked statutory requirements for an autonomous NP role. As a result, the majority of nurses who had assumed NP-like roles were only able to enact additional skills outside their legislated scope of practice through the use of explicit and implicit medical directives. In other words, from a legal perspective, a physician delegated to the nurse various skills and tasks. Thus the nurse performed various skills under the license of a physician. In BC, many nurses in rural and remote northern communities practiced in this manner, often with only implied or unwritten delegated authority (Manning; Schreiber et al., 2003).

Findings from the environmental scan resulted in several recommendations to the MOH which included that the MOH determine the need for advanced practice nursing roles; identify and consult with advanced practice nursing "champions" prior to

establishing any policies related to advanced nursing practice; consult with physicians and other stakeholders prior to establishing advanced nursing practice policies; evaluate the CNA document on advanced nursing practice, that was to be released in 2000, for relevance to BC; review the Health Professions Council’s recommendations related to nursing scope of practice; encourage, support, and identify research related to advanced nursing practice policy; and advocate for advanced nursing practice policy that was collaborative and multidisciplinary in scope (Manning, 1999). In these recommendations, Manning acknowledged the possibility of barriers to policy implementation, encouraged a consultative participatory approach to policy implementation, and promoted the use of evidence to support decisions. A year after the completion of the environmental scan, the MOH announced its decision to introduce NPs into the BC health care system to improve public access to health care (CRNBC, 2006a).

Partnering with RNABC, the MOH set out on a consultative process to introduce the NP role that would take five years to complete [2000-2005]. I elaborate on this process below. From the beginning, the process was consultative in nature. RNABC involved various decision-makers, nurses, educators, physicians, and NPs in BC, across Canada, and from the U.S. in the process of designing its regulatory framework. The MOH developed the scope of practice for NPs in BC, addressed employment issues, and funded educational programs (CRNBC, 2006a). Upon completion, all regulatory and legislative components were in place to allow NP registration. In Table 1, I provide an overview of the evolution of the NP role in BC.

Table 1. History of NP Role Evolution in British Columbia

Year	Event
1970	University of British Columbia establishes Expanded Role of the Nurse program to prepare graduates for “nurse practitioner-like” roles.

- 1973 British Columbia provincial joint committee on the expanded role of the nurse is established. Ministry of Health endorses the concept of an expanded role of the nurse.
- 1993 The Ministry of Health in British Columbia expresses interest in revisiting the concept of the nurse practitioner.
- 1996 Health Professions Council is appointed to review existing legislation and recommend changes including a system for designating reserved acts for nursing.
- 1997 Registered Nurses Association of British Columbia commissions a discussion paper on advanced practice nursing entitled *Towards a Definition of Advanced Nursing Practice*.
- 1999 British Columbia Ministry of Health applies for and receives start-up funding to create a team to explore new and expanded roles for nurses. Crickmore and Davidson wrote the application and brought in Schreiber and MacDonald to help write the Canadian Health Services Research Foundation grant application. British Columbia Ministry of Health commissions Manning (student at the University of British Columbia), as her Master's in Policy Application project, to conduct *An Environmental Scan of Advanced Nursing Practice*.
- 2000 Canadian Health Services Research Foundation, Nursing Research Foundation, British Columbia Health Research Foundation, British Columbia Ministry of Health, and the University of Victoria co-fund research proposal *Advanced Nursing Practice: Opportunities and Challenges in British Columbia*. This research team was comprised of Schreiber (PI), MacDonald (both of University of Victoria), Davidson, Crickmore (both of Ministry of Health), Regan, (Registered Nurses Association of British Columbia), Moss (Capital Health Region now Vancouver Island Health Authority), and Pinelli (McMaster University).
British Columbia Ministry of Health announces decision to introduce nurse practitioners in British Columbia health care system and partners with Registered Nurses Association of British Columbia to develop a plan for the implementation of the nurse practitioner role by 2002.
- 2001 The Ministry of Health Planning funds study *Advanced Nursing Practice: Exploring the Potential for the Development of the Nurse Practitioner Role in British Columbia*, conducted by MacDonald and Schreiber.
- 2002 Registered Nurses Association of British Columbia's Board of Directors approves *Competencies Required for Nurse Practitioners in British Columbia*.
- 2003 The Health Professions Act is amended to allow Registered Nurses Association of British Columbia to regulate nurse practitioners. Streams of nurse practitioner practice (Adult, Pediatric, Family: All Ages) are adopted by Registered Nurses Association of British Columbia's Board of Directors. British Columbia's Ministry of Advanced Education announces funding for 30 NP seats at the University of British Columbia and the University of Victoria.
- 2004 Registered Nurses Association of British Columbia's Board of Directors

2005	<p>approves <i>Framework for Regulation of Nurse Practitioners in British Columbia</i>; University of British Columbia and the University of Victoria's nurse practitioner programs are approved by Registered Nurses Association of British Columbia.</p> <p>Health Professions Act approves nurse practitioner regulation. Registered Nurses Association of British Columbia becomes College of Registered Nurses of British Columbia and its board of directors approve prior learning assessment and recognition process as a way to recognize registered nurse practitioners from other provinces. Additional seats are allocated to the University of Northern British Columbia's nurse practitioner education program. First nurse practitioners graduate from the University of British Columbia and the University of Victoria. First nurse practitioners hired into British Columbia health authorities.</p>
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Following recommendations from the environmental scan, two additional studies were undertaken to help guide policy related to advanced nursing practice. The study, *Advanced Nursing Practice: Opportunities and Challenges in British Columbia (ANP Study) (2000-2003)* was funded primarily by CHSRF and the MOH. The purpose of the research was to assist the MOH and RNABC to understand how best to educate, regulate, and employ NPs (Schreiber et al., 2003). In this three-phase study, Schreiber et al. (2003) first explored existing advanced practice-type roles in BC, and then surveyed potential employers in the province. Phase one provided qualitative and quantitative data from nurses in advanced nursing practice roles, nurses who could potentially assume advanced nursing practice roles, and health care administrators across BC. Phase one findings revealed multiple understandings of advanced nursing practice and a variety of titles and types of educational preparation for nurses in advanced roles (Pauly et al., 2004; Schreiber et al., 2003).

In phase two, the research team conducted a series of five qualitative case studies of models of advanced nursing practice located in other jurisdictions in Canada and the U.S.. The intent of phase two was to explore models of advanced nursing practice that

could be appropriate in BC (MacDonald et al., 2005; MacDonald, Schreiber, Hammond, & Wright, 2001). The final phase of the ANP Study brought together various decision-makers, nurses, physicians, NPs and administrators in a two-day Think Tank. Participants discussed data obtained from phases one and two. Key themes emerging from the Think Tank supported the need to establish a clear definition of the NP role with a protected title; provide remuneration to NPs in the form of salary rather than fee-for-service; develop a professional practice regulatory framework that protected the title and was not restrictive so that the role could be implemented in a variety of settings including acute care, PHC centres, long-term care, mental health facilities, urban centres, and rural and remote communities; secure sustained funding for NP positions that was related to population health needs; and establish graduate education as the minimum preparatory requirement for entry into practice (Schreiber et al., 2003). The researchers submitted the final report and recommendations to the MOH in March 2003. Final recommendations from the overall study were that BC should develop a broad scope of NP practice; confirm RNABC as the regulatory body for NP practice; acknowledge that NP authority to practice should be based on education and competence rather than on medical directives, protocols, or lists of drugs for prescriptive authority; maintain the nursing aspect of the role; develop supports for continued competencies; support Master's level preparation for those assuming the role; and prepare a plan for implementation that would educate the public and other providers about the role (Schreiber et al., 2003).

The recommendations from the *APN Study* mirrored those from the 1997 RNABC discussion paper. Recurrent themes from the *APN Study* and the discussion paper were graduate education for NPs, a broad scope of practice to enable role autonomy and

independent nursing practice, and an emphasis on nursing practice rather than the acquisition of skills that may have been previously seen as medical in nature (RNABC, 1997; Schreiber et al., 2003).

In a second funded study, *Exploring the Potential for the Development of the Nurse Practitioner Role in British Columbia (NP Study)*, the researchers (MacDonald et al., 2001) conducted three case studies to explore existing NP-like roles in BC. Data were collected from interviews with nurses (n=3) in NP-like roles; other participants in the health setting such as nurses, clients, a First Nations Band Chief, physicians, and other staff; and from observations in three settings. The *NP Study* identified several barriers to the introduction of the NP role in BC including lack of funding for positions, a paucity of NPs in BC, physician resistance, and a restricted scope of practice (MacDonald et al., 2001). Because there were no formally recognized, legislated, or regulated NP roles in BC at the time of this study, these barriers were not surprising. Concurrent to the *NP Study*, RNABC used a consultative approach to develop NP competencies; these were subsequently published in 2003. I elaborate more on the NP competencies in the following section related to the regulatory framework for NPs in BC.

In May 2003 the BC government proclaimed the Health Professions Act Amendment (HPA). This amendment dissolved separate acts that governed health professionals and placed all professions under the HPA. The HPA is a common regulatory framework that governs all health professions. Nursing became the first profession under the HPA (MOH, 2006). The HPA changed the governance of nursing in BC. These changes established the scope of practice for RNs and NPs, and allowed for NPs as a new category of nursing with title protection (MOH, 2006). Additionally the

HPA identified reserved actions for RNs, including NPs, and changed RNABC to CRNBC with regulatory authority for nursing. The HPA also mandated that CRNBC establish the Standards Committee, (Health Professions Act, 2005). Various acts and regulations had to be amended prior to enactment of legislation enabling the NP role as a category of nursing. These included the Pharmacists, Pharmacy Operations and Drug Scheduling Act; the Motor Vehicle Act; the Medicare Protection Act; and a variety of other Acts. Changes to the Medicare Protection Act enabled NPs to make referrals to diagnostic facilities and medical specialists (MOH, 2006). Along with announcing the new category of nursing, the MOH and the Ministry of Advanced Education announced funding for NP education programs at UVIC (15 seats) and UBC (16 seats) to begin September 2003 (MOHS, 2003). Fifteen additional NP student seats were allocated to the University of Northern British Columbia's (UNBC) NP program in 2005 (CRNBC, 2006a). This funding allowed three BC universities to offer family NP programs. UVIC and UNBC NP programs are offered by distance, while UBC is an onsite program. UNBC's program focuses on rural and Aboriginal health. The year 2004 saw the completion of two major milestones: CRNBC approved the *Framework for Regulation of Nurse Practitioners in British Columbia*, which will be discussed in more detail later, and approved UBC and UVIC's NP programs.

NP legislation under the HPA became effective August 19, 2005. In October 2005 the BC government put forth the Health Statutes Amendment Act, Bill 15 that supported the role of the NP and gave NPs autonomy and flexibility to practice (MOH, 2005). The Act identified the scope of practice of NPs and included title protection and reserved actions for NP practice (Health Professions Act, 2005). The first cohort of NPs graduated

from the University of Victoria (UVIC) and the University of British Columbia (UBC) in October 2005 and hiring of NPs began in health authorities across BC. The MOH published a *Resource Manual for Nurse Practitioners* in 2006 to provide consolidated operational and administrative information necessary for NP practice (MOH, 2006). This manual has not been updated since 2006.

The collaborative and consultative evidence-based processes used by the MOH and CRNBC guided the regulatory and legislative frameworks that now direct NP practice. Guiding recommendations from stakeholders included providing ongoing funding for NP positions, title protection, clear practice standards, and a broad scope of practice. The regulatory framework ensured that NPs have sole authority and accountability for their practices, thus eliminating the need for delegated medical functions (Pauly et al., 2004; Schreiber et al., 2003). The legislative and regulatory frameworks ensured the NP title was protected, positions were salaried and funded through regional health authorities, graduate education was required, and applicants were required to pass registration examinations. The NP scope of practice was intended to allow for independent and autonomous NP practice, with minimal restrictions from standards, conditions, or limitations (CRNBC, 2006a; CRNBC, 2006b). As such, NPs were expected to increase accessibility to acute, long-term and PHC services, expand health care options, and fill gaps in the current system of health care delivery in BC (RNABC, 2004).

The partnership between the MOH and RNABC to develop the legislative and regulatory frameworks for NP implementation began in 2000. At that time it was decided that RNABC would develop competencies for NP practice as well as a regulatory process

and the MOH would develop the scope of practice and establish legislative authority for the role.

Regulatory Framework. CRNBC's regulatory framework for NPs contained three separate but interdependent components: (a) competencies for practice and approval of NP educational programs, (b) registration requirements and, (c) practice oversight including renewal of registration (CRNBC, 2005a). Prior to registering NPs in the province, CRNBC had to establish competencies required for NP practice and to develop mechanisms to recognize NP educational programs. In October 2003, CRNBC published the core NP competencies and the application of the competencies to the three streams (adult, pediatrics, and family/all ages) in which CRNBC registers NPs. The competencies were revised in 2010 and became effective January 2011 (CRNBC, 2010a). CRNBC published a second supporting document outlining NP scope of practice and describing standards, limits, and conditions for NP practice that is updated annually (2010b). The *Scope of Practice: Standards, Limits, and Conditions* outlines professional and practice standards for diagnosing and managing health conditions, diagnostic testing, and pharmacotherapeutics they may order and prescribe. These two documents support NP legislated scope of practice.

NP Competencies. CRNBC identified four interrelated dimensions of NP competence with each dimension contributing to the whole of NP competency. CRNBC expects NPs to exhibit all competencies simultaneously and synergistically (CRNBC, 2003; CRNBC, 2010a). NPs are expected to exhibit the competencies of a generic RN and all competencies of advanced nursing practice, including core NP competencies. Core NP competencies are common to all NPs regardless of whether practice occurs in

acute, long-term, or PHC settings. These protected, legislated competencies are grouped into four broad domains: (a) assessment and diagnosis, (b) health care management, (c) health promotion and illness/injury prevention, and (d) professional responsibilities and accountability (CRNBC, 2010a). NPs apply these combined competencies to a stream of NP practice (family/all ages, adult, or pediatric). Explicit in the *Competencies Required for Nurse Practitioners in British Columbia* (2010a) document is CRNBC's expectation that all competencies are enacted synergistically. The *Scope of Practice: Standards, Limits, and Conditions* provides a list of conditions that novice NPs are expected to be able to diagnose and treat independently and in collaboration with a physician (CRNBC, 2010b). The *Scope of Practice* document also contains lists of diagnostic tests NPs may order and interpret and exclusionary drugs that NPs may not order, or can only renew. CRNBC established a Standards Committee responsible for recommending changes to the standards, limits, and conditions of NP practice. The committee consists of two physicians, a pharmacist, a government and public representative, and seven RNs or NPs, including a representative for NP educational programs (CRNBC, 2005b). NPs maintain their registration with CRNBC by demonstrating continued competence and practicing as an NP a minimum of 300 hours per year.

In the original 2003 version of NP practice competencies, CRNBC integrated the CNA's advanced nursing practice competencies of research, leadership, collaborative practice, and change agent (CNA, 2002; CRNBC, 2003). In 2008 CNA revised the advanced nursing framework (CNA, 2008a), and in 2010 the *Canadian Nurse Practitioner Core Competency Framework* was also revised (CNA, 2010a). CRNBC adopted the *Canadian Nurse Practitioner Core Competency Framework* with slight

modifications to expand expectations for health promotion. As a result, BC's NP competencies closely reflect those established by CNA and are aligned with the national standard for NP competencies (CRNBC, 2010a).

NP Registration. CRNBC defines NPs as RNs who have achieved the CRNBC competencies that are required for NP registration. Registered NPs are competent to diagnose and treat acute and chronic health illnesses, including prescribing therapies within a holistic nursing framework (CRNBC, 2005a). There is a stated expectation by CRNBC that the NP competencies are usually achieved through graduate education.

Obtaining registration in BC requires successful completion of two examinations administered by CRNBC. The first is a written examination and the second is an objective, structured clinical examination (OSCE). Applicants must successfully complete both examinations before they are fully registered with the CRNBC. NPs who graduate from a CRNBC approved NP program are granted provisional NP registration until they are able to complete the two examinations. A condition of provisional registration is that they must have access to a physician or registered NP for consultation and assistance with prescription writing (CRNBC, 2006c). At the time this study was conducted (2009), CRNBC did not automatically register NPs who had been registered in other provinces or countries; this meant that NPs relocating to BC had to successfully complete the two examinations (RNABC, 2004).

Although graduate education is stated as a requirement for practice, nurses who have been working in NP-like roles may challenge the education requirements by completing a prior learning assessment portfolio. The process, Prior Learning and Assessment Recognition Framework (PLAR), allows nurses to develop a portfolio that

demonstrates their knowledge and skills obtained through previous work experience. CRNBC assesses the portfolio, and if deemed adequate, the nurse then is eligible to take the two registration examinations (RNABC, 2004).

In summary, after five years of development, the regulatory and legislative frameworks for NP practice were established in BC. Recommendations gleaned from early consultative and participatory processes are evident in the final documents published by CRNBC and the MOH. For example, recommendations for a professional practice model for regulation, use of reserved acts and protected title, placement of NP competencies within the context of nursing, no medical directives, and graduate education are all incorporated into the regulatory and legislative frameworks (MacDonald et al., 2001; Manning, 1999; RNABC, 1997; Schreiber et al., 2003).

NPs are expected to increase patient access to health care services in acute, long-term, and PHC settings; expand health care options; and fill gaps in the current system of health care delivery in BC (RNABC, 2004). This mandate is similar to expectations for NP role implementation elsewhere (Mason et al., 2000; Tarrant & Associates, 2005) and congruent with NP practice outcomes demonstrated through research.

NP Practice Outcomes

Historically the NP role was established to increase access to health care for underserved populations in the U.S. and Canada (Mason et al., 2000; DiCenso et al., 2003). Economic constraints, political agendas, and changes in human resource distribution contributed to the ongoing development of NP roles across diverse health care settings in both countries (Fenton & Brykczynski, 1993; Horrocks, Anderson, & Salisbury, 2002; Ingersoll, McIntosh, & Williams, 2000; Irvine, Sidani, & McGillis Hall,

1998; Pringle & Doran, 2003; Worster et al., 2005). From the inception of the role NPs were expected to reduce the costs of health care, provide high quality care (Nies et al., 1999; Sidani & Irvine, 1999), and increase access to health care services (DiCenso et al., 2003; Fahey-Walsh, 2004; Ingersoll et al., 2000). The NP role has been evaluated more than any other role in health care and much of the early research compared the care provided by NPs and physicians to establish credibility and safety of the role.

Several RCTs and systematic reviews have consistently demonstrated that NPs provide care that is comparable to or better than the care provided by physicians, and that patients are satisfied with the care offered by NPs (DiCenso et al., 2007; Mitchell et al., 1993). Brown and Grimes' (1993) meta-analysis of studies of NPs and certified nurse midwives (CNMs) in primary care located 12 RCTs from more than 900 articles and studies. Findings from the meta-analysis indicated that NPs provide care comparable to physicians and at reduced costs. Similarly, the systematic review of studies (n=11 RCTs and 23 observational studies) completed by Horrocks et al. (2002) comparing NPs to physicians providing first contact primary care to patients with undifferentiated health problems indicated that patients who received care from NPs were as satisfied with care from NPs as with that of physicians, and cost of care and short-term outcomes were similar between providers. NPs spent more time with patients and ordered more diagnostic testing. NPs scored better on communication with patients than physicians and provided more education on self-care to patients. The limitations of the systematic review conducted by Horrocks et al. (2002) include the difficulties with comparing NP and physician practices, determining if NPs have the same level of autonomous practice across studies, as well as the heterogeneity among the studies. However, the number and

quality of the studies that were included in the review and the consistency of the findings are strengths that add credibility to the conclusion that NPs are safe and effective primary care providers.

Several other studies demonstrating outcomes of NP care have been conducted since the systematic review was published. Using data obtained from a larger research project conducted by Mundinger et al. (2000), Lenz, Mundinger, Hopkins, Lin, and Smolowitz (2002) analyzed data obtained from chart audits of 145 adult patients with type 2 diabetes treated by either an adult NP (n=86) or a physician (n=59) in ambulatory care clinics. The purpose of this study was to compare two types of providers with respect to patient education, monitoring, and referrals of patients with type 2 diabetes. All of the NPs (n=7) and physicians (n=17) were salaried and worked part-time in one of the clinics and full-time as faculty in either a nursing or medical school. The NPs practiced independently and managed one of the ambulatory clinics while the physician group managed a separate ambulatory clinic. NPs were more likely than physicians to document general diabetes education related to nutrition, weight, exercise, and medication (84.9% vs. 42.4%). NPs ordered urinalysis (80.2% vs. 55.9%) and glycosylated hemoglobin (HbA1c) (81.4% vs. 66.1%) more often than physicians. Patients of NPs (n=47) and physicians (n=30) had similar mean HbA1c outcomes (9.72 vs. 9.84). The study contributes to the evidence that NPs provide more patient teaching and counseling than physicians. A limitation of the study is that as a chart audit it may demonstrate differences in NP and physician documentation and not differences in actual practice (Lentz et al., 2002).

In a follow-up study of patients previously seen by either an NP or physician (Mundinger et al., 2000), Lenz and colleagues (2004) compared outcomes (health status, satisfaction with care, utilization of health services, and selected disease-specific indicators) of adult patients (mean age 46.5 years, 81.8% female), who had been randomly assigned to either NP (n=222) or physician (n=184) primary care practices at two years from the date of their initial visit. Data were collected from patients by interviewers who verbally administered the Medical Outcomes Study Short Form (MOS SF-36) and the Primary Care Assessment Survey. The SF-36 is used to measure health status and the Primary Care Assessment Survey is used to measure patient satisfaction. There was no significant difference between self-reported health status of patients followed by NPs or physicians. Of the 222 patients assigned to the NP practice, 149 (67%) reported conditions of asthma, diabetes, or hypertension. In the physician practice, 123 of the 184 (67%) patients indicated they had asthma, diabetes, or hypertension. The Primary Care Assessment Survey did not detect any difference in satisfaction with primary care provider between the groups of patients.

The Lenz et al. study (2004) was phase two of the original study conducted by Mundinger et al. (2000). The study is noteworthy because it followed the same patients seen by NPs and physicians over a two-year period, thus providing long term follow-up data and thereby addressing a criticism of the first phase of the study. The study also found no difference between patients followed by NPs (n=222) or physicians (n=184) in self-reported health status, physiological indicators related to hypertension and asthma, satisfaction with care, or utilization of health services at two years (Lenz et al., 2004). Limitations of this study included the small number of patients who remained in the study

after two years. Thirty-five percent (35%) of patients were lost to follow-up (n=405). Of those who participated in phase one of the study, 66% (n= 735) were eligible to participate in phase two. Of the patients who were eligible to participate in phase two, only 55% (n=406) returned to their originally assigned practice. Patients were excluded from the study if they obtained care from a provider other than the one they were originally assigned to in phase one. Excluding patients who sought care from other providers may have introduced bias to these results. Patients may have sought other care because of dissatisfaction with the care received from their assigned provider. The small sample size resulted in low statistical power analysis for physiological and satisfaction variables.

Litaker et al. (2003) examined the effects of care delivery by an NP-physician team on chronic disease outcomes. Adult patients newly diagnosed with uncomplicated non-insulin dependent diabetes or hypertension were randomized into outpatient practices of either an NP-physician team (n=79) or physician only (n=78). This study's intervention consisted of adding an NP to one physician practice. Indicators of the process and quality of care were the presence or absence of annual ophthalmologic and foot examinations, HbA1c levels, and routine annual immunizations. Health care education was determined by documentation of discussions of medication use and side effects, dietary and lifestyle issues, and symptom management. Three instruments were used to assess patients' perceptions and satisfaction with care. The Health Survey Short Form-12 (SF-12) assessed quality of life, the Diabetes Quality of Life (DQDL) questionnaire determined patients' perceptions of the impact of diabetes on their quality of life, and the Patient Satisfaction Questionnaire measured patients' perceptions of care

for diabetes and hypertension. At the end of 12 months, 78% of patients cared for by the NP-physician team had received influenza vaccination and only 37% in the usual care group had received the same vaccination. All NP-physician team patients had received a foot examination in the past twelve months, but only 36% of patients receiving usual care had a foot examination. All patients receiving team care received education related to smoking cessation (100% vs. 20%) and medication side effects (100% vs. 49%). Patients receiving care from the NP-MD team received 180 minutes of care throughout the year versus 85 minutes for the usual care group. Patients treated by the NP-MD team reduced their mean HbA1c levels by 0.7% and increased high lipid density (HLD-c) levels by 7%.

Limitations of this study included the small total sample size (n=157) and a relative short duration of 12 months. The cost of care provided by the NP-MD team (\$134.68 [U.S.]) was higher per patient than those receiving usual care (\$93.70 [U.S.]). Although the study draws no conclusions as to the reasons for increased costs associated with a team approach to care, continuing to monitor patient outcomes over a longer period of time may have demonstrated a reduction in overall costs over time. Management of chronic health conditions needs to be monitored over longer periods of time in order to evaluate effects on morbidity and mortality. Short term increased costs may be balanced by greater savings over the long term by reduced costs associated with target organ damage (Litaker et al., 2003).

Patient satisfaction with NP care was demonstrated in a large mixed method provincial study of NP integration in Ontario (DiCenso et al., 2003). Adult patients who had seen an NP in a PHC setting in the past 12 months (n=260) completed self-administered satisfaction surveys. Surveys were distributed to patients who consented to

participate at the time of their appointment with an NP. Patients were asked to indicate what they liked and did not like about seeing an NP and their level of satisfaction with seeing an NP. Patients indicated several benefits to seeing an NP: 85.7% liked the amount of time the NP spent answering questions, 82.9% indicated the quality of care received was excellent, and 79.1% found it easy to talk with the NP. Patients were highly satisfied with the way the NP spoke and listened (91%), the amount of time the NP spent with them (88%), and the care received from the NP (87.1%). Ninety four percent (94%) of patients were satisfied with the amount of wait time for an appointment with the NP compared to 61% who were satisfied with wait times for an appointment with a physician (DiCenso et al., 2003).

Other studies have demonstrated that NPs practicing collaboratively with other providers increased emphasis on chronic disease management (Russell et al., 2009), increased access to PHC (Martin-Misener, Downe-Wamboldt, Cain, & Girouard, 2009), and reduced wait times in emergency departments (Ducharme, Alder, Pelletier, Murray, & Tepper, 2009).

The significance of this body of research is that it consistently demonstrates that NPs provide safe effective care, patients are satisfied with care provided by NPs, and patient health outcomes are improved. This evidence supports the BC government's expectation that NPs will provide safe, competent, acceptable care to British Columbians. Similarly, the health authority in which this study occurred expected NPs to improve patient outcomes and functioning of multidisciplinary care teams. These studies provide evidence that NPs have the potential to fulfill this mandate as well. However, multiple facilitators and barriers to successful NP role implementation have been identified in

previous studies conducted in Canada and elsewhere. These factors will determine the ability of NPs to enact their role and thus fulfill the anticipated outcomes of NPs in the health care system. It is unknown what facilitators and barriers currently exist within BC's health care system.

NP Role Implementation

Complex organizational systems function synergistically to influence expected outcomes of any new initiative (Shadish, Cook, & Leviton, 1991). Implementing the NP role in a health care system does not occur in isolation of the rest of the system: contextual and environmental issues influence the implementation process. Factors affecting the success or failure of the implementation process include the degree of commitment to the role by those implementing it, the presence of change agents, the political environment, governmental and organizational structures, and cultural traditions (King et al., 1987; MacDonald, 1998). The success of implementation drives the ability of NPs to integrate into the health system. Successful integration influences the ability of NPs to enact all domains of their role and achieve expected outcomes (Bryant-Lukosius et al., 2004). Historically, NP role implementation in Canada has suffered from a lack of legislative and regulatory authority, conflicting definitions, multiple titles, and inconsistent educational requirements (Bryant-Lukosius & DiCenso, 2004; Dunn & Nicklin, 1995; Micevski, Mulcahy, Belford, & Kells, 2004; Schreiber et al., 2003).

Barriers to NP Implementation. Two Canadian provinces, Newfoundland and Labrador (Goss Gilroy Inc., 2001) and Ontario (DiCenso et al., 2003), evaluated the implementation and integration of the NP role into PHC settings. Each study identified similar barriers. In Newfoundland and Labrador self-administered questionnaires from

NPs (n=22), health professionals from three geographic sites (n=254) and physicians (n=11) found barriers to NP role implementation including the degree of: 1) physician support and acceptance of the NP role, 2) management support and feedback, 3) planning for role introduction, 4) role clarity within the regulatory framework, 5) long-range human resource planning, as well as restrictive prescriptive authority for medications and diagnostic tests (Goss Gilroy, 2001).

A large mixed methods study in Ontario (DiCenso et al., 2003) identified similar barriers to the integration of NPs in the province of Ontario. Participants in this provincial study included NPs (n=253), physicians who worked with (n=226) and who did not work with (n=492) an NP, and patients (n=260) who had been seen by an NP in the previous two weeks. Information was elicited from all three groups by surveys. The NP survey was developed using the Misener NP job satisfaction scale, the Jones and Way scale for collaboration, and questions designed to address the research questions. Surveys were mailed to all nurses who were registered with the College of Nurses of Ontario as RN extended class (EC). RN (EC) was, at the time, the designation used in Ontario to indicate nurses practicing in NP roles. NPs were asked to identify legislative, regulatory, or policy issues that were barriers to their practice. Sixty-two percent (n=139) identified health care financing of NP positions, 44% indicated legislation related to the role, and 31% limitations of funding for NP positions as barriers to their ability to fulfill their role. NPs were also asked to indicate the most negative aspects of their role. Forty percent (40%) indicated lack of physician understanding of their role, 27% indicated inadequate remuneration for their work, and 23% rated the inability to work autonomously as negative aspects of their role. Barriers identified by physicians who had experience

working with an NP (n=226) included the structure of the physician/NP working relationship (63%), the NP's expertise (56%), the NP's practice style (47%) and inadequate funding for NP salaries (46%) (DiCenso et al., 2003).

In the province of New Brunswick (NB), Gould, Johnstone, and Wasylkiw (2007) carried out semi-structured interviews with self selected NPs (n=7) to explore their personal satisfaction with the role and their patients' acceptance of them as PHC providers. At the time of the interviews there were 9 NPs registered in NB. Three themes emerged for data analysis. These were care philosophy, pioneering outlook, and barriers. NPs identified an organizational hierarchy that positioned physicians over NPs as a barrier to working collaboratively as a member of a health care team. The fee-for-service model of remuneration for physicians was also perceived as a barrier to collegial NP-physician relationships because physicians viewed NPs as a threat to their (physicians) income. In the province of NB, NPs were not allowed to directly refer patients to medical specialists. Patients first had to see a family physician who initiated the referral. NPs in this study perceived this process as a barrier to practice (Gould et al., 2007).

Acute Care Settings. Van Soeren and Micevski (2001) used a self-administered researcher developed questionnaire with acute care NPs (ACNP) (n=14), physicians (n=12), administrators (n=9), and RNs (n=34) to identify barriers to NP role implementation in an acute care setting in Ontario. In this study, on a scale of 1-5, with 5 indicating the highest ranking, ACNPs ranked a lack of mentorship for NPs assuming the role (3.8) as the highest barrier to role implementation, while the other participants ranked lack of knowledge of the role as a barrier. Qualitative data from the survey suggested that physicians, administrators, and staff nurses wanted to have a better

understanding of the role and how it would function prior to implementation. This study is limited by its sample size (n=69) and the limited number of NP perceptions elicited (n=14). The questionnaire required respondents to choose among five choices thus limiting other possible choices.

Thrasher and Purc-Stephenson (2009) used face-to-face semi-structured interviews with NPs (n=6), physicians (n=6), RNs (n=6) and managers (n=6) in six emergency departments in Ontario to gain a broad perspective on implementation issues. The majority of the emergency departments were located in urban settings (66.7%), were part of teaching hospitals (66.7%), had annual patient volumes of more than 30,000 (83.3%), with physicians working in the emergency departments remunerated through alternative funding (66.7%). Five of the emergency departments employed PHC NPs and one employed an ACNP. Using a grounded theory approach, the researchers identified fee-for-service physician remuneration and inadequate definition of the role as barriers to role implementation. Participants also identified the lack of prior discussion of the role with staff as a barrier to acceptance and understanding of the NP role. A strength of this study is the use of a qualitative approach to identify participants' perceptions of the NP role and its implementation in emergency departments. A limitation of qualitative research can be the use of a small number of participants. However, Thrasher and Purc-Stevenson (2009) interviewed participants from a variety of roles in six different emergency departments, which contributes to the strength of the study.

Cummings, Fraser, and Tarlier (2003) also considered barriers to NP role implementation in a study conducted in an acute care setting in Alberta. Cummings et al. used a modified experiential case study approach to interview various stakeholders

(n=17) including administrators (n=2), a nurse manager (n=1), ACNPs (n=3), physicians (n=2), a clinical nurse specialist (n=1), clinical support staff (n=2), and RNs (n=6). Collectively, the group identified that the role of the NP lacked clarity, there had been poor planning for role introduction, there was little understanding of how RNs interfaced with the NP, and multiple conflicting demands were placed on the NP, all of which were barriers to implementation of the NP role in the setting. As in van Soeren and Micevski (2001) and Thrasher and Purc-Stevenson's studies the small sample size is a limitation of this study. A strength of the three studies is that including a variety of participants elicits perspectives other than those of the NP.

Another study of NPs in acute care settings was carried out by Jensen and Scherr (2004) who studied the implementation of the NP role in a cardiothoracic surgery intensive care unit in a hospital in Alberta. A researcher developed self-administered questionnaire was used with RNs (n=6), physicians (n=12), administrators (n=3), CNSs (2), patient care coordinator (n=1), transplant coordinator (n=1) and other professional staff (n=9) who worked with the NP (n=1). Barriers identified to implementation included an unclear role definition or standard role description outlining responsibilities, as well as lack of role clarity and regulation that resulted in role tension and limited intra-professional support for the role. The NP identified lack of role autonomy and limited independence in clinical decision making as frustrating. A limitation of this study was its focus on one NP role in a specialty acute care setting; however, the findings are consistent with those of other researchers (Cummings et al., 2003; Thrasher & Purc-Stephenson, 2009; van Soeren & Micevski, 2001).

Long-Term Care Settings. The process of implementing the NP role into long-term care facilities has met with similar barriers to those in the acute care and PHC settings. Stolee, Hillier, Esbaugh, Griffiths, and Borrie (2006) used a self-administered questionnaire and interviews to determine barriers to NP role implementation in three long-term care facilities in Ontario. A variety of staff members (n=109) including nurses (n=32), nurse's aides (n=45), administrators (n=10), physicians (n=3), allied health professionals (n=11), and other staff who did not provide their discipline (n=8) completed the survey. The NP employed in the facilities participated in one 70-minute interview. Collectively, participants identified inadequate administrative support, lack of understanding of the role, lack of perceived need for the role, and little contact with the staff as barriers to the role's implementation. A limitation of this study is that only one NP was involved. The NP was responsible for providing care in three separate long-term care facilities. Lack of exposure to the NP over time may have influenced the views of staff who responded to the questionnaire.

Findings from this body of literature reveal barriers to NP role implementation in PHC, acute care, and long-term care settings, and regardless of setting, barriers to implementing the NP role occur at systems, organizational, and practice setting levels. At the systems level lack of legislation and regulation contributes to restricted role domains (Goss Gilroy, 2001; DiCenso et al., 2003; Jensen & Scherr, 2004). At the organizational level unclear role descriptions, conflicting expectations among team members, inadequate administrative support for the role, workload and remuneration issues, the culture of the organization, short and long-term planning for the role, and lack of NP role autonomy contribute negatively to NP role implementation (Cummings et al.,

2003; DiCenso et al., 2003; Goss Gilroy, 2001; Jensen & Scherr, 2004; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2009; van Soeren & Micevski, 2001). Barriers identified in various practice settings include physician resistance, a minimal understanding of how the NP role interfaces with other members of the health team, NP isolation, and limited direct contact of the NP with other staff (Cummings et al., 2003; Goss Gilroy, 2001; DiCenso et al., 2003; Jensen & Scherr, 2004; Stolee et al., 2006; van Soeren & Micevski, 2001).

Facilitators to NP Role Implementation. While the barriers to NP role implementation may appear overwhelming, many of these same factors are identified as facilitators to role implementation. Goss Gilroy (2001) determined, through surveys and interviews, that administrative support, having more than one NP in a practice location, administrative and physician champions, support services, and leadership among NP groups facilitated NP role implementation and integration of PHC NPs. Van Soeren and Micevski (2001) also identified administrative and physician support, acceptance by team members (which occurred over time), and a clear rationale for implementing the role facilitated implementation. Cummings et al. (2003) determined that administrative champions, clear expectations for and definition of the role, along with expected outcomes and a model to guide the implementation process facilitated NP role implementation in the acute care setting.

PHC NPs in Ontario also identified facilitators to NP role implementation (DiCenso et al., 2003). These facilitators included a clear definition of the role at the practice level, NP satisfaction with the role and scope of practice, the relationship between NPs and physicians, previous experience of physicians working with NPs, team

dynamics and collaboration. NPs identified working in teams, patient interactions, autonomy, and the ability to work to full scope of practice as positive aspects of their role. Physicians who had experience working with NPs indicated that the NP's expertise and the structure of the working relationship between the NP and the physician were facilitators to NP role integration (DiCenso et al., 2003). In the long-term care setting, Stolee et al. (2006) determined that willingness of the staff to work with the NP, collaborative relationships between the NP and staff and the NP and physician, administrative support, and opportunities for direct contact with staff led to greater facilitation of NP role implementation.

In Alberta, Reay, Patterson, Halma, and Steed (2006) interviewed stakeholders (n=20) in one clinical site where an NP role had been implemented. They found that successful implementation of the NP role occurred when stakeholders took time to develop an understanding of the NP role, appropriate administrative support was present, all staff were involved in the implementation process, and trust developed between the staff and the NP. Reay, Golden-Biddle, and Germann (2003) conducted individual interviews with NPs (n=25), 18 in acute care and 7 in the community, and managers (n=7), 4 in acute care and 3 in the community, involved in NP role implementation in Alberta. They found that managers played a pivotal role in the implementation process by staying focused on the overall objectives for role implementation, and by remaining objective and supportive of all staff as they experienced the stresses and strains of change. They found that managers who encouraged the team to sort out new role responsibilities and worked with the team to develop goals that focused on all aspects of the team, not just the NP role, facilitated implementation of the NP role. Similarly, Jensen

and Scherr (2004) identified NP independent decision making and role autonomy as facilitators to implementation.

In Table 2, I summarize the barriers and facilitators to NP role implementation identified in the literature.

Table 2. Barriers and Facilitators Influencing NP Role Implementation

Author	Participants	Study Design & Data Collection Method	Setting	Barriers Influencing Implementation	Facilitators Influencing Implementation
Cummings et al. (2003)	2 Administrators 1 Nurse manager 3 ACNPs* 2 Physicians 1 Clinical nurse specialist 2 Clinical supervisors 6 Registered nurses	Modified experiential case study Interviews	Acute care Alberta	Lack of role clarity Resistance from nursing staff No clear vision for the role Lack of a model to guide role implementation Differing role expectations	Support from senior managers and physicians
DiCenso et al. (2003)	253 NPs 718 Physicians 260 Patients	Mixed methods: Self-administered surveys Interviews	Primary health care Ontario	Health care financing Restrictive legislation Funding limitations Resistance from other health care providers Physician personality and philosophy	Physician personality and philosophy NP's prior work experience Working relationships with team members
Goss Gilroy (2001)	22 NPs 11 Physicians 254 Other health professionals	Quantitative Self-administered questionnaire	Primary health care Newfoundland/ Labrador	Lack physician and administrative support and acceptance Restrictive legislation and regulatory framework NP isolation Lack of preparation for role introduction or long-term human resources plan	NP's prior experience NP's leadership in educating team about the role Physician and administrative champions More than 1 NP in setting

Author	Participants	Study Design & Data Collection Method	Setting	Barriers Influencing Implementation	Facilitators Influencing Implementation
Gould et al. (2007)	7 NPs	Descriptive Semi-structured interviews	Primary health care New Brunswick	Hierarchical structure in the setting Fee-for-service physician remuneration	
Jensen & Scherr (2004)	1 NP 6 Registered nurses 12 Physicians 3 Administrators 10 Other professional staff	Quantitative Self-administered questionnaires	Acute care Alberta	Lack of other's appreciation of role domains Lack of standard job description Limited intra-professional support	NP independence and role autonomy
Reay et al. (2003)	7 Managers 25 NPs	Descriptive Interviews	Acute care and Primary health care Alberta		Administrative support for the role and team
Reay et al. (2006)	4 Physicians 4 Clinic staff 9 Regional health authority staff 3 Community members	Case study, Grounded theory Interviews	Physician clinic Alberta		Management support of team and champions to guide the process Strong team relationships
Stolee et al. (2006)	10 Administrators 3 Physicians 1 NP 32 Registered nurses 45 Nurses' aides 11 Allied health professionals	Evaluation study Self-administered questionnaire	Long term care Ontario	Lack of direct contact with staff and administrative support Lack of staff understanding of the role No perceived need for the role	Willingness of staff to work with NP NP-physician-staff collaboration Opportunity for direct contact with staff Administrative support

Author	Participants	Study Design & Data Collection Method	Setting	Barriers Influencing Implementation	Facilitators Influencing Implementation
Thrasher & Purc-Stephenson (2007)	6 NPs 6 Physicians 6 Registered nurses 6 Managers	Grounded theory Semi-structured interviews	Emergency Department Ontario	Fee-for-service physician remuneration Inadequate definition of the role	Previous experience working with NP Advanced discussion of the role with staff
van Soeren & Micevski (2001)	14 ACNPs* 12 Physicians 9 Administrators 34 Registered nurses	Descriptive Self-administered questionnaire	Acute care Ontario	Lack of NP mentorship and knowledge of the role Perceived lack of administrative and physician support	NP's level of preparation

* Acute Care Nurse Practitioner

** Primary health care

Sangster-Gormley, E., Martin-Misener, R., Downe-Wamboldt, B., & DiCenso, A. (2011). Factors affecting nurse practitioner role implementation in Canadian practice settings: an integrative review. *Journal of Advanced Nursing*, DOI: 10.1111/j.1365-2648.2010.05571.x. Reprinted with permission.

Physician Supports and Barriers. In numerous studies the pivotal role physicians play in NP role implementation has been identified (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Stolee et al., 2006; van Soeren & Micevski, 2001). Thus, a closer examination of the physician's perspective is warranted.

DiCenso et al. (2003) asked physicians who were not in practice with an NP to complete a self-administered questionnaire (n=492) to determine their perceptions of practicing with NPs. Forty-seven percent (47%) of this group of physicians could not see any benefit of practicing with an NP. These same physicians listed lack of space and lack of support from patients and other providers as barriers to practicing with an NP. In addition, issues of liability, NP scope of practice, lack of administrative support and remuneration contributed to their unwillingness to consider practice with an NP. In the same study (DiCenso et al., 2003), 80% of physicians who had experience working with NPs indicated that NPs enabled their practice to see more patients. In this same group of physicians, 85% agreed that working with an NP allowed them to focus their time on more acute and complex patient problems, and that the focus of NPs on health promotion, wellness, patient education, and linking patients to community resources was a benefit. Physicians were also satisfied with the quality of care provided by NPs (DiCenso et al., 2003).

Using a focus group of physicians and residents (n=11) in Manitoba, Katz, & MacDonald (2002) identified poor understanding of the NP role, territorial issues, concerns with liability, and concerns about NP education as contributors to physician resistance to the NP role. On the other hand, Aquilino, Damiano, Willard, Momany, and Levy (1999) surveyed 259 physicians in the U.S. and found that 42% had previously

worked with NPs. Physicians who had experience working with NPs were more supportive of the role. This group of physicians indicated that hiring an NP would attract more patients to their practice and allow physicians more time for other activities. These studies suggest that having previous experience working with NPs reduces physician resistance to the role.

NP Dissatisfaction with the Role. Systemic, organizational, and individual barriers to NP role implementation can contribute to NP dissatisfaction with their role. Dissatisfaction can lead to role stress and strain, and turnover in NP positions (Rubin, 1988). Irvine et al. (2000) interviewed 57 NPs in acute care settings and found that unclear role descriptions, conflicting demands and expectations, inadequate autonomy, and increased emphasis on the medically oriented role functions contributed to role dissatisfaction. In this study, conflict in role demands occurred when members of nursing administration expected the NP to contribute to staff development while medical staff expected NPs to provide daily medical management for patients (Irvine et al., 2000).

Similarly, Sidani, Irvine, and DiCenso (2000) found dissatisfaction among NPs in PHC settings in Ontario. Sidani et al. surveyed NPs (n=123) in PHC settings using a self-administered questionnaire. Findings from the survey indicated that NPs were dissatisfied with their remuneration, workload, lack of public awareness of their role, and isolation from colleagues. DiCenso and colleagues (2003) found that NPs were least satisfied with how NPs and physicians co-ordinated and collaborated when making decisions related to patient care. Gould et al.'s (2007) interviews with NPs in New Brunswick revealed similar findings related to conflicting role demands and expectations. These studies

identify the need to consider the process used to implement the NP role and how barriers and facilitators affect NP role satisfaction.

What is evident from this entire body of research is that the addition of the NP role into practice settings results in reallocation of job responsibilities and altered working relationships, which can be disruptive for those working in the setting (Reay et al., 2003; Reay et al., 2006; Wensing, Wollersheim, & Grol, 2006). As well, successful NP role implementation is a process that is influenced by a complex web of social, economic, and political contexts (Palumbo & Oliverio, 1989). The multiplicity of barriers and facilitators identified through research indicates the challenges of NP role implementation. Clearly there are facilitators that become barriers if not addressed appropriately. Conversely, barriers may also be changed to facilitators. Hence, successful implementation may be determined by how well the overarching context of policy, organizational, and practice setting factors work synergistically. The factors identified exert influence on role implementation and long-term sustainability of the NP role (Mark, Salyer, & Wan, 2003; Mass, Delaney, & Huber, 1999; McLeroy, Bibeau, Steckler, & Glaz, 1988; Moss, 2002). This research indicates that involvement of the entire team in the implementation process, clearly defining the role and expected outcomes, and a model to guide the process can support implementation.

Implementation Frameworks

Several implementation frameworks have been used to guide the development, implementation and evaluation of the NP role in Canada. Evaluation of NP role implementation can be traced back to the 1970s when the role was initially implemented in Ontario. Spitzer (1978) applied a framework used to evaluate the introduction of new

drugs or procedures to the introduction of the NP role. This early evaluation framework incorporated rigor and evidence into establishing a need for the new NP role and determining safety, efficiency, effectiveness, and quality of care delivered by the NP, and patient and provider satisfaction with care. Spitzer's evaluation framework (1978) provided a one-dimensional view of the skills and abilities of NPs in the process of providing care and did not consider complex structural issues that are now known to affect the NP's ability to provide care (Donabedian, 1982; Sidani & Irvine, 1999). In spite of these limitations, Spitzer (1978) established an evidence-based approach to NP role development, implementation and evaluation.

Mitchell-DiCenso et al. (1996) expanded Spitzer's evaluation framework to develop, implement, and evaluate a neonatal advanced practice nursing role. While Spitzer's model was used in two physician offices, Mitchell-DiCenso et al. applied it in a complex hospital system. The expanded framework involved other care providers in determining the need for and definition of the role. Indicators of successful implementation included patient and other providers' satisfaction with the new role, as well as safety, efficiency, and quality of care (Mitchell-DiCenso et al, 1996).

The expanded evaluation framework provided a systematic approach that considered structural variables (staff, policies, the physical environment, patients and educational needs), the processes of care (competencies of research, clinical, education and administration) provided by NPs, and patient outcomes. In this way, the expanded framework recognized the complexity of factors influencing NP role implementation and the potential impact of role implementation on evaluation of outcomes of care.

The approach used by Mitchell-DiCenso et al. (1996) to evaluate NP role implementation also had limitations. NP care was compared to pediatric resident care, the need for the role was driven by inadequate numbers of pediatric residents in neonatal intensive care units, and implementation of the new role was regarded as a replacement for pediatric residents in the unit. The development and definition of the role was appropriately unit specific and the evaluation method was a comparison of NP to pediatric resident care. The strength of the evaluation approach used by Mitchell-DiCenso et al. (1996) is the organized evidence-based process used to determine need prior to implementation and evaluation of the role.

Dunn and Nicklin (1995) surveyed Chief Nursing Officers (n=22) of large teaching hospitals in Canada to determine the status of advanced nursing roles in tertiary care teaching hospitals. Based on the results of their survey, Dunn and Nicklin developed a framework for implementing advanced practice nursing roles in hospitals. Similar to that of Mitchell-DiCenso et al. (1996), their framework recommended determining a need for the new role within the context of where care is provided, establishing an advanced practice nursing model, defining the role and scope of practice, setting standards, establishing educational programs, and evaluating and measuring outcomes. Based on their study, Dunn and Nicklin (1995) developed an organized, systematic framework to evaluate NP role implementation. However, it too has limitations. Roles defined within this framework would be organization and unit specific; thus a role developed in one hospital may not be appropriate in a different hospital. Dimensions of the role identified by Dunn and Nicklin focus on clinical aspects of the NP role, and regulatory or

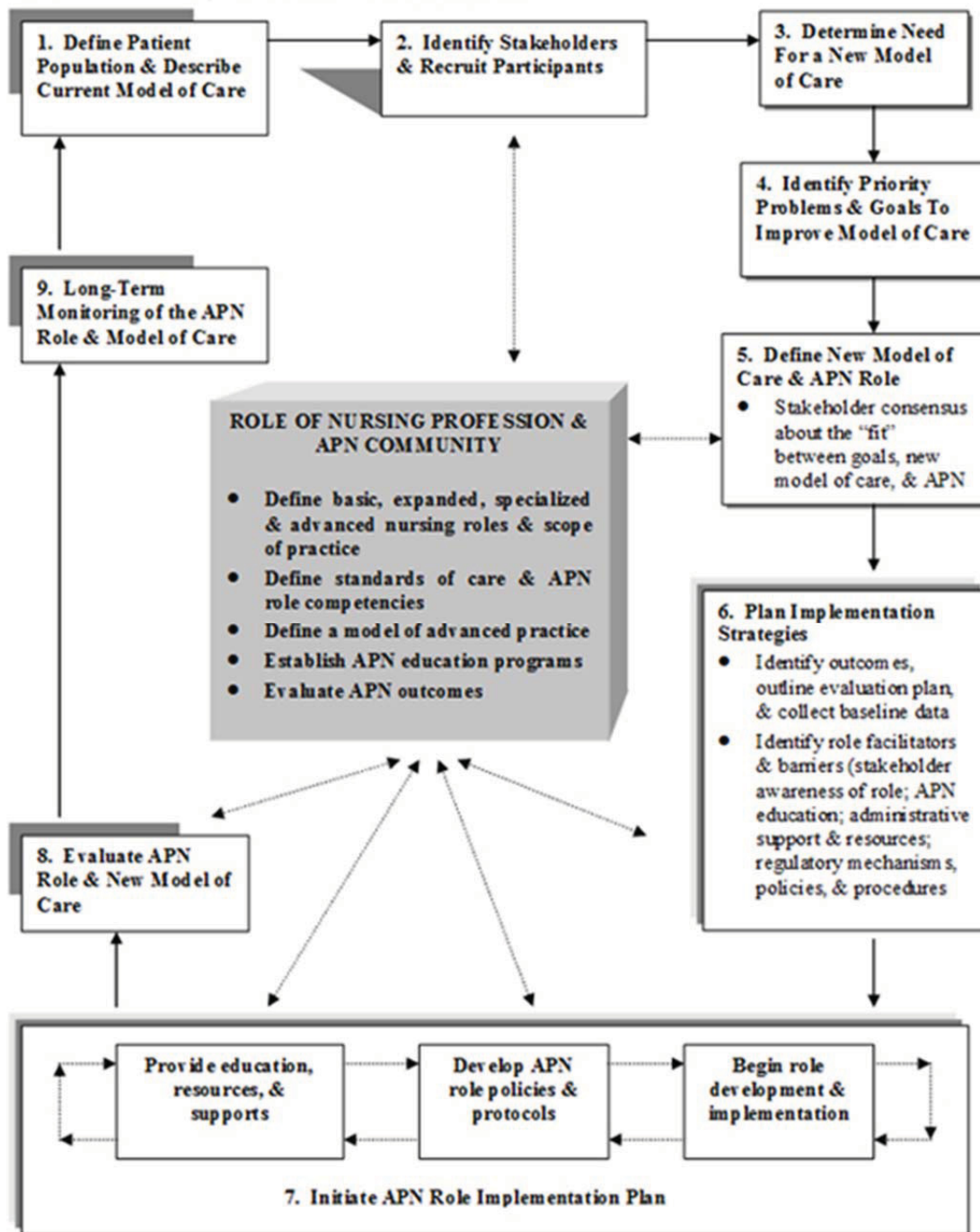
legislative frameworks were not in existence at the time to legitimize the role in society (Doucette & Sangster-Gormley, 2003).

Strengths of the three frameworks discussed above are the organized and structured approach they provide for implementing NP roles and the use of evidence to inform the process. Bryant-Lukosius and DiCenso (2004) built upon Spitzer (1978), Mitchell-DiCenso et al. (1996), and Dunn and Nicklin's (1995) frameworks to design a comprehensive framework for implementing and evaluating the NP role. The Participatory, Evidence-Based, Patient-Focused Process for Advanced Practice Nursing Role Development, Implementation, and Evaluation (PEPPA) framework is a systematic, evidence-based approach to guide NP role implementation and evaluation (Bryant-Lukosius & DiCenso, 2004). The PEPPA framework gives direction to the complex process of NP role implementation and role evaluation. By using the PEPPA framework, participants focus attention on the multiplicity of details involved in the implementation process, including involvement of multiple stakeholder groups.

The PEPPA framework is grounded in the principles of participatory action research that involves individuals in the implementation process (Bryant-Lukosius & DiCenso, 2004). The theory underlying the PEPPA framework is that the process of NP role implementation can be successfully achieved through a patient-centred, participatory, structured approach. The framework demonstrates a structured, interrelated process that moves from initial discussion of how an NP role is being considered, to implementation and evaluation of the role (Bryant-Lukosius & DiCenso, 2004). The PEPPA framework, represented in Figure 2, is organized as a series of steps. Although it

appears linear, in reality it is not mandatory to begin with step one and proceed through the various steps.

Figure 2. The PEPPA Framework: A Participatory, Evidence-Based, Patient-Focused Process For Advanced Practice Nursing (APN) Role Development, Implementation, and Evaluation



Bryant-Lukosius, D., & DiCenso, A. (2004). A framework for the introduction and evaluation of advanced practice nursing roles. *Journal of Advanced Nursing*, 48(5), 530-540. Reprinted with permission.

The focus of Steps One through Six is on role structure and the need for decision making and involvement of key stakeholders. During this time in the implementation process, stakeholders identify the patient population the NP would be expected to care for and describe the current model of care. They draw upon evidence to determine the need to change from the current way care is delivered, to identify goals for the change, and to define whether or not the NP role is a good fit for the setting. The process is iterative as stakeholders discuss and analyze evidence and determine needs for the role and reach consensus on the structure and purpose of the role before the NP is hired. In Step Seven, strategies to implement the role are chosen and plans are made to introduce the role into the setting. Finally, in Steps Eight and Nine, mechanisms to evaluate the role and monitor its implementation over time are created (Bryant-Lukosius & DiCenso, 2004; Charbonneau-Smith, McKinlay, & Vohra, 2010).

Even though the PEPPA framework provides rationale for organizational enablers, such as role descriptions, policies, and procedures that support the role, it does not explain how these enablers are taken up in practice settings (Bryant-Lukosius & DiCenso, 2004). Furthermore, while the involvement of multiple stakeholders is key to the PEPPA framework and contributes to successful implementation, a limitation is that conflicting demands on members of the health care team may influence their ability to participate fully in the planning process.

The PEPPA framework has been used to evaluate the introduction and integration of NP roles in Canada (Bryant-Lukosius & DiCenso, 2004), including Nova Scotia (Martin-Misener et al., 2010; Martin-Misener, McNab, Sketris, & Edwards, 2004), and Ontario (Bryant-Lukosius et al., 2007) and to guide the implementation process in

Quebec (McNamara et al., 2009) and Ontario (McAiney et al., 2008). It has also been adapted to develop an advanced practice role for physiotherapists (Robarts, Kennedy, MacLeod, Findlay, & Golish, 2008).

Implementation toolkits have also been developed on the basis of the PEPPA framework to support successful NP role definition, implementation and evaluation. These include the implementation toolkit developed for the Canadian Nurse Practitioner Initiative (2006), the Winnipeg Regional Health Authority (2005), and Cancer Care Ontario (2009). Although two of these toolkits existed at the time the health authority implemented the NP role, they were not used by the health authority's steering committee to guide the implementation process.

Summary

In this review of the literature, I documented the history of the NP role in Canada and BC, identified outcomes of care provided by NPs, and identified barriers and facilitators to implementation of the NP role into health care systems; however, no implementation studies have been completed within BC's regulatory and policy context. Common among the findings of the studies in this review is that factors at the systems, organizational, and practice setting levels contribute to successful NP role implementation or create barriers to implementation. Others identified managers, other staff, and physicians as key stakeholders who influence the implementation process.

To extend knowledge of NP role implementation in Canada, more studies are needed in a variety of jurisdictions including BC. As well, more studies are needed that include the perceptions of various stakeholders such as managers, other staff, and physicians who are directly or indirectly affected by the implementation process.

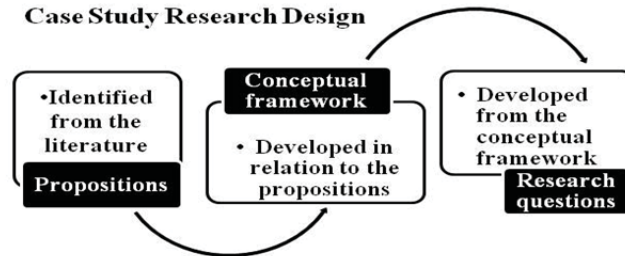
Moreover, there is a need to more deeply explore factors that have influenced the process of implementation in PHC settings. In the next chapter I discuss the propositions that emerged from the literature review, describe the conceptual framework I developed, and research questions I used to guide this study.

CHAPTER 3 PROPOSITIONS, CONCEPTUAL FRAMEWORK, AND RESEARCH QUESTIONS

In this chapter, I present the propositions that emerged from the review of the literature, the conceptual framework, and research questions that guided this study. An explanatory single case study with embedded units of analysis (Yin, 2009) was used to answer the research questions and is discussed more fully in Chapter 4. In order to ensure the study's credibility, I followed the approach to case study design suggested by Yin (2009) and Miles and Huberman (1994).

An explanatory case study uses propositions identified from the literature to inform data sources, methods of data collection, and data analysis (Yin, 2009). The conceptual framework developed for this study and presented later in this chapter, helped me to identify variables that were important and to determine relationships, if any, among the variables (Miles & Huberman, 1994). A potential drawback of using a conceptual framework to guide the study was the possibility that it would blind me to other variables arising from the data. I was aware of this potential and to guard against it, I used the research questions to guide my exploration of the data and considered other explanations (Yin, 2009). The conceptual framework evolved during the study and assisted me in summarizing the key findings of the study as they related to the propositions. The research questions were developed from the conceptual framework. Figure 3 demonstrates the connectedness between the propositions, conceptual framework and the research questions.

Figure 3. Case Study Research Design



Propositions

Propositions arise from the review of the literature and are similar to hypotheses used in quantitative research. Unlike hypotheses, the intent in case study research is not to decide whether the statement should be accepted as true or rejected as false (Loiselle, Profetto-McGrath, Polit, & Beck, 2007), but instead the propositions are used as a way of identifying relevant key concepts and orienting data collection and analysis (Bergen & While, 2000; Miles & Huberman, 1994; Yin, 2009). Propositions for this study were:

1. Clearly identified intentions for the NP role by managers, physicians, other staff and NPs influence the process of NP role implementation in practice settings (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Jenson & Scherr, 2004; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001).
2. Greater involvement of key stakeholders such as managers, physicians, other staff, and NPs influences the success of the process of NP role implementation in

practice settings (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001).

3. High levels of acceptance of the NP role by managers, physicians, and other staff will positively influence the process of NP role implementation in practice settings (DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Jensen & Scherr, 2004; Reay et al., 2006; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001).
4. Involvement of managers, physicians and other staff in the process of NP role implementation, their acceptance of the role, and clearly identified intentions for the NP role in practice settings influence the ability of the NP to enact the role domains of clinical practice, research, collaboration, change agent, and leadership (DiCenso et al., 2003; RNABC, 2003; van Soeren & Micevski, 2001).

Conceptual Framework

Through a review of the literature, I identified several factors at the systems, organizational, and practice setting levels that influence the complex process of NP role implementation. These were summarized in Figure 1 (Chapter 1). At the systems level, restrictive regulatory and legislative frameworks have limited NPs' scope of practice. NPs in two studies reported an inability to provide comprehensive patient care because of restrictions to their authority to prescribe medications and order diagnostic tests (Goss Gilroy, 2001; DiCenso et al., 2003). These issues served as impediments to NPs fully enacting their role.

NP practice occurs in acute, long-term, and PHC settings (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Jensen & Scherr, 2004; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001). It is in these various settings that the process of implementation becomes actualized and NPs begin to enact their competencies and practice to full scope. Practice settings are where NPs and others begin to gain a clearer understanding of the functioning of the NP role (DiCenso et al., 2003; Goss Gilroy, 2001; Stolee et al., 2006; van Soeren & Micevski, 2001). Health authorities in BC have designated the following PHC settings as targeted locations for the implementation of the NP role: those that provide care to clients who are homeless, clients who have mental health and addictions issues, geriatric populations with physical and mental impairments, pediatric populations, and fee-for-service physician offices. It was expected that NPs would increase access to care, improve patient outcomes, and the functioning of multidisciplinary teams in these settings. Because of this, the PHC setting was the focus of this research.

Factors Influencing Implementation. Multiple factors occurring in practice settings that influence the process of NP role implementation were identified in the review of the literature for this study (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Jensen & Scherr, 2004; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001). To further my understanding of factors influencing the process of implementation, I compared the data from the review looking for patterns and themes across data sources (Miles & Huberman, 1994). By removing the qualifiers of barrier or facilitator, I was able

to analyze the multiplicity of factors influencing implementation in practice settings. (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001).

Identifying common themes that emerge from the literature allowed me to begin to determine which variables were important and to determine relationships, if any, among the variables (Miles & Huberman, 1994). Yin (2009) describes this process as the first step in developing the case study protocol. Miles and Huberman describe the process of identifying common themes as sorting data into intellectual bins so that orienting ideas may provide clarity and focus for beginning researchers, such as myself. Naming the bins (themes) and looking for relationships led to the construction of a conceptual framework to guide the study (Miles and Huberman, 1994).

As a result of my analysis of studies identifying factors influencing role implementation across practice settings, three concepts related to the process emerged. These concepts are involvement, acceptance, and intention. In Table 3, I relate the concepts of involvement, acceptance, and intention to factors that influence the process of NP role implementation in practice settings. Following this, I present a definition of each concept synthesized from the literature review.

Table 3. Factors Influencing Nurse Practitioner Role Implementation in Practice Settings and Emerging Concepts from a Review of the Literature

Author	Factors Identified in Practice Settings Influencing Implementation	Concept
<p>Cummings et al. (2003) Acute care Alberta</p>	<p>Understanding and knowledge of role by team</p> <p>Organization plans for implementation</p> <ul style="list-style-type: none"> • Involvement of team in process <p>Role expectations/work demands</p> <ul style="list-style-type: none"> • Delineation of interface between RN-NP roles 	<p>Acceptance</p> <p>Involvement</p> <p>Intention</p>
<p>DiCenso et al. (2003) PHC setting Ontario</p>	<p>Shared vision of NP role</p> <ul style="list-style-type: none"> • Common values, understanding of mission and desired outcomes aligned with NP role • Identified needs of community • Involvement of NP in development of position description • Allocation of resources <p>Understanding of role</p> <ul style="list-style-type: none"> • Community and physician acceptance of role • Team understanding of each other's roles • Collaborative culture • Role autonomy • NP able to enact role domains/competencies <p>Defining NP role</p> <ul style="list-style-type: none"> • Identification of patient needs NP expected to meet • Team understanding and readiness for role • Summary, circulation and discussion of NP role in writing • Development of guidelines & role descriptions • Building in time for NP to establish rapport with team 	<p>Involvement</p> <p>Acceptance</p> <p>Intention</p>

Author	Factors Identified in Practice Settings Influencing Implementation	Concept
Goss Gilroy (2001) PHC setting Newfoundland/Labrador	Physician, team and community support for the role NP's prior experience with team Planning for role introduction <ul style="list-style-type: none"> • Defined scope of practice • Defined role expectations and goals for implementation • Allocation of resources Management and physician involvement, support, and feedback <ul style="list-style-type: none"> • Long-range human resource planning • Inclusion of team in decisions related to role • Introduction of NP to team and community • Shared understanding of role fit with team NP's involvement in educating team about the role	Acceptance Intention Involvement Involvement
Gould et al. (2007) PHC setting New Brunswick	Physician understanding of the role	Acceptance
Jensen & Scherr (2004) Acute care Alberta	Identify role demands and definition Acceptance and support Independence and role autonomy	Intention Acceptance
Reay et al. (2003) Acute care and community Alberta	Manager's role in process <ul style="list-style-type: none"> • Attention given to varied perspectives of team • Involvement of team in process • Managing altered working relationships Identified goals for role implementation	Involvement Intention

Involvement. Previous studies have indicated that involvement of managers, physicians, other health care providers, and NPs (Cummings et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006) and mentorship for new NPs (van Soeren & Micevski, 2001) influence the process of NP role implementation. Through their involvement in the implementation of NP roles in practice settings, managers influence the process of implementation by attending to the varied team perspectives, assisting with conflicts that may arise over altered working relationships, and guiding the team through the process of introducing and implementing a new role into the team (Reay et al., 2003; Reay et al., 2006). Managers also demonstrate involvement by introducing the NP to other team members, by assisting the team to understand how the NP role fits in the PHC setting, by involving team members in the process, as well as allowing all team members to voice concern about how the NP role will impact various established roles in the practice setting (Cummings et al., 2003; Goss Gilroy, 2001; Stolee et al., 2006; van Soeren & Micevski, 2001). Managers are responsible for allocating resources such as space and equipment, and implementing organizational policies related to role implementation (DiCenso et al., 2003). Involvement of team members in the implementation process allows a common understanding and shared vision for the role to emerge. A shared understanding of the role may then foster alignment of the NP role to patient needs (DiCenso et al., 2003).

Acceptance. Gaining physician, other health care provider, and administrative support for the NP role (DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Stolee et al., 2006) is vital to ensure success of the process of role implementation. Without support from these team members, the process of role implementation is

difficult. The degree of acceptance and support for the role by health care team members, their willingness to collaborate with the NP (Stolee et al., 2006), their knowledge and understanding of the NP role (Cummings et al., 2003; Reay et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001) all have direct influence on the degree of acceptance for the NP role. In turn, the ability of the NP to enact all dimensions of her or his role is influenced by the degree of the team's acceptance (DiCenso et al., 2003; Jensen & Scherr, 2004).

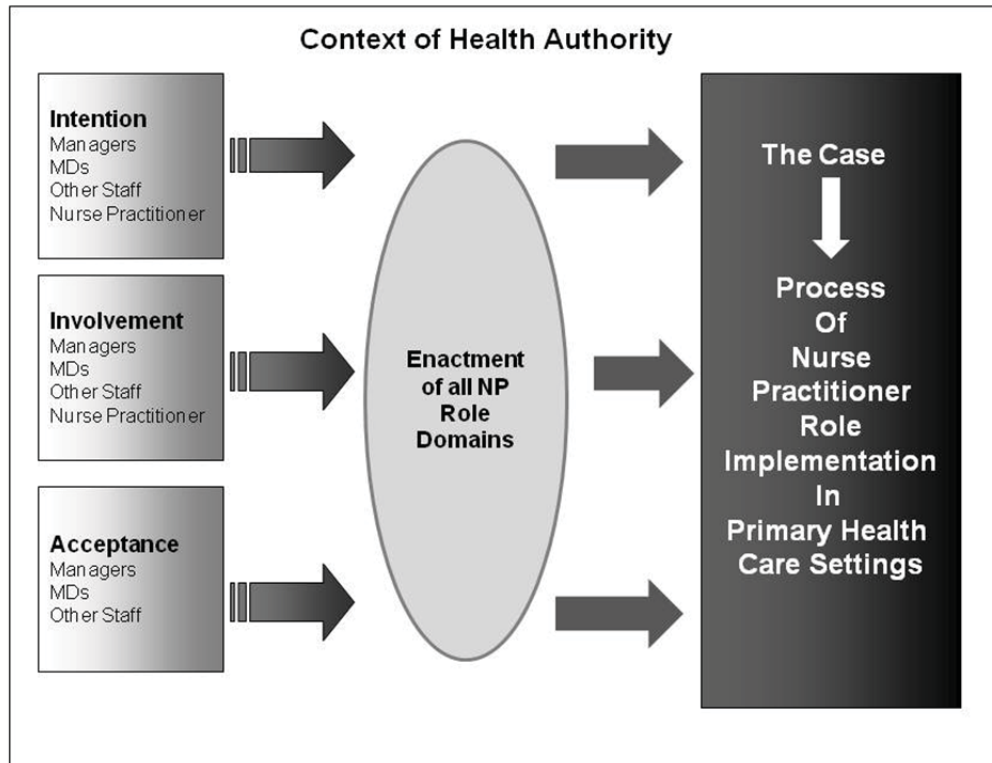
Intention. The concept of intention relates to how the NP role is defined prior to implementation and the goals the role is intended to achieve. Determining the intention of the NP role prior to implementation provides clarity about how the NP will interface with other providers including physicians (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Jensen & Scherr, 2004; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001). Team collaboration in defining the NP role allows members to identify patient needs collectively, and facilitates the team's understanding and readiness for the role (DiCenso et al., 2003; Reay et al., 2003). Clearly identified intentions for the NP role also assist in the development of position descriptions and guidelines for how the person in the role is intended to function within the team (DiCenso et al., 2003; Goss Gilroy, 2001).

The involvement of managers, physicians, and other health professionals in the implementation process along with their acceptance of the NP role, and intentions for it, are identified as critical factors in the process of implementation. The effectiveness of the NP role is influenced by how the implementation process is carried out in PHC settings.

Conceptual Framework. In Figure 4, I present an early version of the conceptual

framework that I developed. In this framework I show how the concepts of involvement, acceptance, and intention are linked to NP role enactment and the process of implementation. Managers, physicians, other staff, and NPs are identified as key stakeholders within each concept. The development of the study's propositions and this model were influenced by the PEPPA framework, specifically Steps 6 and 7 of the framework, which relate to planning and initiating implementation (Bryant-Lukosius, 2003). Step 6 identifies organizational structures that need to be in place to enable implementation of the role in practice settings. Step 7 begins with the hiring of the NP and stakeholders are encouraged to monitor implementation. While this early version of my conceptual framework guided the development of my research questions, I also expected that the conceptual framework would continue to evolve as data were collected and analyzed.

Figure 4. Conceptual Framework Version One



In this framework, I indicate a link between the concepts of involvement, acceptance, and intention to the case, which is the process of NP role implementation in PHC settings. NP role enactment is central in this framework demonstrating that the ability of the NP to enact the role is influenced by the concepts. While the arrows indicate a relationship of the concepts to NP role enactment and the concepts and NP role enactment to the case, it was unclear at this stage of framework development if these concepts actually influenced the implementation process, the degree of influence they had in the process, and whether there were relationships among the concepts of involvement, acceptance and intention.

Research Questions

The research questions that guided this study were:

1. How do intentions for the NP role identified in PHC settings influence the process of NP role implementation? (Proposition #1)
2. How are managers, physicians, other staff, and NPs involved in the process of NP role implementation in PHC settings within the health authority? (Proposition #2)
3. How does acceptance by managers, physicians, and other staff of the NP role in PHC settings within the health authority influence the process of NP role implementation? (Proposition #3)
4. How are NPs enacting the role domains of clinical practice, collaboration, research, leadership, and change agent in PHC settings (RNABC, 2003)? (Proposition #4)

Ethics Approval

The research project received approval from Dalhousie University's Research Ethics Board in December 2008. Ethics approval from the health authority occurred in January 2009 and I was given permission to contact three PHC settings. I describe my specific recruitment strategy in more detail in Chapter 4. Recruitment of participants and interviewing occurred over a three month period between March and May 2009. A copy of the Dalhousie University's ethics approval letter is included (Appendix A).

Positionality

As a researcher, it is necessary for me to locate myself in this study. During most of my nursing career, which spans more than 30 years, I have practiced as an NP. I have been a university educator of NPs for nine years and involved in NP education policy development through the Canadian Association of Schools of Nursing. I have witnessed the implementation of the NP role in Florida, United States and New Brunswick, Canada

and now in BC. I believe passionately in the importance of the NP role and believe that it can contribute significantly to the health care system by increasing access to care and providing cost effective quality care. I was aware that my passion for the role could bias my ability to analyze and interpret the perspectives of participants in my study; therefore I took the following steps. I discussed my analysis with a PhD prepared researcher from BC who is not an NP, and with my thesis committee, only one of whom is an NP; two committee members are registered nurses and the fourth is a family physician. I presented my early data analysis to a group of managers in health authorities across BC who were involved in NP role implementation and also at the annual meeting of the British Columbia Nurse Practitioner Association. In all instances, the findings resonated authentically with the groups. In one situation, a member of the audience asked if she had been involved in my study because my findings were very similar to how her role had been implemented.

Decision-Maker Involvement

Because I was conducting my research in the health authority, I was invited, by the Chief Nursing Office, to participate in meetings of the NP implementation steering committee in February 2007. I did not begin attending monthly meetings until August 2007 when I relocated from New Brunswick to BC. After moving to BC I began attending meetings as a representative of the university where I am a faculty member. Throughout this study I remained an active member and attended the committee's monthly meetings. My involvement as a researcher with this decision-making committee facilitated my understanding of political and institutional values, beliefs, and ideologies within the health authority (Canadian Health Services Research Foundation, 2002;

Krimgold, 2002; Lomas, 2000). In all the settings included in this study, the decision to create an NP position and hire the NP was made before I became a member of the committee.

As a member of the NP steering committee, I have been involved in efforts to improve the process used in practice settings to create new NP positions. I suggested that the PEPPA framework be used as a guide to develop new NP positions and helped to develop a template used to guide managers and others when developing a proposal for a new NP position. Neither of these changes had been taken up by the steering committee at the time of this study; therefore, they did not influence the study, or the decisions of how to implement the role into the three settings. At the time of data collection and analysis, I did not know any of the participants.

Members of the NP steering committee helped to identify settings that met the study's inclusion criteria, which I describe in Chapter Four. I updated the committee periodically on the progress of the study, but did not share my analysis and findings until after my thesis committee approved the final version of my dissertation. The health authority provided funding to support this research but the steering committee did not have input into the research questions or method.

Summary

In this chapter I presented the propositions that emerged from the literature review, the conceptual framework I developed and the research questions that guided this study. I described how I identified the concepts of involvement, intention, and acceptance by comparing the data from the review looking for patterns and themes across data

sources. I defined each concept and related the concepts to NP role implementation. In the next chapter I discuss the methodology I used to conduct this study.

CHAPTER 4 THE CASE AND METHODOLOGY

In this chapter I present the method used to conduct this study. I also describe the study's design, a single case study with embedded units of analysis (Yin, 2009), context, as well as data collection, management, and analysis. I adhered to the case study approach suggested by Yin (2009) throughout the study.

The Case

Because I was interested in understanding and explaining the process of NP role implementation as it was occurring in practice settings located in one health authority from a range of perspectives, I chose qualitative case study (Yin, 2009). In this study, the process of NP role implementation in a health authority in BC was the case studied. In order to understand the case, I needed to study it within the context in which it was occurring. In BC, health authorities are responsible for implementing the NP role; more specifically, at the time this study was conducted, they were implementing the role into PHC settings.

Case study research is undertaken when there is a desire to gain an in-depth understanding of a process from key informants who were directly involved (Yin, 2009). In this study the process was NP role implementation and the key informants were managers, physicians, NPs, and other staff in PHC settings. As well, case study research provides opportunity to empirically investigate in detail a contemporary phenomenon within its natural context from multiple perspectives (Creswell, 1998; Hancock & Algozzine, 2006; Patton, 2002; Yin, 2009). Case study research allowed me to construct a clear explanation of the process of NP role implementation by triangulating multiple data sources including the perceptions of managers, physicians, other professionals, and

NPs and analysis of key documents (Yin, 2009). I discuss data collection and analysis in more detail later in this chapter.

Bounding the Case. Miles and Huberman (1994) stress the need to identify what the study is and is not. Identifying these limits at the outset of the study allowed me to place parameters on what would and would not be included. Creswell (1998) suggests that a case can be bound by time and place. Although the process of NP role implementation was occurring across the province of BC in all health authorities, this case study was limited to one regional health authority that was conveniently located to me. It was further limited to those PHC settings where the NP had been hired for at least six months so that there would be an understanding of the role by the team. Because each PHC setting was, in some way, linked to the health authority, each was part of the health authority's organizational context, structure and culture. By purposively selecting those settings where the NP had been in the setting for a minimum of six months, I bound the case in time (minimum six months post NP hiring) and place (a PHC setting in one health authority in BC) (Miles & Huberman, 1994).

Definition of Implementation. As mentioned previously in Chapter One, the term implementation may mean different things to different people. In this study, I defined implementation as the process used by the health authority to add an NP to the health care team in PHC settings. Components of the process included identifying the need for the NP role, determining how the role functioned, and accepting the new role into the team. This definition is closely aligned with the evolutionary model of implementation (Palumbo & Oliverio, 1989).

Context of the Case. In BC, health authorities are responsible for inpatient and outpatient care, the operation of facilities and employment of health professionals, technicians, and support staff. The health authority's executive team is responsible to a Board of Directors appointed by the Government of BC. All health authorities develop strategic plans to enact policy initiatives mandated by the MOH. Examples of the health authority's strategic directions include improving the health of First Nations people and rural and remote communities, and developing and implementing comprehensive PHC strategies to prevent or manage illness, as well as end-of-life care. Implementing the NP role was one strategy the health authority included as a way to achieve its strategic directions. Expectations were that NPs would enhance PHC services through improvements in patient outcomes, access to care, and functioning of multidisciplinary care teams.

Setting. One of BC's six health authorities was purposively selected to participate in this research. I contacted the Chief Nursing Office for the health authority to determine interest in participating in the study and willingness to serve as a decision maker partner (Canadian Health Services Research Foundation, 2002; Krimgold, 2002; Lomas, 2000). I discuss my recruitment strategies for other participants later in this chapter. In an effort to maintain confidentiality and anonymity of participants I do not identify the health authority and refer to it only as the health authority.

Allocation of NP Positions. In 2005, the MOH allocated 15 NP full-time equivalents (FTE) to the health authority. Ongoing funding was allotted to each NP FTE, along with one time start-up funds to cover the costs of computers, office and examination room equipment, and a telephone. Shortly after obtaining the funding the

health authority established an NP steering committee. The committee was comprised of representatives from human resources, nursing and medical administration, finance, and managers of PHC settings. The mandate of the committee was to develop position descriptions, requirements for submission of proposals from PHC settings for new NP positions, and strategies for introducing and implementing the new role. Members of the NP steering committee served as an advisory committee for this study. The Chief Nursing Officer was a member of this committee.

Any manager in the health authority could submit a proposal to implement an NP role to the steering committee at any time. The proposal format was designed internally by committee members and provided general guidelines for structure and content. Proposals were expected to include the role and responsibilities of the NP using the health authority's role description as a guide; demonstrate alignment with the health authority's strategic directions for the targeted patient populations of seniors, people with chronic disease, or people with mental illnesses and/or addictions; and describe how the NP would function in the setting. The proposal was also expected to discuss how the NP would increase access to care, improve patient outcomes, and contribute to the functioning of interdisciplinary teams. There was no expectation of a needs assessment, other than a general statement to justify the appropriateness of the setting and the patient population that fit with the NP role description. There was no expectation that stakeholders would be involved in the development of the proposal.

The NP steering committee met monthly to review proposals submitted from practice settings and to decide where to allocate NP positions. The decision to approve proposals was made by consensus agreement among committee members and based on

the alignment of the proposal with the health authority's strategic direction for NP role implementation.

Case Study Design

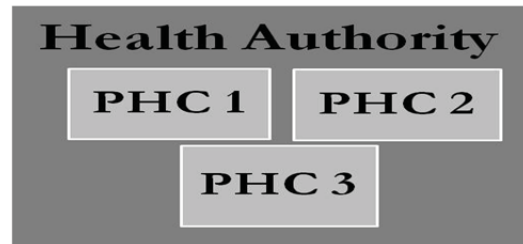
Yin (2009) defines case studies as exploratory, descriptive, or explanatory. Exploratory case studies answer “what” questions and are used to develop hypotheses and test propositions for further inquiry (Yin, 2009). Descriptive case studies are used to describe phenomena within their context, and explanatory case studies are used to answer “how” and “why” questions, as well as to understand cause and effect relationships (Fisher & Ziviani, 2004; Gangeness & Yurkovich, 2006; Hancock & Algozzine, 2006; Yin, 2009). In this study I used an explanatory case study in order to understand and explain the case of how the health authority implemented the NP role in PHC settings.

A case study may be comprised of single or multiple cases and may be viewed either holistically or with embedded units of analysis (Baxter, 2003; Yin, 2009). Holistic case studies focus on a comprehensive understanding of a phenomenon, where understanding the whole case is more important than its parts (Heinz, 2007). The process of NP role implementation was occurring in all health authorities in BC. Studying the process of implementation at the organizational level (e.g., multiple health authorities) would have required the use of multiple holistic cases. I could have also studied the implementation process from the systems, organizational, and PHC setting levels, thus nesting cases at each level to determine how the process of implementation is occurring in BC (Patton, 2002).

I selected one health authority for this study, thus a single case study. However, I selected multiple PHC settings within the health authority that have implemented the NP

role. Consequently, I used a single case study with three embedded units of analysis (PHC settings). Figure 5 represents the case and the units of analysis.

Figure 5. The Case and Embedded Units of Analysis



There are several advantages to this design. First, the use of several PHC settings contributed to the robustness of the study (Yin, 2009). Second, it allowed me to explain more fully the complexity of the process (Baxter, 2003; Baxter & Jack, 2008; General Accounting Office [GAO], 1990; Hewitt-Taylor, 2002). Third, it provided me with enhanced insights to develop a rich, deep explanation and understand the process of implementation of this role in a complex health care environment (Yin, 2009). Finally, a case study with embedded units enabled me to analyze data obtained from within individual PHC settings and to compare and contrast across settings (Ayers, Kavanaugh & Knafl, 2003; Baxter & Jack; Thorne, Kirkham, & MacDonald-Emes, 1997).

A disadvantage of using a single case study with embedded units of analysis is that the focus of the case can become the subunits of analysis (Yin, 2009), in this study the PHC settings, and not the larger case, which is how the NP role was implemented in the health authority. This risk is especially important to attend to in the analysis phase of the study.

Each PHC setting in the health authority implementing the NP role functions independently and autonomously; however, all settings are influenced by the health authority's policies, organizational directives, human resource issues and the overall organizational culture. Contextual issues within PHC settings may influence implementation; nevertheless the overall process and expectation of implementation are based on the health authority's directives. Each embedded PHC setting selected for this study was directly or indirectly connected to the health authority.

A single case study is similar to conducting a single experiment; however, by including embedded units of analysis, I was able to better explain the complexity of implementing this role (Yin, 2009). In each PHC setting, I followed the same research protocol, which means posing the same interview questions to key informants in similar roles in each setting, and reviewing similar documents. In each setting I used the interview questions developed for this study (Appendices B, C, D & E), and reviewed similar documents. In this way, comparing and contrasting findings from all settings contributed to my understanding of how the health authority was implementing the NP role (Yin, 2009). Although I followed the same overall research protocol and used the same interview questions, I did not limit responses from participants. The interview questions served to guide the discussions.

Case Selection. In this study, I sought to understand and explain how a health authority implemented the NP role. Unlike grounded theory where theory emerges from the data, case study is guided by a theory and the phenomenon of study is clearly defined early in the research protocol (Wuest, 2007; Heinz, 2007). The implementation process was the phenomenon of interest in this study; thus to understand and explain the process

of NP role implementation I needed to locate a health authority that had implemented the role. The advantage of case study research is that unlike randomized controlled trials or experimental research, the selection of cases is not blinded or controlled and instead seeks to locate the study in its real life context and acknowledges that the case and its context cannot be separated (Anthony & Jack; 2009; Yin, 2009). Therefore, one health authority was purposively selected to demonstrate the NP role implementation (Loiselle et al., 2007; Patton, 2002).

Embedded Units of Analysis. Previous research demonstrated that involvement and acceptance of managers, physicians, and other staff and the intentions for the role influence the process of NP role implementation (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Jensen & Scherr, 2004; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001). In addition to purposely selecting PHC settings where the NP role had been implemented for at least six months, I also chose settings that would represent maximum variation. By seeking maximum variation in characteristics of PHC settings, such as geographic location, model of care, and populations served, I expected to explain better how the concepts of involvement, acceptance, and intention influenced the health authority's implementation of the role (Sandelowski, 1995; Shadish et al., 1991).

Data Sources

One of the strengths of case study research is the opportunity to collect data from a variety of sources and to converge the data to illuminate the case (Yin, 2009). Yin (2009) lists six sources of data for case study research: 1) interviews, 2) documentation, 3) direct observation, 4) participant observation, 5) archival records, and 6) physical

artifacts. Table 4 lists these sources of data and their strengths and weaknesses.

Table 4 Sources of Data

Source of Data	Strengths	Weaknesses
Interviews	Targeted to case study topic Insightful-provides perceptions of informants	Bias due to poorly constructed questions Response bias Inaccuracies due to poor recall Interviewee gives what interviewer wants to hear
Documentation	Stable- may be reviewed repeatedly Unobtrusive- not created by case study Exact-contains detail of events Broad coverage-extended time span	Retrievability may be low Biased selectivity Reporting bias Access-may be blocked
Direct observation	Reality Contextual	Time consuming Events may proceed differently because of observation Costs-associated with time needed by observer
Participant observation	Same as above Insightful into interpersonal behaviour	Same as above Bias due to investigator's manipulation of events
Archival records	Same as documentation above Precise & quantitative	Same as documentation above Accessibility due to privacy
Physical artifacts	Insightful into cultural features and technical operations	Selectivity Availability

(Adapted from Yin, 2009, p. 102)

The primary source of data for this study was individual interviews with key informants in each PHC setting. I also used relevant key documents as secondary data sources (Miller & Alvarado, 2005). I elaborate on my rationale for selecting these data sources below.

Primary Data Source. Previous research indicated that involvement and acceptance of the NP role by managers, physicians, and other staff working with the NP, and their understanding of the NP role influence the implementation process (Cummings et al., 2006; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001). Consequently, in each PHC setting I interviewed the manager directly responsible for the administrative day-to-day functioning of the setting, at least one physician working with the NP, and at least one of the staff such as an RN or a medical office assistant, and the NP (Miles & Huberman, 1994; Morse, 1991; Richards & Morse, 2007).

Secondary Data Source. In addition to interviews, I purposively selected information-rich and appropriate documents that corroborated data from other sources, or contributed to my understanding of the context of NP role implementation (Miller & Alvarado, 2005; Yin, 2009). Key health authority documents included the proposal for the position that was submitted to the steering committee for approval, the health authority's NP role description, project charters, and the health authority's strategic plan, which I accessed from its website. I was aware of the proposal, the NP role description, and project charters through my involvement with the NP steering committee. Initially I had intended to include minutes of planning meetings that were available in PHC settings; however, no meeting minutes existed. I had access to the minutes of the NP steering committee's meetings; however, the implementation of the role in the PHC settings was not discussed in those meetings.

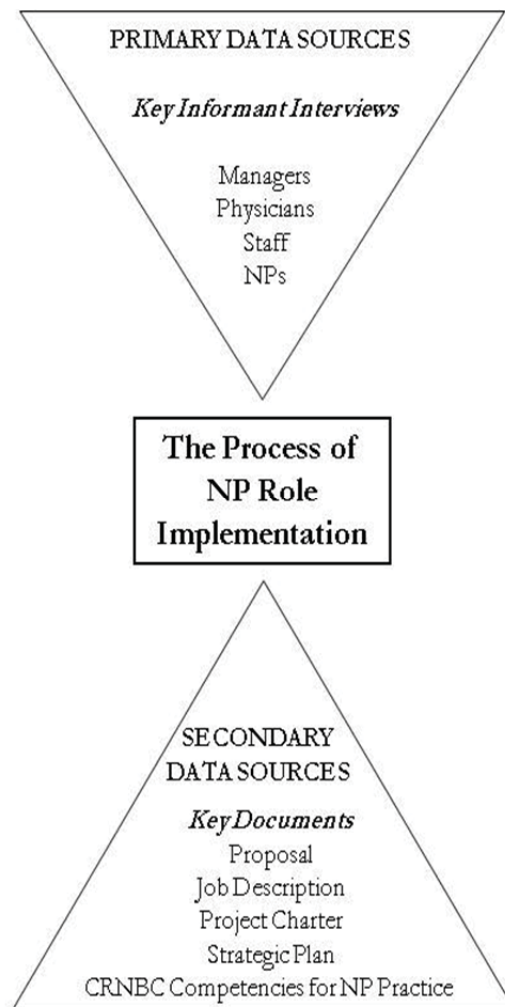
I also obtained documents from municipal websites, which helped me to better understand the geographic settings in which the PHC settings were located. As well, the

CRNBC competencies and standards for NP practice were reviewed. CRNBC competencies reflected role domains that NPs were expected to enact.

The health authority developed various documents that were used to facilitate NP role implementation in PHC settings. These included guidelines for how to submit a proposal for an NP position. Managers of PHC settings were expected to submit a proposal to the Committee for approval of an NP position. The proposal included the purpose of the position and the patient population for whom the NP was intended to provide care. The proposal allowed me to compare the original intent for the position with how the NP was functioning. The role description helped teams in PHC settings and NPs understand the health authority's expectations of role incumbents. Project charters were developed within the health authority to guide the implementation of new programs and services. The charters included background information related to new programs or services, its purpose, structure, and budget.

Triangulation of Data. Using multiple sources of data is one of the strengths of case study (Creswell, 1998). The history of the implementation process, politics, the social structure of the PHC settings, and other contextual issues may be understood using multiple data sources (Yin, 2009). The triangulation of findings from multiple data sources also enhances the strength of understanding and reliability of findings of the case study (Anderson, Crabtree, Steele, & McDaniel, 2005). Figure 6 illustrates triangulation of key informant interviews and review of key documents that supported my understanding and explanation of how the NP role was implemented.

Figure 6. Triangulation of Data



(Adapted from Baxter, 2003, p.42)

Sampling Strategies within Embedded Units

Case study research occurs within the real life context in which a phenomenon exists (Yin, 2009). Miles and Huberman (1994) state that, although there is a need to understand a phenomenon in its context one cannot interview everyone about everything. A sampling strategy is necessary to limit and identify key informants most likely to possess requisite knowledge and understanding of the object of the study.

Units of Analysis. In order to understand NP role implementation I needed to study settings in which the role had been implemented. I also wanted maximum variation among settings so I purposively selected settings located in diverse geographic locations with different models of patient care and patient populations. Each setting had to have implemented the role a minimum of six months before the study began, indicating criterion sampling (Miles & Huberman, 1994).

Key Informants. Participants were purposively selected if they met the inclusion criteria which included their role and length of time in the setting, and their knowledge of the implementation process. I provide more detail about inclusion and exclusion criteria later in this chapter. The selection of managers, physicians, professional staff, and NPs as key informants was in keeping with propositions 1, 2, and 3.

Key Documents. Documents were also purposively selected that would facilitate my understanding of intentions for the role and provided historical context for implementation. Originally, I had planned to review minutes of planning meetings for role implementation in the settings. This type of document did not exist and I had limited available documents in the settings. I discuss the types of documents I reviewed later in this chapter.

Recruitment Strategy. From the inception of this study, the Chief Nursing Officer of the health authority was involved in my preliminary exploration of the locations and models of care in which the NP role had been implemented. Prior to submitting the research proposal to the ethics review board for approval, I presented the study's propositions, research questions, and types of settings for data collection to the NP steering committee for discussion and feedback. At that time, I outlined the key

informants and key documents that I planned to access. Once the study received ethics approval, I again made a presentation to the NP steering committee and discussed data sources. In conjunction with the steering committee and the Chief Nursing Officer, we selected three PHC settings located in various geographical locations with different models of care and patient populations. In this way I was able to ensure maximum variation among settings.

The underlying intent of involving the NP steering committee and a decision-maker partner at the beginning of this study was to enable the research I was conducting to be relevant to the health authority (Canadian Health Services Research Foundation, 2002; Krimgold, 2002; Lomas, 2000). I anticipated that the involvement of the committee would assist in later dissemination and uptake of the study's findings into the health authority (Canadian Health Services Research Foundation, 2002; Krimgold, 2002; Lomas, 2000).

Gaining Access to PHC Settings. The Chief Nursing Officer of the health authority agreed to prepare a letter of introduction and support for the project (Appendix F). She also agreed to prepare a letter to be given to each potential participant supporting this research and stating that participating or not participating in this research would in no way jeopardize their relationship with the health authority (Appendix G).

After meeting with members of the NP steering committee, I personally contacted by telephone the manager responsible for each PHC setting and discussed the purpose of the study, why that particular setting had been chosen, the amount of staff time and resources required, as well as the amount of time I would spend in the setting and any possible disruptions this might cause. I also discussed the types of documents I would

like to review while in the setting. As well, I discussed how the results would be reported and what participants might gain from the study (Creswell, 1998; Yin, 2009). Managers subsequently discussed the study with staff and reported back to me the staff's willingness to participate. Once three settings had been contacted by telephone and electronic messaging and agreement to participate was obtained, I made arrangements to visit the setting and plans to interview participants.

Gaining Access to PHC 1. Originally, I contacted the manager responsible for the NPs in the fee-for-service demonstration project to discuss the possibility of one of the settings participating in the study. She determined the setting most likely to be willing to participate and made the initial telephone contact with the NP. This manager then notified me using electronic messaging that the setting was willing to participate and gave me contact information for the NP.

I made initial contact with the NP in the fee-for-service setting (PHC 1), using electronic messaging and we subsequently talked over the telephone. The NP facilitated the discussion of the study with staff and obtained their consent to talk with me about participating in the study. The NP arranged appointments for me to interview her, the business manager, an RN, and one of the physicians who worked closely with her and who had mentored her as a student.

Gaining Access to PHC 2. My initial contact in PHC 2 was the manager of the setting. This setting was located in close geographic proximity to me, which facilitated my ability to meet with the manager in person. I provided a copy of the letter supporting the study from the Chief Nursing Officer (Appendix F) to the manager during my preliminary meeting. During the initial meeting, we discussed the study and the types of

participants I had selected to interview and the documents that I wanted to review. PHC 2 offered variation from the other settings because of the staff's previous experience with two NPs who had left the setting. I especially wanted to select participants who had been working in the setting during the time the previous NPs were employed.

The manager arranged for me to meet with potential participants to discuss the study and answer their questions. This meeting was attended by a medical office assistant, the staff coordinator, the NP, and a physician who worked with the NP. During the meeting I distributed the CNO's participant letter (Appendix G), answered questions, and arranged for future meetings to conduct the interviews.

Gaining Access to PHC 3. Initially I contacted the program director for PHC 3 through electronic messaging. The program director facilitated my telephone contact with the manager of PHC 3. The manager subsequently discussed the study with potential participants and obtained their consent for me to visit the setting and discuss the study in more detail. The administrative assistant arranged appointments for me to meet with one of the registered nurses who worked with the NP, the director of a non-governmental organization (NGO) closely tied to the PHC setting, and the manager. The NP arranged for me to meet with a community FP with whom she worked on a regular basis.

Sample Inclusion and Exclusion Criteria. Only English speaking participants, who worked directly or indirectly with the NP, and were working in the setting six months or more before the NP was hired were included in the study. In an attempt to provide maximum variation among the data sources (Lincoln & Guba, 1985), participants included NPs, RNs, other professional staff, managers, physicians, and where possible, community members. These participants had been in the setting before, and during the

time the NP was hired. Therefore, they provided their unique perspectives and insights into how intentions for the role were developed, who was involved in the decision to hire the NP, and how acceptance for the role occurred after the NP was hired. The specific number of key informants who made up each case was determined at the setting (Hewitt-Taylor, 2002; Morse, 1991). While the principles of PHC include the involvement of the community (World Health Organization, 1978), according to members of the NP steering committee, community members did not have an active role in deciding where and how the NP role was implemented and therefore, with one exception, I did not include community members in my sample (B.A., personal communication August 1, 2008). The exception to this was in PHC 3 where I included a community member who was involved in locating physical space in which the NP would see patients.

Inclusion of NPs, physicians, and other employees who had been in their positions for more than six months excluded participants who may not understand the NP role (Brykczynski, 2005). The first six months of employment for all new employees, including NPs, can be a time of learning organizational structures, policies, procedures, and expectations of the setting. Settings where the NP role had been implemented for less than six months were excluded from the study.

Data Collection

Two methods of data collection were used in this study. The first was semi-structured interviews with key informants and the second was data abstraction from key documents.

Semi-Structured Interviews. In qualitative research, the process of data collection and analysis is an iterative process that occurs simultaneously (Creswell, 1998;

Denzin & Lincoln, 2005; Government Accounting Office, 1990; Lincoln & Guba, 1985).

I developed interview guides for use during the interviews. The interview guide was derived from the review of the literature, the propositions, and conceptual framework used in this study (Yin, 2009) and the wording of the guide varied based on the type of participant being interviewed (Appendices B, C, D & E). Prior to beginning data collection, I pilot tested the guide with a manager of a PHC setting not selected to participate in the study. As a result of pilot testing, I made minor modifications to the questions for the purpose of clarity.

I conducted semi-structured individual interviews with the manager, physician, other staff, and the NP working in the PHC settings. Hearing the voices of multiple diverse key informants provides richness to the understanding of the process of NP role implementation in a way that could not be captured through the use of predetermined survey questionnaires (Sandelowski & Barroso, 2003; Whiting, 2008).

I used interview questions to generate discussion of how key informants were involved in the implementation process, their understanding of the intention for the role, and their views on how the role was being accepted in the PHC setting. I followed the format for interviews reflected in Appendices B, C, D and E and varied the questions slightly to address the informant's role in the setting (Whiting, 2008). All interviews, with the exception of one, occurred face-to-face in a private, mutually agreed upon location, took approximately 60 minutes and were audio-recorded and later transcribed verbatim. One interview was conducted over the telephone. Table 5 summarizes the number and types of participants interviewed in each PHC setting.

Table 5. Participants Interviewed in Each PHC Setting

Participant	PHC 1	PHC 2	PHC 3
Manager	2	1	1
Physician	1	1	1
RN	1	0	1
NP	1	2	1
Medical office assistant	0	1	0
Staff coordinator	0	1	0
Community member	0	0	1
Total Participants	5	6	5

The questions were worded to allow for variation of the informant's understanding and perceptions to emerge (Knapik, 2006; Shotter, 2005). When appropriate, I used probes to generate more in-depth discussion of informants' involvement in the implementation process, their understanding of the intention of the NP role in the practice setting, and their level of acceptance of the role (Richards & Morse, 2007). I used interviews with NPs to understand their perceptions of how they were enacting their role and if they were practicing to full scope as described by the CRNBC competencies for NP practice (RNABC, 2003) (Appendix E). I personally conducted all interviews (Connelly & Yoder, 2000; Stake, 1995; Yin, 2009).

The intent of all interviews was to gain an understanding from key informants of how the concepts of involvement, acceptance, and intention did or did not relate to the process of NP role implementation (Yin, 2009). Heterogeneity among data sources provided different perspectives on the process of NP role implementation (Richards & Morse, 2007).

Document Review. In each PHC setting, the types of documents reviewed varied. There was no proposal for the NP position submitted to the NP steering committee in PHC settings 1 or 2. In these settings, I was able to obtain a copy of their individual

project charters. I reviewed the proposal submitted to the steering committee by the manager of PHC 3. Staff from the health authorities' human resource department provided me with the organizational NP role description. I also accessed information pertaining to the health authority, for example the strategic plan, from its website. I accessed municipal websites for information related to geographic locations of the PHC settings. I obtained the CRNBC competencies and standards for NP practice from the College's website. I used the data abstraction tool that I developed for this study (Appendix H) to assist me examining the documents for content related to the NP role and how the NP was expected to function in the PHC setting.

Data Management

Semi-Structured Interviews. At the beginning of each interview, participants were identified by a number that I used to match the participant to the transcripts later. Upon completion of each interview, I summarized responses to the interview questions and asked the key informant if I had captured his/her intent. This summary served as member checking. The intent of member checking was to verify what was said in the interview and to provide an opportunity to clarify any areas that were unclear (Creswell, 1998).

A folder for each PHC setting was created and interviews were placed in the appropriate folder for the PHC setting. Once the interview data were collected, the text files were given to a professional transcriptionist who signed a confidentiality agreement (Appendix J). The transcripts were returned to me in text files. Each file was identified by PHC setting and type of participant interview. Text files were imported into my password

protected computer. I made paper copies of each transcript and listened to the taped interviews while reviewing the transcript checking for accuracy of the transcription.

I imported each folder designated by PHC setting into N-Vivo 8 (Richards, 2005). This allowed me to retrieve each interview in each PHC setting easily and to create sets of data within N-Vivo. Coding of transcripts within N-Vivo provided an electronic depository of data that could be easily retrieved and managed (Richards, 2005).

Documents. I used the data abstraction tool (Appendix I) to determine consistency between the expectations as outlined in the document and how the NP was functioning in the setting. Documents also provided a historical context as to how the demonstration projects were developed and the role of the NP in the setting.

Data Analysis Strategy

As stated previously, data collection and analysis proceeded in an iterative process. Understanding of the data is created through analysis (Richards & Morse, 2007). Data analysis strategies may follow the propositions developed for the study, test rival explanations for the case, or develop a descriptive framework for organizing the case (Yin, 2009). My original intent in developing the propositions and conceptual framework for this study was to use these to provide strategic direction for data analysis. Following the propositions helped to focus data analysis and reduced the temptation to analyze data outside the research questions (Bergen & While, 2000). The iterative process of comparing data to propositions allowed me to accept or reject the propositions and to consider rival propositions arising from the data. This iterative process also contributed to the confidence in the findings of the case study (Baxter & Jack, 2008; Hancock & Algozzine, 2006). Although multiple sources of data were collected and analyzed, the

goal of data analysis in case study is not to analyze independently individual data sources. Instead, the goal is to converge the data from all sources within each setting and then across settings (Anderson et al., 2005; Baxter & Jack). Therefore, I analyzed the interview data and documents obtained from each PHC setting (Yin, 2009). Once this level of analysis was complete, I analyzed the data from across all settings in order to understand how the health authority implemented the NP role.

Analytic Techniques. As with any analytic strategy to direct the data analysis, a technique for case analysis is useful. Yin (2009) recommends the use of one of five different techniques; 1) pattern matching, 2) time series analysis, 3) explanation building, 4) logic model, and 5) cross- case synthesis. Pattern matching compares empirically based patterns with predicted ones, while time series analysis allows change to be traced over time. Explanation building is similar to pattern matching; however, the goal is to build an explanation of the case (Yin, 2009). The logic model has been useful in case study evaluations and provides a chain of events over time. Cross-case synthesis is specifically applied to analysis of multiple cases.

In this study, I used the technique of explanation building for data analysis. The goal of analysis using this technique is to build an explanation about the case, or to explain how the NP role was implemented in the health authority. In a narrative format, I built an explanation of the process by using an iterative process of comparing the data to the study's propositions, conceptual framework, and research questions. By constantly referring to these, I was able to maintain my focus on how the role was implemented (Yin, 2009).

Data Analysis of Semi-Structured Interviews. Analysis of data from the interviews began by rereading the transcripts once they were imported into N-Vivo, identifying codes, and sorting the coded data into nodes. N-Vivo provides several types of nodes for managing data. Free nodes are used to code data where there is no identified relationship among concepts. Tree nodes are another type of node that is used to create hierarchical categories and subcategories of concepts (Bazeley, 2008).

Establishing codes is a strategy to move data from diffuse text to more organized ideas about what is going on in the setting. By coding the data I was able to identify categories and patterns (Boyatzis, 1998; Richards & Morse, 2007). First, I created free nodes by defining the concepts of involvement, acceptance, intention, and implementation. These free nodes allowed me to capture data related to each concept without assuming relationships among them (Bazeley, 2008). Second, within each free node, I sorted or classified the data into tree nodes. Third, as more data were collected, preliminary categories and codes were expanded and collapsed so that ongoing refinement of coding categories, themes, and concepts could occur (Richards, 2005). Finally, patterns and relationships emerged from the data that provided an explanation of how the concepts of involvement, acceptance, and intentions influenced the process of implementation of the NP role in the health authority (Burns & Grove, 2001; Gangeness & Yurkovich, 2006; Yin, 2009).

A second PhD-prepared researcher and I read over a set of transcripts to identify and agree upon the initial coding structure. Comparison of coding between the second coder and me identified areas of similarities and differences. We both agreed that using the concepts of involvement, intention, acceptance, and implementation as free nodes

provided an organizing strategy to begin to code the data. Having two people analyze data contributed to interrater reliability (Creswell, 1998).

Data Analysis of Key Documents. Strategies to analyze documents may focus on either the content or context of the document. Content analytic strategies focus on the document as sources of fixed evidence about the social world. Context analytic strategies embed the document in the social context in which they were developed and used (Miller & Alvarado, 2005). Key documents were not coded, but were used to understand the social context in which they were developed and supported the writing of the narrative describing how the NP role was implemented in each PHC setting. Documents obtained from each PHC setting were reviewed using the data abstraction tool (Appendix I). The proposal submitted to the NP steering committee was reviewed to determine the purpose of the NP position and the patient population for whom the NP was intended to provide care. CRNBC documents were used as a guide when assessing how NPs were enacting their roles. The NP's role description was reviewed to provide general information about how the role was defined within the health authority and the PHC setting.

Convergence of Data. First I analyzed the data from each PHC setting, that is, each sub-unit of analysis, individually. This allowed me to understand and explain how the role was implemented in each PHC setting. During data analysis, I converged the data from the interviews in each PHC setting to understand how the role was implemented in that setting. I used documents obtained from each setting to understand historical context and organizational expectations for the NP role in that setting.

Next, I analyzed the data from all three settings collectively. If I had used multiple case studies, this would be referred to as cross-case analysis. This study was a single case

with embedded units of analysis. In this final step of data analysis, I looked at the case as a whole, which meant converging data from the three PHC settings to explain how the health authority implemented the NP role.

Reliability and Validity. Lincoln and Guba (1985) have suggested that terms such as validity and reliability represent a positivist paradigm and should not be used by qualitative researchers. Instead, they suggest substituting trustworthiness, applicability, and dependability when describing how the researcher went about obtaining, collecting, and analyzing data. Although the terms reliability and validity may be problematic for some qualitative researchers (Morse & Richards, 2002), I needed to describe how this research was conducted so that others could judge the quality of my research design (Yin, 2009).

Yin (2009) lists four tests used to establish the quality of case study research. These are construct validity, which refers to measures used to collect appropriate data for the concept being studied; internal validity, which seeks to establish causal relationships and is demonstrated in data analysis; external validity, which defines sampling criteria and is demonstrated in the design of the research; and reliability, which demonstrates how the study could be repeated. Following Yin's (2009) suggestions, I ensured reliability and validity of my findings by using a number of strategies.

Construct Validity. Construct validity was addressed by developing and pilot testing the interview guide before using it and obtaining data from multiple sources, specifically interviews with a variety of key informants and review of key documents. I triangulated data as I compared and corroborated findings from diverse perspectives and linked data to the propositions and research questions in the final report (Creswell &

Miller, 2000; Yin 2009). At the completion of each interview, I summarized my understanding of the informant's responses and asked for verification of the summary for accuracy (Lincoln & Guba, 1985). This method of member checking strengthened the study's credibility, confirmability, and the transferability of my recommendations (Bero et al., 1998; Brazil, Ozer, Cloutier, Levine, & Stryer, 2005; Carnevale, 2002).

Internal Validity. I collected and analyzed data in an iterative process in order to build an explanation for how the NP role was implemented. Debriefings to discuss findings with my thesis committee and supervisors helped me to confirm or explore rival explanations for my findings (Lincoln & Guba; Yin, 2009). I used rich, thick descriptions to explain my findings (Connelly & Yoder, 2000; Creswell & Miller, 2000; Lincoln & Guba; Stake, 1995; Yin, 2009).

External Validity. I developed propositions and a conceptual framework based on my review of the literature and used these to guide the research design. I used purposive and criterion sampling (Miles & Huberman, 1994) to select informants. A second PhD-prepared researcher, experienced in qualitative research, reviewed my initial coding structure and analysis of the findings from PHC 1. The use of a second researcher for coding of data and comparison of codes increased interrater reliability. Additionally, I involved decision maker partners from the steering committee by keeping them informed of my progress.

Reliability. I developed a case study protocol which included interview questions, and detail of the types of documents to select for review. I maintained a research log in which I described the research process and all analytic memos outlining decisions made regarding coding and interpretation of data. Table 6 demonstrates the approaches I

Test	Case Study Approach	Phase of Research Where Approach is Demonstrated
	<ul style="list-style-type: none"> • Document selection 	

(Adapted from Yin, 2009, p. 41)

Ethical Issues

At the beginning of each interview, each participant was identified by setting and role, for example, the physician in PHC 1 was identified as CS1MD1. All audio files were stored in my password protected computer and a copy of the file given to a transcriptionist who had signed a confidentiality agreement (Appendix J). During transcription all names mentioned during the interview were deleted. The transcriptionist delivered the transcripts of audio files to me and I made paper copies for review. Paper copies of transcripts were stored in a locked file cabinet in my office at the University of Victoria and will be retained for five years.

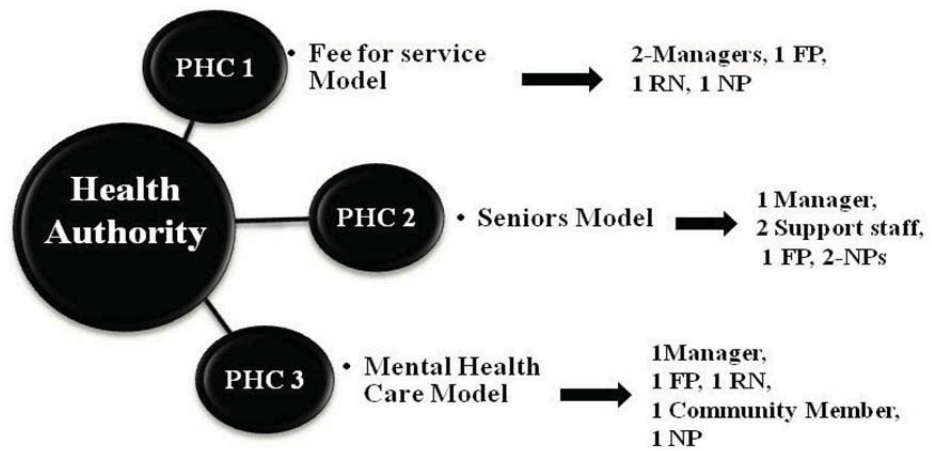
Participants included managers, physicians, NPs, and professional staff (e.g. RNs, medical office assistant). Because the setting of each case could be known if the name of the health authority was released and participants could be identified, the name of the health authority is not used in this document. In order to maintain participant anonymity I do not refer to participants by role type, but instead refer to them as “participant”. Prior to beginning the interview, I gave each participant a copy of the decision-maker letter for participants (Appendix G) and the consent form (Appendix I). After each participant had an opportunity to read the two documents and ask questions, I asked her/him to sign the consent form before the interview began. Participants had the right to withdraw from the research at any time without penalty (Canadian Institute of Health Research et al., 2005). I left a copy of the consent form with each participant. My name and the names of my

thesis co-supervisors were included on the form, in the event the participant needed to contact me after the interview (Appendix I).

CHAPTER 5 FINDINGS

The purpose of this study was to understand and explain how the health authority implemented the NP role in PHC settings. I used an explanatory single case study of one purposively selected health authority with three embedded sub-units of analysis (PHC settings), that were also purposively selected (McDonnell, Jones, & Read, 2000). The PHC settings included: 1) a fee-for-service physician office in an urban area, 2) a seniors PHC centre located in an urban area, and 3) a PHC setting specializing in mental health care located in a remote-rural community. Variation among the PHC settings included geographic location, model of care, and patient populations. Figure 7 illustrates the three PHC settings, models of care, and participants.

Figure 7. Primary Health Care Settings and Participants



Propositions for this study were that clearly identified intentions for the NP role, involvement of key stakeholders, and acceptance of the role positively influence implementation. In addition, involvement and acceptance of key stakeholders in the implementation process and clearly identified intentions for the role influence the NP's ability to enact all role domains.

For the purpose of this study, I defined implementation as the process used in PHC settings to identify the need for the NP role, determine how incumbents in the role would function, and recruit and hire NPs. The process of implementing the NP role into PHC settings in BC is the continuation of a policy initiative that began in 2000 when the MOH announced intentions to introduce NPs to improve public access to health care (CRNBC, 2006a). The MOH delegated the responsibility for determining where and how NPs would be hired to regional health authorities (CRNBC, 2006a). Accordingly, health authorities translated the MOH's directives into strategies to implement the role. Health authority expectations were that NPs would increase access to care, contribute to the functioning of multidisciplinary care teams, and improve patient outcomes (CRNBC, 2006a).

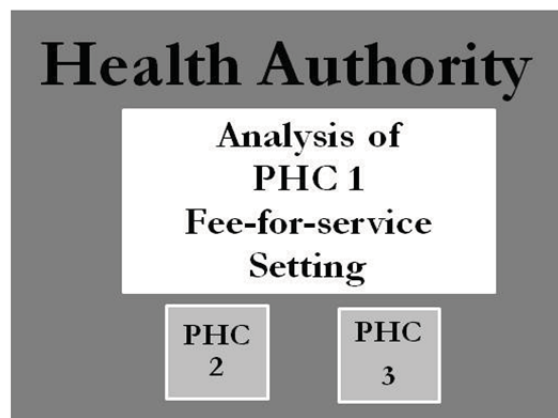
In this chapter, I present the findings from my analysis of the case study by first presenting my analysis of each PHC setting. The first embedded sub-unit is a fee-for-service physician office (PHC 1), the second a seniors PHC centre (PHC 2), and the third offers PHC to a population of patients with mental health care issues (PHC 3). Following this analysis of each setting, I present the findings from the case as a whole by presenting my analysis across the three embedded units of this single case study of NP role implementation in a health authority. Consistent with triangulation of data (Figure 6,

Chapter 4), first I converged data from interviews and documents in each PHC setting to construct my understanding of the process of NP role implementation in individual settings. Once I had constructed an explanation of how the health authority implemented the role in its PHC settings, I converged data from the three PHC settings to explain the case, or the process used by the health authority to implement the NP role. Convergence of data also contributed to content validity (Table 6, Chapter 4) (Yin, 2009). Because of the small sample size and the need to protect confidentiality, I refer to participants collectively and do not identify anyone by role, gender, or title.

PHC 1: Fee-for-Service Model

Figure 8 identifies the fee-for-service setting as one of the three sub-units of analysis in this single case study. Findings from PHC settings 2 and 3, the other subunits, are presented later in this chapter.

Figure 8. PHC 1 Sub-Unit: Fee-for-Service Setting



Context of PHC 1. The majority of FPs providing primary care in BC practice in fee-for-service environments. One approach used by the health authority to build capacity in primary care was to establish a demonstration project that would introduce NPs into fee-for-service FP practices. According to the demonstration project charter, the health authority and the FPs in the setting signed a contract that was referred to as a 24 month Assignment Agreement. Terms of the Agreement indicated that the health authority employed the NP and paid the practice for overhead expenses incurred by the NP. I discuss the terms of the contract later in this analysis. The health authority's intent was to add another primary care provider to the system without infringing on fee-for-service FPs' income. The health authority purposively sought out FPs interested in partnering in a demonstration project to determine the feasibility of this shared arrangement and invited them to attend a meeting with health authority managers to discuss the project. FPs from PHC 1 expressed interest and the setting was selected to become one of three demonstration sites. Four of the five regional health authorities in BC placed NPs in fee-for-service settings. Altogether, NPs were placed in 14 different fee-for-service settings in the province.

In early 2007, the health authority and the fee-for-service practice entered into an Assignment Agreement and the NP was hired in July of the same year. A factor that influenced the willingness of FPs in PHC 1 to partner with the health authority was their previous exposure to an NP student. Working with and establishing a relationship with a student NP helped FPs and other staff in PHC 1 to begin to understand an NP's scope of practice. This in turn contributed to their willingness to enter into a contract with the health authority.

The fee-for-service practice was one of 12 physician offices located in an urban area of approximately 22,500 people. The practice was originally located approximately 10 kilometers from its current site. The physician group in the practice relocated to the new building in 2007 at about the same time as the NP was hired. The group, which consists of eight FPs, rents the office space. The patient population cared for by the group is primarily middle class Caucasians of all ages, which is representative of the community in which the practice is located.

Upon entering the office, I encountered a reception area. Receptionists sat behind a raised counter and were visible upon entering the office. The waiting area was spacious with seating arranged along the three exterior walls of the office. On either side of the waiting area were hallways leading away from the reception counter toward the back of the office. While I waited for my appointment with one of the participants of my study, I observed the reception staff busily responding to patients coming in for appointments, answering telephone calls, and scheduling appointments and other staff members coming into the waiting area and asking patients to accompany them down one of the hallways.

The NP and FPs' offices and examination rooms were located off one of two hallways on either side of the building. As I was led down one of the hallways, I observed FP offices on one side of the hallway and examination rooms across the hall from the offices. Each FP had an office with two examination rooms across the hall from his or her office. The NP occupied one room that served as office and examination room. At the rear of the building, the two hallways merged and opened into a large common area for staff who were responsible for record keeping, billing, and other support

services. The business manager's office was off the common area. Behind the common work area was a kitchen, dining table, and staff washrooms.

The complement of staff included one full-time and 8 part-time FPs, 14 support staff, and one NP. Members of the support staff included two RNs responsible for assisting FPs, responding to telephone calls from patients, and carrying out FPs' verbal orders; one assistant responsible for stocking examination rooms and setting up procedure trays; two billing clerks responsible for submitting FP patient encounters to the medical services plan; two medical records clerks for entering patient data into the electronic medical record; three transcriptionists responsible for transcribing patient notes dictated by the FPs and NP and mailing referrals; three receptionists for scheduling appointments, faxing requisitions for diagnostic testing, and calling patients to remind them of their appointments; and the business manager.

FPs in the group practice had a cost-sharing arrangement and contributed to the salaries of all employees, except the NP, and other overhead costs such as office space rental, utilities, and other expenses of running the practice. Each FP practiced autonomously in parallel with other FPs, with a roster of patients, and saw 30 to 40 patients a day when in the office. All but one of the FPs participated in on-call coverage on a rotating basis for weekend hospital admissions. A walk-in clinic was associated with the practice and patients were directed to go to the walk-in clinic for problems that developed after hours during the week and on weekends. All support staff were employees of the fee-for-service practice and were paid through the cost-sharing arrangement among the FPs. The NP was the only health authority employee.

Prior to being hired into the position, the NP spent 820 practice hours over six months in the fee-for-service setting as a student NP. Several of the FPs functioned as preceptors for the student NP. As a health authority employee, the NP reported to a manager of the health authority. One participant described the NP's reporting relationship as follows:

[NP] doesn't report to basically anyone in the clinic here. The reporting structure is basically with the health authority. [NP] basically relates to me as another physician. I talk to [NP] about how scheduling is going to look and we work out when [NP] is going to be in. But it's [NP's] decision and along with the health authority as to how much or how little time [NP] spends in this clinic.

The NP was a full-time employee of the health authority and spent approximately 75% of his/her time providing direct patient care. In the event of any employee issues with the NP, the arrangement was that the FPs or business manager were to advise the health authority manager who would then be responsible for addressing those issues. All participants remarked that the NP's reporting relationship to a manager outside the fee-for-service practice had not been problematic and described the NP as a "good fit" with the team.

Data Sources. Participants who volunteered to be interviewed from the fee-for-service practice included an FP who had been in practice in the area for 26 years, was involved in the early planning for the NP role and mentored the NP as a student, an RN who had been an employee of the practice for 17 years, the practice's business manager who had been an employee for three years, and the NP. In addition, the health authority manager who managed the NP's contract with the setting and to whom the NP reported was interviewed. One face-to-face interview lasting approximately 60 minutes was conducted with each participant.

Documents included in data analysis were the demonstration project charter that had been developed within the health authority to guide the implementation of this new project, the health authority’s NP role description, and the CRNBC competencies, scope of practice, and registration documents. The charter provided the background and purpose of the project, as well as activities to be carried out during the project, structure or reporting relationships, the budget and timelines. The CRNBC documents provided a description of the NP registration process, as well as NP competencies and scope of practice. The Assignment Agreement between the health authority and the fee-for-service FPs was not made available to me and was included as a data source. Primary sources of data were the interviews and the documents. Table 7 provides a list of all data sources included in PHC 1.

Table 7. Data Sources for PHC 1

Data Sources	Interviews	Documents Reviewed
Manager	2	Demonstration Project Charter Health authority’s NP role description CRNBC Competencies, Scope of Practice & Registration
Physician	1	
NPs	1	
RN	1	
Total Interviews	5	

NP Registration. According to CRNBC’s registration documents found on their website, newly graduated NPs must complete two registration examinations prior to being fully registered with CRNBC. The first is a written examination developed by the American Nurses Credentialing Centre in the U.S. and the second is an objective, structured clinical examination (OSCE). Both examinations are administered through CRNBC. The written examination is offered once a year in November and the OSCE is offered twice a year in January and June. Upon completion of one of three BC

universities' approved NP programs, CRNBC grants provisional registration to NP graduates. Graduates of NP programs outside of BC apply for registration as out-of-province applicants. Provisional registration allows graduates to begin practicing as NPs prior to completion of registration examinations. Most BC student NPs complete their programs in August and graduate in November of the same year. Provisional registration allows graduates to begin practicing as early as September, once all course work has been completed and the university confirms that the student has successfully completed the program. Given the scheduling of registration examinations, it is not uncommon for an NP to hold provisional registration for up to eight months. As well, NPs with provisional registration must be supervised by a physician or a registered NP. During this time, the supervising provider must sign all prescriptions written by the provisional NP, all orders for diagnostic testing, and any referrals to other agencies and providers. Once the NP becomes fully registered with CRNBC there is no longer a need for supervision.

In the fee-for-service setting, the NP's educational program was through a university outside of BC. Because the program was offered through distance education the NP could live and work in BC while attending a program in another province. The NP graduated from the NP program in April 2007, was hired by the health authority in July and became fully registered April 2008. The NP had to explain the difference between provisional and full registration to FPs unfamiliar with NP registration. While FPs were supervising the NP with provisional registration they could legitimately bill the medical service plan for patient visits made by the NP. Although initially there was confusion about being able to bill for the NP's visits and then not being able to bill, the NP helped

others to understand the process and this did not present any difficulties for the FPs or the NP.

Model of Care. The impetus for implementing the NP role into a fee-for-service practice originated at the organizational level within the health authority. In an effort to build capacity in primary care, managers of the health authority actively sought FPs interested in collaborating in a demonstration project. According to the charter, the demonstration project was expected to run for 24 months and then be evaluated. The charter indicated that the health authority would use patient and provider satisfaction, practice efficiencies, and impact on fee-for-service physician billing as indicators of quality and sustainability of this shared arrangement. According to the project charter, establishing this model of care as a demonstration project was a health authority strategy to build capacity in the PHC system.

The NP was a health authority employee and the health authority assumed responsibility for the NP's salary and benefits and reimbursed the practice for the actual NP costs including office space and overhead, supplies, and medical office assistant's time. As the employer, the health authority also assumed responsibility for orienting the NP to the organization, approving leave time, and managing any employee related issues. Physicians in turn were expected to provide space and staff support for the NP. The health authority equipped the NP work space, which was comprised of one room that served as an office and examination room, with office furniture and an examination table, a computer and cellular phone.

The majority of FPs in the fee-for-service setting practiced part-time. Each FP in the group practice contributed to a cost-sharing arrangement in which a percentage of

their income generated through fee-for-service billing supported payment of employees' salary and the overhead costs of the facility. The work of the RNs, manager, and other support staff was to support the practice of the FPs. One participant described the RNs' work as:

The RNs assist the doctor, fill rooms, act as the patient liaison, follow doctor's orders, and follows through on things. The RNs do anything and everything from putting someone in a room, answering the phone, triage, patient teaching, injections, to dressing changes. You name it, it's done by the RNs.

The RNs did not have scheduled appointments with patients, but were involved in triaging patient phone calls, health teaching and counseling. In addition to this, the RNs assisted the FPs by putting patients in rooms, checking blood pressures and weighing patients. If FPs were not seeing patients, they were not billing for services. All services provided by the FP were billable. It was through this billing arrangement that FPs were able to contribute to the overhead of the setting. The NP as a salaried employee of a health authority was paid a set amount regardless of the number of patients seen. This arrangement was different, but not problematic, for the staff who were used to billing the provincial medical services plan for all FP services. The NP's services were not billed to the medical services plan; however, the NP submitted encounter codes to the MOH. Encounter codes were created by the MOH in 2006 to track NP practice patterns.

The health authority intended that placing an NP in a fee-for-service practice would be revenue neutral, meaning the NP would be paid a salary and would not encroach on the FP's earnings. Participants related that the consequence of having a salaried NP, instead of an NP remunerated by fee-for-service, was missed opportunities to generate revenue from the NP's practice. An example of a missed opportunity to bill for services came as a result of the NP assuming responsibility for a retiring FP's

practice. Originally, the intended main role of the NP was to co-manage existing patients with chronic diseases. This was to allow the FPs to concentrate on other patients while the NP was working with patients requiring more time to manage chronic conditions such as diabetes and hypertension. However, with the unexpected retirement of one of the FPs, the NP assumed responsibility for those patients. Participants stated that because the NP became the primary care provider for those patients, the patient visits were not billable to the medical service plan and the practice lost the revenue that would have been generated had the patients been seen by an FP. A participant related:

We had a doctor that retired and there were no doctors that could take his work load. We had the nurse practitioner help with that and of course we didn't do any billing on the NP's visits. [NP] provided a service to our patients and allowed them to stay within the clinic and have all their records maintained here.

Nevertheless, the FPs were willing to forfeit revenue from the patient encounters in the short run to facilitate patients staying in the practice and maintaining their access to care.

Another lost opportunity to generate revenue was the result of the NP being unable to complete and sign various government forms for services such as home care, meal supplements, and medical equipment. Unfortunately, regulation had not yet changed to include NPs as signatories for various forms or for completing certain examinations. At the time of this study in 2009, there were numerous government forms that only physicians could complete. Because of this, the NP could not charge for letters that needed to be provided to patients, complete various forms for which the setting charged, or perform examinations (e.g. driver's license physicals) that could generate revenue. A way around these restrictions was that one of the FPs signed the forms once the NP had performed the work. This meant that the NP's responsibility and actions remained invisible to the larger health system. Although the MOH was in the process of addressing

these issues, various regulations needed to be changed to include NPs as providers of services previously reserved for physicians. The inability of the NP to complete the forms created a barrier to the NP's practice. Asking the FP to sign for work completed by the NP created inefficiencies in the health system and was a source of frustration for the NP as related by this participant:

Under the Health Act, [NPs] are technically not supposed to do drivers' medicals. How can [NPs] provide primary health care without doing a drivers' medical? [NPs] do the drivers' medical examinations and then get a physician to co-sign the form.

Intention. While the project charter did not specifically define a patient population for the NP's practice, there was an expectation by the health authority and PHC 1 participants that the NP would co-manage existing patients with multiple chronic health conditions.

There were a lot of meetings, but the health authority was pretty vague about it all. They came in with hopes of doing an initial assessment of the practice, baseline chronic disease management goals and introduce the nurse practitioner and see if chronic disease management improved.

In this way the NP would augment the current model of care by spending more time working with patients to get their conditions under control, thus freeing up FPs to spend more time with other patients and possibly take on new patients. Working collaboratively with the FPs in the fee-for-service setting, the NP would supplement and not substitute for the FP's role. A participant described how the role was envisioned:

When I was thinking about [NP] coming here it was mostly set up around chronic disease management, enhanced services for our chronic disease patients and motivational things. How to get things like blood sugars that were difficult to control in 10 minute visits every month or two.

Team members had a general idea of how the NP role would function because of their previous exposure to the NP as a student. After the NP was hired, participants

looked to the health authority for guidance about how the role should be enacted.

Unfortunately, during the first eight months after the NP was hired, the health authority manager changed several times.

When we first got started we had a manager, that manager changed four times in eight months. It was very difficult to discuss where the role had started and where it was supposed to go and to get some direction because no one knew what was expected of the role...Upper level management, up a step from our manager, was supportive but had so many issues going on, so that was not the place to take these concerns.

Although there was consistently a contact person within the health authority, participants wanted someone who was more directly responsible for implementing the NP role in PHC 1. During these early days, as everyone grappled with how best to utilize the NP, participants felt unsupported by the health authority and described this time as frustrating.

From the organization's perspective in the beginning I don't know if the level of support was there that [NP] should have had. Why? Number one [NP] was a very new nurse practitioner and a strong manager would have been paramount. It was unfortunate that the management structure was going through significant changes at that time and there were four managers in eight months. All of those changes left [NP] feeling quite unsupported at a time when [NP] needed it the most. Within eight months, we had to figure out what the role was and where [NP] needed to go with it, and hope that it was okay. That time period was very difficult.

The wording of the demonstration project charter was purposefully flexible to allow the team to determine how best to meet patient needs. However, what managers of the health authority perceived as flexible was interpreted as ambiguous by the team. The team wanted more structure in the early days after the NP was hired. As a new graduate, the NP was a novice and the team's only experience with the role was the time the NP had spent in the setting as a student. They experienced difficulty translating into practice how the NP would actually work with FPs to co-manage patients with chronic diseases

and which patients would be seen by the NP. Unforeseen circumstances actually helped the team to clarify how best to use the NP.

Shortly after the NP was hired, the practice moved to a new geographic location. In the middle of the moving plans, and unrelated to the hiring of the NP and the demonstration project, one of the FPs unexpectedly announced his retirement. The consequence of the FP's retirement was that approximately 1800 patients would be without a provider. Another FP from outside the PHC 1 group practice, who could have assumed responsibility for these patients, decided not to relocate to the area. All of the remaining FPs in PHC 1 had full practices and could not absorb the 1800 patients into their own practices. According to one participant, patients of the retired FP, whose health records were located in PHC 1, began going to the emergency department or the hospital for care.

When [NP] was initially here we had just lost two physicians to our clinic, one to retirement and one who just decided to practice elsewhere in the middle of our move. So we were pretty thin on the ground and it was difficult because those people were hitting the emergency department and hitting the hospital. The town was really short on general practitioners and we had to cover those visits in emerg or the hospital and try to give them care. A lot of those patients really weren't suitable for a walk in clinic setting. They needed some ongoing management and needed some tidying in general. So [NP] was perfect for providing care to the retired physician's patients and fulfilling our needs at the time.

According to one participant, the NP assuming responsibility for the retired physician's patients resulted from a suggestion made by the NP.

They were having a meeting about what were they going to do with these 1800 patients when [NP] said, "[NP] can help. [NP] can't see a patient every 10 minutes and certainly can't see 1800 of them, but [NP] will take a 1000 and we'll see how it goes." And the role just kind of progressed after that.

In order to keep these patients from going to walk-in clinics or the emergency department, the NP put forth the suggestion to follow the patients, or as many as could be

cared for by an NP. While this was a change from the original intentions for the NP role whereby the NP would provide chronic disease management for existing patients in the practice, it helped to crystallize the patient population the NP would follow and the role continued to develop from this change. One participant described the change in intentions that resulted from the FP's retirement as:

The other doctors all had established practices and were overloaded already, so they could not really take that many of those patients. The FPs took a few patients and so [NP] was able to help us with that workload. We sort of anticipated that it was going to be an issue when we first moved because we thought we had a doctor coming and [FP] did not come at the last minute so to speak. So [NP] helped fulfill that end and a lot of patients ended up by staying with [NP].

The change also demonstrated the willingness of team members to adjust their thinking about the role and provided the NP with the opportunity to care for those patients who were without a provider.

Clarifying Intentions. When the physicians in PHC 1 were faced with the implications for patient accessibility resulting from the FP retirement, the idea of adapting the intentions for the NP role to meet local needs was acceptable to the health authority, as well as to the team. Although managers of the health authority may have anticipated the need to adjust the purpose for hiring the NP in the setting, once the NP was actually hired, the participants in PHC 1 were hesitant to make the change. They were unsure if making the change would be approved by the health authority. They also wanted to adhere to the requirements of the Assignment Agreement which, according to participants, stated that the NP would co-manage patients with chronic diseases. According to participants, they asked the health authority manager several times to articulate what the NP was supposed to do in the setting. Although the manager

responded by advising the team to make adjustments to meet the needs of the setting, they found this response vague. A participant described this period of uncertainty:

Because of the turnover in health authority managers it was very difficult to discuss where the role had started and where it was supposed to go and to get some direction because no one knew. I think that when we got started the health authority had a vision but I do not think they were ready for the expansion of the role so quickly. So often times we would be caught asking, is this okay? Can [NP] do this? They just kept saying “do whatever the clinic wants the NP to do”.

As mentioned previously, because of turnover in health authority managers, obtaining direction and approval to make the changes was problematic and stressful for PHC 1 participants. The NP being a novice in the role, the team’s unfamiliarity with the role, and the novelty of the demonstration project added to participants’ uncertainty and their need for more direction about how to implement the NP role. Ultimately, agreement was reached by all parties and the NP assumed responsibility for many of the retired FP’s patients.

Fortunately, a manager who provided the needed consistency was hired about eight months into the implementation process of the NP role in PHC 1. As the NP and the staff became more comfortable and familiar with the role, and once the NP’s patient population was identified, clarifying intentions was not as difficult. Once team members could observe the NP practicing to full scope, they began to understand better the NP role and the capabilities of the NP. One participant demonstrated trust in the NP’s capabilities as follows:

[NP] is responsible more or less for patients’ longitudinal care, and does not ask anymore much about what to do and is quite competent in what [NP] does.

The initial uncertainty of how to implement the role was replaced with confidence in the NP’s capabilities. At the time of this interview (April 2009), the NP had a roster of

approximately 800 patients many of whom had been formerly cared for by the retired FP, as well as patients that either joined as new patients or were previously followed by other FPs in the practice.

Defining the Role. Whilst participants described the NP role as similar to that of an FP, they believed it was additive to the setting. They recognized that the NP could manage more complex patients than could the RNs and that, as a salaried employee, the NP could spend more time with patients focusing on chronic disease management, health promotion, and self-care management. Over time, team members' understanding of the role expanded. As they witnessed the NP mature in the role and move from novice to experienced NP, they developed an appreciation for the contributions the NP was making to the setting. One participant described the NP's contributions this way:

I think [NP] was just a bonus to the doctors as far as spending more time with the patients and helping them understand and keeping them on track and patient teaching and that sort of thing.

Long-Term Planning. Originally, the health authority established the NP role in the fee-for-service practice to determine the feasibility of the initiative over the long-term. According to the charter, the health authority intended to evaluate the demonstration project at the end of 24 months and determine whether to renew the Assignment Agreement. At the time of these interviews, April 2009, the evaluation was scheduled for some future time and it was unclear to participants whether the contract would be renewed and if the NP would continue in the setting. Implementing the role as a demonstration project had connotations of impermanence and, according to participants, the health authority had not provided any indication of long-term plans for the NP.

The health authority is still very unsure of how long this role is going to last. I know that the clinic was just asked to sign a contract that takes [NP] to the end of September. Well what happens at the end of September? We don't know.

The health authority held the funding for the NP position and without those funds there would be no way the FPs could cover the NP's salary, benefits, and overhead costs as this participant relates:

Sorry, if the health authority doesn't fund it, we will fill this space with someone who will make us more money.

Several participants remarked that without sustained funding for the role, they could not envision a way for the role to be sustainable in this setting. If the NP left, other providers would need to absorb the patients for whom the NP provided care. With full practices, this could potentially create some hardship for FPs in the practice.

The uncertainty of the role's sustainability contributed to the NP's decision to stop accepting any additional patients who contacted the office seeking a primary care provider. Without an indication of whether or not the NP would remain, accepting new patients did not seem to be fair. Although no one wanted the NP to leave, participants acknowledged that if the contract with the health authority was not renewed, the space created for the NP, metaphorically and figuratively, would be filled by an FP who could generate revenue and contribute to the costs of overhead. Without an indication of future plans, the team could only speculate about possible scenarios of how to replace the NP if the contract was not renewed. A participant remarked that if the contract was not renewed it would be difficult to fill the gap left by the NP. A participant reflected that, with some adjustments to the responsibilities of the roles of the RNs and the medical office assistants, the RNs could possibly assume responsibility for some of the NP's practice.

I know [NP's] contract is up in September... if we do not have a nurse practitioner we will figure out how to use that space readily and ... fill that gap, because there

will be a gap. That gap would be hard to fill because [RNs] do not have the time to fill it. Unless they hired more MOAs (medical office assistants) to do what RNs do, which isn't nursing and the RNs just do more nursing with the chronic disease management.

Sustainability of the role in the fee-for-service practice required long-term planning, and, at the time of the interviews, the team was unaware of the health authority's plans for renewal of the Assignment Agreement.

Involvement. According to participants, prior to hiring the NP, a physician from the setting met with health authority managers to discuss how the NP role could be used and negotiated an Assignment Agreement. A participant described the process used by the health authority to involve PHC 1 FPs in early discussions:

The director of primary care and the professional practice office were the ones who, I think, were responsible for writing the proposal and promoting it with physicians. When they received some positive feedback from the clinic they met with at least one lead physician, sometimes two, and the clinic's office manager. It was mostly the physicians and the primary health care manager who met to discuss the placement of an NP in the fee-for-service practice.

Other team members, such as the RNs, were not directly involved in these negotiations.

Although these members were not involved in the process, they were aware of the negotiations and plans to hire an NP. When asked if they would have liked to be more involved, participants remarked that they had not found it necessary because they were occupied with other aspects of providing care to patients.

I don't think I had the time to be involved in early discussions of the role. I didn't really think about it. My job keeps me pretty busy.

The student NP was also in the setting during the time of the negotiations, but was not involved in the early discussions. Participants remarked that they expected the student NP to be hired into the position, and this is what occurred.

In accordance with the Assignment Agreement, the position was advertised through the health authority's office of human resources. Human resource staff also facilitated interviews with candidates. A group comprised of health authority managers and the fee-for-service practice's lead FP interviewed NP candidates for the position. Once the NP who had been there as a student NP was selected, the health authority's human resources department was responsible for developing appropriate orientation activities for the successful candidate. In this way there was some shared responsibility in the interview and selection process. Several participants stated that the interview and selection process went well and they were pleased that the student NP was selected for the position. A participant commented:

I think if the health authority had a different nurse practitioner to bring in here the issues would have been quite different. Because everyone was comfortable and liked [NP] it was a good fit between [NP] and the clinic. It might not have been that way with somebody else. So I think they were smart to leave [NP] here.

The early implementation plans involved only the health authority managers and the designated lead FP from the practice. Time was not spent in the setting discussing a vision of how the NP role would fit with other roles, or gaining a shared understanding of the role. Participants remarked that they were comfortable with this arrangement and that they had an understanding of the role because of their exposure to the NP student. Other FPs in the setting were aware of the need to mentor the new NP and were willing to take on this responsibility. Team members were also aware that while the NP held provisional registration, all NP visits would be billed under the supervising FP billing number. All participants believed that they were adequately prepared for the addition of the NP to the team as this participant relates:

[NP] was here as a student so most of our patients would have either heard of [NP] or met [NP] because [NP] worked with a number of the physicians here. [NP] had been here quite awhile as a student. Hiring [NP] wasn't news to anybody. It wasn't that a lot of introduction was necessary because we already knew [NP] as a student. No, I don't think it was difficult at all for our staff.

Although team members were prepared for the addition of an NP, there were issues not previously considered that needed to be addressed once the NP was hired. These included the need to clarify intentions for the role as discussed earlier, as well as the realization that whilst the internal environment (the practice setting) was prepared for the role because of the team's involvement with the NP as a student, the community was not prepared, nor had community providers or patients been involved in the early discussions. Therefore, the NP, the RN, and business manager became actively involved by responding to questions from medical specialists and pharmacists who were unsure of the NP's abilities and scope of practice, and by encouraging patients who were unaware of the role to make an appointment with the NP. A participant related:

We would tell patients that [NP] could do everything that a doctor could do and then some, because [NP] was able to spend the time with them and explain things. Probably explain them in terms they could understand. Every time they left they would say "you were right, [NP] was so nice, I'm coming back."

Community Involvement. Community stakeholders, such as medical specialists, pharmacists, and people who were existing patients of the practice, were not involved in the early discussions of how the NP role would function in the practice. The practice had been in existence for some time, and there was no perceived need to involve community members in plans to hire an NP as this participant relates:

It wasn't a community needs type of thing like if you were setting up an initial clinic to serve a targeted population with physicians and a nurse practitioner. Then certainly, you would establish what the community needs were. No this occurred in an established practice.

However, once the NP was hired it quickly became evident that the lack of involvement of other community providers in discussions so that they were aware an NP had been added to the community of providers was problematic.

According to participants, no one from the health authority or the fee-for-service practice made a public announcement explaining the NP role and the addition of an NP to the practice's team of providers before the NP was hired. Other health care providers in the community, such as medical specialists and pharmacists, who were unaware of the NP role, scope of practice, capabilities, or competencies had no way of knowing there was a new health care provider in the community until they received a referral or a prescription written by the NP.

A significant portion of the NP's practice involved consulting with and referring to other providers in the community. This included referring to medical specialists and other community agencies, ordering diagnostic tests and reviewing their results, writing prescriptions, and providing care to patients residing in the community. In an effort to familiarize other providers with the role, once hired, the NP sent letters of introduction. In spite of the letters, the nurses, manager, and NP all had to field phone calls from medical specialists clarifying the role, or addressing resistance to the role, and the ability of the NP to refer to them. An example of the RNs and manager fielding phone calls was related by this participant who explained the types of comments made by medical specialists:

We would get calls saying "nurse practitioners can't refer to me," and we would say "yes they can refer to you." [NP] would actually have to talk to them and once [NP] did, they were all sweet as pie. A lot of education that needed to be done was not done prior to [NP] being in the role. [NP] had a lot of roadblocks to get through.

Another participant described resistance:

It wasn't that every physician's office in the world wanted a nurse practitioner. A lot of patients were not interested in having one either. [NP] had to do some public relations, ground breaking things and [NP] has had times when it's been frustrating.

Pharmacists would call requesting clarification of the prescriber. Frequently medical specialists would address a follow-up letter to one of the FPs instead of to the NP who had made the referral. As well, results of lab and diagnostic tests ordered by the NP were sent to the FPs, instead of to the NP who had ordered the tests. Unfortunately, the NP's introductory letters did not prevent some medical specialists from refusing referrals from the NP. Participants related how the specialists' refusals created problems for patients who went for an appointment only to be advised that they (patients) could not be seen because they did not have a physician.

To complicate matters, during the first six months after the NP became fully registered, and no longer held provisional registration, medical specialists had difficulty billing for the NP's referrals as explained by this participant:

There was a big issue, a very difficult issue of MSP (medical services plan) coding that deals with consults. There is a specific code that gets put in so that the consultant can be paid. This specific code has to go into MSP in order to process it appropriately and the NP code kept getting rejected by MSP. That took a very long time to resolve and it is only just now (May 2009) getting resolved.

The medical service plan attaches a specific number to each provider. The provider's number is used by medical specialists to bill for consultations. Without this number, the consulting physician cannot bill for the office visit. This meant the specialist physician would not be paid by the medical service plan for seeing the patient referred by the NP. In the beginning, when the NP first started referring to medical specialists, the NP's number was repeatedly rejected by the medical service plan. Rejection of the NP's

number by the medical service plan generated phone calls to the NP's office asking for clarification. Subsequently, the health authority manager became involved and sent letters to medical specialists' offices advising them that it was within the NP's scope of practice to refer patients and that medical specialists could bill for the referral. The letter also included the NP's appropriate billing number. Although the difficulty with the billing number created minor disruptions for the NP, once the medical specialists realized they would be paid for referrals from the NP, their willingness to accept referrals increased. Over the course of the two years after the NP was hired the number of refusals decreased as medical specialists became more acquainted with the NP and gained a better understanding of the role. One participant related:

As time has gone on, they now recognize [NP's] name. They may not know [NP] personally but they know the name and it's okay.

In addition to medical specialists and pharmacists being unaware of the role, without a public announcement of the NP joining the team, people who were patients of the practice were also unaware of the role. Consequently, patients requesting appointments who had not been exposed to the student NP were unaware of the NP's existence. As previously mentioned, patients of the retired FP were left without a provider. As those patients called for an appointment, the scheduling staff would offer the patient various options: they could go on a waiting list for an FP, move to another practice, be seen in a walk-in clinic, or schedule an appointment with the NP. Staff would openly encourage patients to schedule an appointment to meet the NP and decide whether or not they wanted to continue to see the NP.

Most people had a choice. They could come here and see [NP] and build a relationship with [NP] or could find another doctor in the community, or they could go to the walk-in clinic.

A number of patients scheduled an appointment with the NP, while others chose to wait for an FP.

Manager Involvement. As an employee of the health authority, the NP sought assistance from the health authority manager as well as the practice's business manager for solutions to issues relating to community stakeholders, navigating the organization, and how best to proceed with establishing a practice. The health authority manager assisted by ordering and purchasing office furniture, an examination table, and supplies for the NP's office that also doubled as an examination room. Although initially the health authority manager changed several times, once there was stability in the position, the health authority manager facilitated implementation in several ways. A participant described the health authority manager's role:

The health authority manager continued to work on ensuring letters went out to the medical community, advocating for the role at the NP steering committee, the CEO, and executive medical director levels. The manager had to address the implementation of the new computer network to make sure that the nurse practitioner was part of it and in the right spot to capture nurse practitioner data and recognize the nurse practitioner as providers. It wasn't only the most responsible physician but also the most responsible practitioner who needed to be recognized by the computer system so that it is the nurse practitioner as well as the physician that can go into that box which is very important.

The manager made sure the NP could access the electronic medical record as a provider and tended to issues such as making sure that results of diagnostic tests ordered by the NP were sent to the NP. Early in the implementation process, employees of the health authority's laboratory were unfamiliar with the NP's scope of practice. Therefore, results of diagnostic tests were returned to a physician instead of the NP. The health authority manager facilitated the laboratory manager's understanding of the NP's scope of practice

so that test results were returned to the NP. One participant described the manager's role as:

Trying to figure out how to best meet everybody's needs and still ensure that the patient gets the test and the nurse practitioner has the information needed to manage the patient.

The health authority manager's role provided support for the NP so the NP could focus on providing patient care.

Acceptance. The NP in the fee-for-service practice spent a substantial amount of time in the setting as a student NP. Because the NP student worked closely with other members of the team, team members had an opportunity to get to know the NP personally, establish relationships, and build trust prior to the NP being hired. FPs were able to influence and witness the NP's abilities, knowledge acquisition, and skills by serving as preceptors to the NP as a student. One participant related this exposure to the NP as a student:

I think part of it was as a student, they knew [NP student], they grew with [NP student], they trained [NP student]. They understood where [NP student] was coming from, where [NP student] weaknesses were if any, and how [NP student] asked questions. A trust formed and therefore it evolved. Now if we had not had that, I do not think it would have been as easy, honestly. I think it would have been harder.

Getting to know the student NP contributed to team members' acceptance of the role and the FPs' willingness to partner with the health authority. Participants commented that had the NP not been known to them as a student, the implementation might not have gone as smoothly as it did. Indeed, there might not have been interest in partnering with the health authority if it were not for the experience with the student NP. Participants described the NP as "a good fit".

I think part of the benefit for us was that the nurse practitioner in our clinic now was a student here. Everybody got comfortable with [NP] long before the pilot project began. In that sense we were very fortunate in that everybody knew each other and it was an easy fit because the role was more or less defined before [NP] was hired.

The attributes of the NP as a student set the tone for how early relationships developed between the team and the NP. Several participants commented favorably on the NP's willingness to answer questions, come up with solutions to problems, as well as approachability and awareness of when to seek help and ask questions.

Prior to the exposure to the NP as a student, the team was not familiar with the NP role and no one had previously worked with an NP. The NP's placement as a student in the setting directly influenced the team's knowledge and understanding of the role. The team knew the NP personally and was willing to collaborate and consult with the NP. All members of the team may not have completely understood the capabilities of the NP or how the role would function in the setting, but they were willing to work together to gain clarity of how best to implement the role. One participant described acceptance of the NP:

In this setting, [NP] is supported by all of the physicians. If [NP] has questions they are happy to answer them. If [NP] needs coverage because [NP] is away, they're willing to cover. The other support staff in the office is also accepting.

Within the setting, the NP was accepted by the team; however, acceptance in the community was more problematic.

Community Acceptance. Although working with the NP as a student facilitated the development of relationships within the fee-for-service practice, other community providers did not have the same opportunity to get to know the NP in this way. Once the NP was hired, some community providers needed to acquaint themselves with the NP's

scope of practice, competencies, and capabilities before accepting the NP as another health care provider. Others, such as physiotherapists and chiropractors, who received the NP's introductory letter, contacted the NP directly to express their support as described by this participant:

The physios, chiropractors, laboratories, and pharmacists were accepting. The pharmacists realized when [NP] sent the letter out that [NP] was a new nurse practitioner. Several of them called to introduce themselves and said that [NP] could call them any time. Very accepting of the role and that has continued. In the beginning every time the NP wrote a prescription, people would call the clinic and say, "who's that?" They get it now. For any other nurse practitioner that comes into this community the road is probably going to be much easier, which is great.

According to the participant, after almost two years of being in the community the role was accepted by medical specialists and fewer calls came into PHC 1 asking for role clarification.

Similarly, patients who were unfamiliar with the NP role were encouraged to see the NP when they called for an appointment. Patient acceptance of the NP occurred over time after they had been exposed to the NP as this participant described:

I would encourage patients to see the NP for the first time by saying "[NP's] pretty good, why don't you give [NP] a try. If you don't like [NP] then we can give you a temporary physician until we get more physicians." Some patients decided to give it try and they were pleased and didn't want a new doctor.

As a result of team members encouraging patients to see the NP, patients were exposed to the NP and accepted the NP as their care provider.

NP Role Enactment

Originally the health authority had expected that by hiring an NP into the fee-for-service setting the NP would assist in the care and treatment of patients with chronic diseases. Thus they expected that the NP would spend the majority of time providing direct patient care. NPs in BC are expected to enact clinical competencies, as well as

other competencies of advanced practice nurses. Advanced practice nursing competencies described in CRNBC's competencies document, developed in 2003, include providing clinical care, consulting and collaborating with others, utilizing and participating in research, functioning as a change agent, and demonstrating leadership skills. During my interviews with NPs I asked them to describe how they were enacting all CRNBC competencies (Appendix E). In PHC 1, the NP's ability to enact all role competencies and capabilities was influenced by how well others understood and accepted the role. A participant described how the health authority originally envisioned the NP's role:

It was mostly set up around chronic disease management, enhanced services for our chronic disease patients. Motivational things, such as how to get blood sugars under control, that was difficult to manage in 10 minute visits every month or two.

Whilst others conceptualized the NP role as consisting mainly of clinical practice, the NP's description of the role demonstrated how the role was fully enacted. According to participants the NP used evidence to inform practice; consulted frequently with others, including medical specialists; and demonstrated leadership in clarifying intentions and redefining the patient population as described by this participant:

[NP] unfolded the role in every way. [NP] took a leadership role in asking what the physicians wanted the NP to do. The question was posed to the health authority manager, "what is [NP] supposed to do?" The response was "Well it's a combination, primary health care and chronic disease management." What does that mean? "It means whatever the clinic wants it to mean." The role is still unfolding, it does not look like it did 18 months ago or 12 months ago.

The NP willingly assumed a leadership role in clarifying role expectations; however, as a newly graduated NP and a novice in the role, the NP was also learning how to enact other NP role competencies. The NP needed guidance in how best to enact the role and how to interpret the health authority's intentions for it. Owing to the initial

turnover in the health authority managers to whom the NP reported, there were times the NP felt alone and unsupported by the health authority. Furthermore, there was no one in the practice setting who fully understood the role and the expectations for implementation. These factors combined to contribute to the NP's uncertainty of how best to move forward in the role. Fortunately, eight months into the implementation process, a health authority manager was hired who provided consistency and guidance for the NP. As well, once the NP's population of patients was identified and agreed to by the team and the health authority, the NP began to gain confidence and clarity of role responsibilities.

Initially as an NP with provisional registration, the NP needed to consult with FPs who were involved in mentorship and supervision. During this time the FPs also had to sign all of the NP's orders, requests for consultation and referrals, and prescriptions. After becoming fully registered, the NP no longer required supervision and co-signatures from the FPs. The NP became an autonomous provider who collaborated with others such as medical specialists and home and community care nurses. One FP and the NP began to collaboratively provide specialty care for patients with impaired renal function. Together, the two began to provide consultation to other FPs in the practice and the community to assist in managing these patients as this participant related:

Well I think the biggest collaborative thing would be between [NP] and [FP] and the chronic kidney care. That has given [NP] some real focus. Particularly into chronic disease management and a patient pool to see on a regular basis.

The NP used evidence to inform practice and made an effort to stay current with practice guidelines. The NP utilized provincial guidelines to manage patients with chronic diseases. Several participants commented that as a result of the NP's practice,

others had become more aware of updates to practice guidelines and had incorporated recent evidence into their own practices.

The NP also emphasized health promotion and prevention; this resulted in others paying closer attention to the need for health screenings, especially for renal function. Patients who were recently diagnosed with a chronic condition such as diabetes accessed the NP for health teaching shortly after being diagnosed as this participant explained:

New diabetics would get home nursing as well as the diabetic teaching at the hospital. I mean they still get that, but there is a quicker response with [NP] being here.

This expedited the patient's understanding of the disease and how to become involved in self-care management.

Several participants commented that the NP spent time with patients providing health information and teaching.

[NP] has more time to spend with the patients and do the teaching than the doctors have. [RN] does not have the time because of the way their work situation is and the way the RN's workload is at this time. [NP] can spend time with the patients as opposed to the doctors who scurry them out and they not understanding because the doctor has used terminology that they don't understand. [NP] can also have more of a one-on-one relationship with the patient than nurses have. The difference is that [NP] focuses on health promotion or disease prevention. Patients who were coming in for appointments every two weeks are now seeing [NP] every three months.

According to one participant, because patients cared for by the NP were active in self care and had control of their chronic conditions such as blood pressure they were able to schedule appointments every three to six months. During my interview with the NP, I asked about time spent with patients. The NP indicated that, as a rule, follow-up visits lasted between 20 to 30 minutes. Patients new to the NP's practice had longer visits.

Community of Practice

According to participants, in October 2007 the health authority began efforts to create a community of practice in which all NPs were members. The purpose of the community of practice was to provide a place where NPs could bring issues related to implementation, get to know each other, and begin to develop collaborative relationships among themselves. A participant described the community of practice:

The community of practice is a huge amount of support. It meets monthly and the NPs email back and forth quite frequently. They all have each other's contact information for phone numbers and areas of interest. If someone has a particular clinical issue they know who to call. That support structure is quite a nice thing.

At the time of the interview (April 2009) the community of practice had been in existence for approximately 18 months. The NP was also able to obtain peer support from other NPs employed by the health authority. The NP related that being able to contact another NP in the community of practice was a great source of support. However, in the first eight months after the NP was hired and struggling to define the role, the community of practice was not in existence.

Perceived Outcomes of NP Role Implementation

Participants related that the NP was able to have impact in the practice setting in several ways. As a result of implementing the NP role, they perceived that management of patients with chronic diseases was enhanced, that the NP had maintained access to care and prevented patients from leaving the practice after the retirement of one of the FPs, and that there was more emphasis on health promotion by all providers, especially screening for chronic kidney disease. Participants also perceived that patients cared for by the NP were more involved in self-care management, their conditions were more stable, and they had a better understanding of their chronic health conditions. Other staff,

especially the nursing staff, believed the NP had influenced their awareness and knowledge of current practice guidelines.

[NP] was a good resource to the nursing staff. [NP] is a boost to the nurses and getting [nurses] back on track and focusing on things more, whereas [nurses] used to let things slide, well not slide, but put in the background because [nurses] did not have time for them and making the nurses realize that they need to upgrade or read and that sort of thing.

The intent of this study was not to evaluate outcomes of NP role implementation and no data were collected to validate these perceptions.

In summary, almost two years into the implementation process, the NP in the fee-for-service setting was able to enact all CRNBC competencies for NPs to some degree, the role was accepted by others, and the NP was becoming integrated not only into the practice setting but also into the larger community. Evidence of this integration within the larger context was demonstrated by acceptance of referrals by medical specialists, pharmacists recognizing the NP's name, and other providers being willing to consult and collaborate with the NP. Getting to that stage took time, and in the beginning, unclear expectations, changes in managers, and inexperience with the role contributed to the complexity of implementing the role. At the time of the interviews, participants were unsure of the future of the role because the contract with the health authority was expiring and no team member seemed to know the health authority's long-term plans.

Relating Findings in Fee-for-Service Setting to Propositions

Findings from the analysis of this sub-unit support the proposition that clearly identified intentions for the NP role by managers, physicians, other staff, and NPs influence the process of NP role implementation. After the NP was hired there was a need for the team to clarify intentions for the role. They needed support from the health

authority manager to more clearly define intentions for the role, especially when the original intent for the NP was disrupted after the unforeseen retirement of one of the FPs created a change in the patient population for whom the NP provided care.

The proposition that greater involvement of key stakeholders, such as managers, physicians, other staff, and NPs influences the success of the process of NP role implementation is also supported. The team had limited involvement in early discussions of role implementation; however, after the NP was hired team members became involved in helping community providers to better understand the NP role. This involvement facilitated the implementation process.

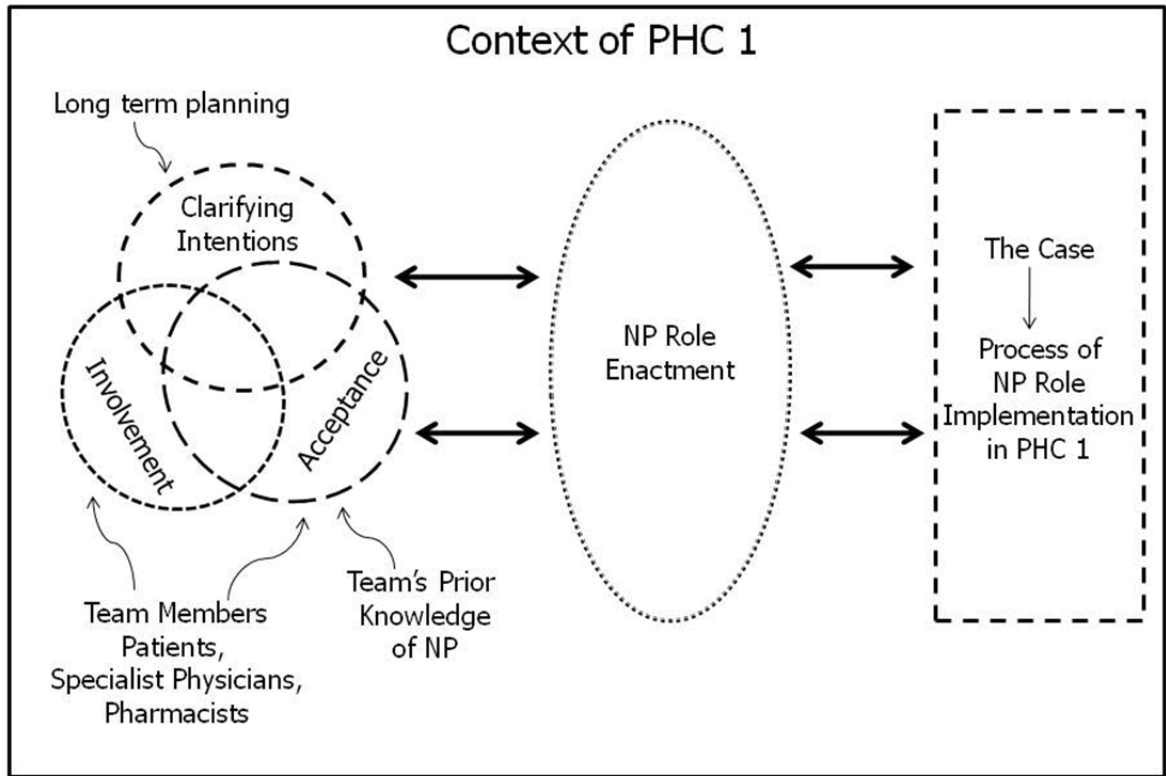
These findings also support the proposition that high levels of acceptance of the NP role by managers, physicians, and other staff positively influence the process of NP role implementation. The team was aware of the NP role before the NP was hired because of the NP spending time in the setting as a student NP. Knowing the NP as a student facilitated their acceptance of the NP as an individual. After the NP was hired, team members helped other community health care providers to understand the role and this in turn facilitated their acceptance of the NP role.

Finally, the proposition that involvement and acceptance of managers, physicians, and other staff in the implementation process and clearly identified intentions for the NP role influence the ability of the NP to enact all role domains is also supported. Involvement and acceptance of the NP by team members and other health care providers in the community influenced the NP's ability to refer patients to medical specialists and write prescriptions for pharmacotherapeutics. The team needed to clearly understand how the NP would function in the setting in order to identify a patient population for whom

the NP would be responsible. The team's acceptance of the NP allowed the NP to fully enact all competencies of the role which included leadership, collaboration and consultation, utilization of research, and functioning as a change agent.

In Figure 9, I demonstrate how the concepts of involvement, acceptance, and intentions overlap and simultaneously influence how the NP enacted the role and implementation in PHC 1. Figure 9 also demonstrates additional attributes of each of the concepts. These include the need to involve and gain acceptance from community providers and clarify intentions for the role. Clarifying intentions occurred as the team identified a patient population for whom the NP would provide care. Long-term planning for the role also needed to be clarified so that team members could plan for the future of the NP in the setting. Prior knowledge of the NP contributed to acceptance of the role by team members.

Figure 9. Evolving Conceptual Framework: PHC 1 and Interrelated Concepts

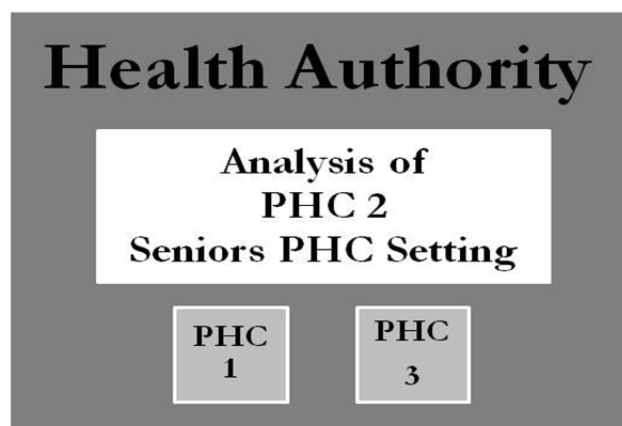


This version of the conceptual framework differs from Figure 4 in Chapter 3 and indicates the evolving nature of the framework as data were analyzed. The concepts now overlap and are represented by broken lines indicating permeability between the concepts and the context of PHC 1. There is a reciprocal relationship, as demonstrated by the two-way arrows, between the concepts and role enactment and between role enactment and implementation indicating how the concepts influence NP role enactment and implementation.

PHC 2: Seniors PHC Model

Figure 10 identifies PHC 2, the seniors PHC setting, as the focus of this analysis of the second of the three sub-units in this single case study. PHC setting 1 was previously analyzed and 3 will be analyzed later in this chapter.

Figure 10. PHC 2 Sub-Unit: Seniors PHC Setting



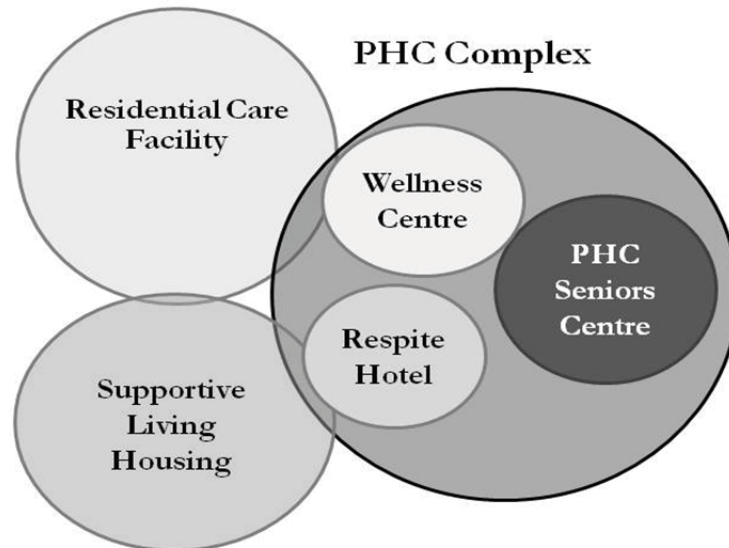
Context of the Case. PHC 2 was a seniors PHC centre providing care for adults 70 years of age and older located in an urban area of approximately 100,000 people. The centre was established in 2003 under the health authority's Health Services Redesign Plan and partially funded through Health Canada's Primary Health Care Transition Fund. When first established, the centre's targeted population was people aged 55 and older. According to one participant, in January 2008, a directive from the health authority increased the age of the target population from adults 55 years of age and older to adults 70 years of age and older. The change in age of the population was the result of one of the health authority's organizational goals to improve the health of high needs

populations, such as seniors over 70 years of age. As a result of adding an NP to the team, managers of the health authority anticipated that the NP would provide additional support to the multidisciplinary team responsible for caring for older patients with more complex care needs.

The mandate of the health authority's Health Services Redesign Plan was to restructure services and programs to improve the health status of vulnerable populations, one of which was the frail elderly. One strategy to improve the health of older adults was to create a new complex that would offer multiple health care services including residential care, supportive living housing, a respite hotel, wellness centre, and PHC centre.

The seniors PHC centre began in a small office while awaiting the construction of the larger facility in which it currently resides. The office and staff relocated to the new facility March 2006. All programs housed within the complex offered services to older adults living in the community and their family caregivers. The residential care facility is adjacent to and separate from the PHC centre. The supportive housing units are located on the second floor, above the PHC centre. In the building where the seniors PHC centre is located, there is also a wellness centre for seniors and a respite hotel. Figure 11 provides an overview of the organizational structure of the complex in which PHC 2, the seniors PHC centre was co-located.

Figure 11. Primary Health Care Complex's Organizational Structure



According to the project charter of PHC 2, the goal of the project was to implement a model of care that would provide interdisciplinary PHC services for at least 4500 community dwelling adults living within a designated catchment area of the city. If successful, the health authority would use the model as a template for PHC services in other areas. The project, as submitted for funding through the Primary Health Care Transition Fund, ran from January 2003 to March 31, 2006. At the end of the demonstration period and at the time of this study, the health authority expected the centre to be self-sustaining through funding from the health authority's general budget, the MOH, private donations, and funds received through billing the medical services plan for care provided by physicians who contracted with the seniors PHC centre. PHC 2 is the seniors PHC centre and does not involve other facilities or services within the larger

complex. However, I will briefly describe the two other programs co-located in the same building.

According to the wellness centre's website, the centre provides health education and social support for seniors and caregivers living in the community. Educational programs are offered to groups of community dwelling seniors and include self-management of diabetes, a continence clinic, coping with chronic diseases, and the role of the pharmacist as a resource to self-care. Various providers present the programs; for example, a diabetic nurse educator discusses how to manage diabetes and a pharmacist speaks about the role of the pharmacist. All educational programs are held in the wellness centre. Seniors come to the wellness centre to attend programs. The centre also offers a bathing program for seniors unable to bath themselves in their home. There are no home visits made through the wellness centre.

According to the respite hotel's website, the hotel offers services to seniors living in the community who require moderate assistance with activities of daily living and who have caregivers providing ongoing care. Seniors can stay in the respite hotel to allow caregivers time to rest and recuperate from providing continuous care within the home. Seniors are able to self-refer to the programs offered by the wellness centre and the respite hotel. Patients of the seniors PHC centre (PHC 2) can participate in programs offered by the wellness centre and take advantage of the respite hotel. Community dwelling seniors who are not patients of PHC 2 are also eligible to take advantage of the services of the wellness centre and the respite hotel.

Although co-located under one roof, the three programs function independently. As demonstrated in Figure 11, there is a separate organizational structure for the seniors

PHC centre and the other two programs. Each of the three programs has separate staff and is funded independently of each other. In this study, I did not include staff from the wellness centre or the respite hotel because the NP only practiced in the seniors PHC centre.

The lobby entrance for the seniors PHC centre was spacious, bright, and multifunctional. The patient waiting area and the reception desk were located in the lobby area. A wall separated the main lobby waiting area from the clinical work area of PHC 2. Staff from the seniors PHC centre ushered patients with appointments from the waiting area down a wide hallway into the clinical work area. Extending from the hallway were seven spacious examination rooms, along with a common room used by the FPs, NP, and nurses for charting and case conferences. The FPs used four of the examination rooms, the NP used one room, and the nurses used two rooms. Two meeting rooms and offices for the manager and the staff coordinator were located in the same general area.

Data Sources. Participants from the seniors PHC centre included an FP who had been practicing in the setting three years, a medical office assistant who had worked in the setting for five years, the staff coordinator who had been a health authority employee for 24 years, the manager who was hired in 2006, NP2 who no longer worked in the setting, and NP3. The FP, medical office assistant, and staff coordinator were employed in the centre when all three NPs were hired. All participants completed one face to face interview with the exception of NP2, who was interviewed by telephone. Each interview lasted approximately 60 minutes. This case was the only one to have NP turnover and provided me with an opportunity to learn more about problems associated with

implementation, which I discuss in more detail later, by interviewing the NP who had left most recently (NP2).

Documents included in data analysis were the project charter, the health authority’s NP role description, and the CRNBC competencies, scope of practice, and registration documents. The project charter provided background information about the intent of the seniors PHC centre, the interdisciplinary team and mandates of the centre. Electronic websites provided information related to the services offered by the wellness centre and the respite hotel. Primary sources of data were the interviews and the documents. Table 8 summarizes all sources of data collected in PHC 2.

Table 8. Data Sources for PHC 2

Data Sources	Interviews	Documents Reviewed
Manager	1	Project Charter Health authority’s NP role description CRNBC Competencies, Scope of Practice & Registration Websites for Wellness Centre & Respite Hotel
Physician	1	
NPs	2	
Other Staff	2	
Total Interviews	6	

NP Registration. This setting experienced instability in the NP position and difficulty with early efforts to retain an NP. Prior to this study, two NPs had been briefly employed in PHC 2. One of these and the current NP participated in this study. For the purpose of clarity in my analysis, I designated the three NPs as NP1, NP2, and NP3, referring to the first, second and third (current) NP who practiced in the seniors PHC centre. There was variation in the registration process among the NPs. What follows is a description of each NP’s registration process. I discuss participants’ perceptions of implementation efforts related to the three NPs later in the analysis.

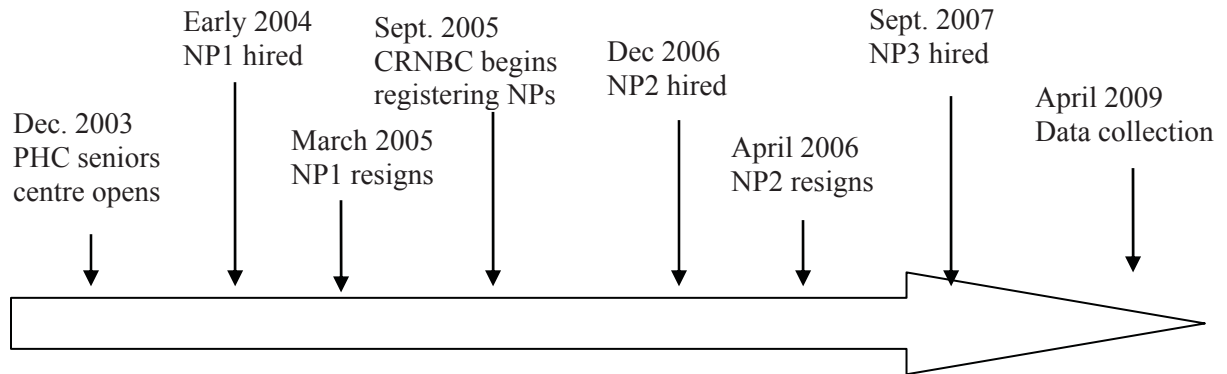
NP1 was hired by the health authority to work in PHC 2 in 2004. According to participants, before moving to BC, NP1 completed an NP program in another province, though they were unaware of the type of program (post-baccalaureate or graduate) and were unable to recall if NP1 was registered outside of BC. Although CRNBC had approved competencies for NP practice and the scope of practice for the role in October 2003, the legislation for the NP role and registration of NPs did not begin until 2005. Thus the timing of NP1's hiring and relocation to BC predated the establishment of the CRNBC registration process. Therefore, although participants referred to NP1 as an NP, this person's registration was, in fact, that of an RN. NP1 resigned from the position in March 2005 before obtaining NP registration.

NP2 was hired in December 2006, shortly after completing a Master's level NP program in BC. NP2 first began to practice in PHC 2 with provisional NP registration. With provisional registration NP2 needed an FP or registered NP to sign all prescriptions, orders for diagnostic testing, and referrals. NP2 completed the American Nurses Credentialing Centre examination in November 2006, the OSCE in January 2007, and became fully registered in March 2007. NP2 remained in the setting for approximately four months, and was fully registered for the last of the four months. NP2 resigned in April 2007.

Similarly, NP3 was hired in September 2007, also shortly after completing a Master's level NP program in BC. NP3 held provisional NP registration from September 2007 until April 2008, after completing both registration examinations. Until April 2008, NP3 also needed a supervising FP to sign all prescriptions, orders for diagnostic testing,

and referrals. At the time of this study NP3 was practicing in the setting. Figure 12 provides a timeline for the time each NP spent in the setting.

Figure 12. Timeline for NPs in PHC 2: Seniors PHC Model



Model of care. In this setting the model of care was multidisciplinary in nature and designed to serve adults 70 years of age and older. The team was comprised of four FPs who were each in the setting approximately 20 hours per week, one NP, two RNs, two medical office assistants, the manager, and the director of staff services. The manager participating in this study joined the health authority in September 2005, specifically to manage the centre. One FP functioned as the medical lead and liaison to the manager. With the exception of the FPs, all team members were employees of the health authority. PHC 2 received base funding to provide care to its targeted population from the health authority. The funds for the NP position were not included in the base funding, instead the NPs salary was part of the funding provided by the MOHS for NP positions in 2005. FPs contracted with the health authority and were reimbursed through an alternative payment plan.

All FPs worked part-time in the centre and at the time of this study, there had been recent turn-over of some of the FPs. Community-based providers with whom the

team regularly consulted and collaborated were social workers, home care nurses, and mental health workers who were also employees of the health authority.

The health authority devised the plan for implementing an NP in the seniors PHC centre. Many participants related that from the inception of the seniors PHC centre there was an intention to include an NP in the multidisciplinary team of providers. This may have been participants' expectation, but the intent to include an NP was not stated in the wording of the project charter. The charter referred to care provided by a multidisciplinary team and listed FPs and nurses as team members.

Several participants had worked in the setting from the time PHC 2 was established in 2003. They witnessed each attempt to implement the NP role and spoke of how their understanding of the role grew from the time NP1 was hired to the hiring of NP3. Participants acknowledged that many factors contributed to the turnover, including lack of regulation, misunderstandings among team members as to how best to implement the NP role, and placing the NP in the setting without consultation with other team members. I discuss the process of hiring the NP later in the analysis.

Intention. NP1 was hired in 2004 shortly after the seniors PHC centre opened in December 2003. Participants remarked that when the seniors PHC centre first opened all team members were new to working together and they had to learn their role and become acquainted with each other. NP1 joined a team that was forming and the roles of all team members were unclear, and no one, including NP1, understood how best to use the NP role. The impetus for hiring NP1 came from the PHC 2's manager who, according to participants, had been involved in initial provincial efforts to determine the most appropriate manner to implement the NP role in BC. Registration of NPs did not begin

until 2005, thus NP1 was unable to obtain NP registration in BC. Lacking legislation and regulation, it was difficult for the NP or the health team to understand fully the scope of practice or expectations of the role. A participant described this time as:

We were not really sure what to do with [NP1] and I'm not sure [NP1] was really sure what to do with us. [NP1] did a lot of paper work, initial patient interviews, and data entry. [NP1] did not stay with us very long.

The manager, who hired NP1, was no longer in the seniors PHC centre and participants could not recollect the rationale for why NP1 was hired before there was provincial registration and legislation supporting the role provincially. Participants recounted confusion over the most appropriate use of the NP's abilities and their lack of understanding of the NP role.

We didn't really know each other's roles. We didn't know what [NP1] could do. We didn't know what [NP1] could order you know diagnostic tests, if we could bill for [NP1's] services or if the FPs had to see everybody that [NP1] laid eyes on.

Without a provincial process for NP registration, NP1 was restricted to functioning as an RN. According to participants, NP1 performed many valuable functions, however, did not assess, diagnose, or treat patients as would be expected of an NP.

A participant comments on how NP1 functioned:

There was a lot of data stuff we needed done and there was no manpower to do it so it fell to [NP1] to do it and I think [NP1] resented that.

Some participants remarked that being unable to function as an NP contributed to NP1 resigning in March 2005 and leaving BC.

NP2. With the resignation of NP1, the team was without an NP until December 2006, over a year and a half. Approximately two weeks before NP2's arrival, participants became aware of plans for another NP at the seniors PHC centre. This came as a surprise

to team members because they were not anticipating having another NP. PHC 2 had recently moved into a new building and everyone was busy getting settled into the new location. Participants related that while they expected an NP to be part of the team they were surprised that they did not have an opportunity to interview the potential candidate before the NP actually started to work in the setting. One participant related the process as follows:

It was brought to our attention that we were going to receive a nurse practitioner who was coming to us out of the blue, so to speak. They had gone through a competition at a local clinic, there were two applicants. The other clinic chose candidate number two and so they decided candidate number one was coming here. We had no involvement in any of the processes that were related to hiring this person. [NP2] just came to us.

According to participants, a decision to place the NP in the seniors PHC centre was made by managers outside of the setting. The manager of PHC 2 and other team members were not consulted prior to the decision being made. Team members had no opportunity to interview or to get acquainted with NP2. They related that at the time NP2 was hired they were unaware of NP2's capabilities, skills, or needs for team support or mentorship as described by this participant:

Our FPs had history with the first NP. After [NP2] was hired the questions were raised by the team "how do we develop [NP2's] role? What are the expectations of [NP2]?" There was a lot of discussion around [NP2's] role with [manager]... we needed to clarify the expectations of the person coming into the role.

We needed to clarify the NP's and the FPs' expectations so you don't have barriers initially. But if you bring in new blood, team members won't know who the person is. Because the person is not known, the team has no experience with the new NP or his or her clinical judgment prior to starting here.

Similarly, NP2 had no knowledge of the team at PHC 2, and had no opportunity to become acquainted with members, or discuss role expectations before joining the team.

Having worked as an RN for many years in the health authority, NP2 was not new to the health authority, but was a novice NP, having recently graduated from an NP program. Many members of the team including the manager and several of the FPs were relatively new to the health authority and were unfamiliar with the NP role. Other team members, who had worked with NP1, who was not a registered NP, also did not have a clear understanding of the NP role.

All participants related that they were willing to work together to define how best to use NP2's abilities, but efforts to negotiate this process were stressful. The team drew upon CRNBC's competencies and scope of practice documents to better understand how NP2 could function, and after NP2 was hired, held several internal meetings that were facilitated by PHC 2's manager to discuss NP2's role. Participants related that initially there was no consensus of expectations for the role, and this contributed to the stressful environment. Team members turned to health authority managers outside of the setting for assistance, wanting to know the health authority's vision of the role, to understand organizational expectations, and to gain support in navigating the disruption the team was experiencing. A participant described efforts to understand the health authority's intention for implementing the role in PHC 2:

I kept knocking on [health authority manager's] door and saying what do I do in this circumstance? I'm really concerned with how this is proceeding. We need more structure here. We need more support. I want this to be successful. You know this candidate came in through the side door/back door ... and we want this to be successful. We needed more support from [health authority]. It came at the end of April, we had [NP2] for four months and we were just bumbling along doing our best.

In response to requests for clarification, a senior member of the health authority's administration met with the team at the seniors PHC centre to review the health

authority's intent for implementing NP roles and to respond to the team's concerns. Everyone remarked that this was very helpful, however, it probably occurred too late to resolve the tensions that had developed within the team. In April 2007, and shortly after the meeting with the senior health authority manager, NP2 resigned and accepted a position in a different health authority.

NP3. NP3 began in September 2007 shortly after completing an NP program. Prior to accepting the NP position, NP3 had spent 180 practice hours in the centre as an NP student and had worked in the seniors PHC centre as an RN for a year before being hired as an NP. The centre's manager and the lead FP were involved in the interview process to select another NP. The manager consulted with other team members as to their expectations of the role; however, the two RNs were not included in the interviews because one RN had been recently hired to the centre and the second RN was one of the applicants for the NP position. Participants believed the implementation of the role this last time was more straightforward, because the team had developed a better understanding of the role through the two previous efforts to implement it. In spite of this history with attempts to implement the role, after NP3 was hired, the team continued to need time to clarify intentions for the role as described by the following participant:

That I think is something we've been figuring out. It's a new thing and I see it as being an ongoing learning about how do we do things together and how do we do things differently? What's the ideal role for the NP? It's all intertwined with health care which is so fluid anyway, and what is the nurse practitioner's piece in this weave of the fabric, how does the nurse practitioner fit in? I not quite sure yet, we're working on that one.

Clarifying Intentions. The team expected the NP, as another provider, to increase access to care for patients. Although team members held these expectations, they were

unsure how this would occur. A participant recounted efforts to understand the CRNBC competencies and the scope of practice for NPs as follows:

I read through the many pages of the document that talks about an NP's scope of practice. I would have to say the scope of practice is very broad. I had an idea that a nurse practitioner could do all the well woman stuff; she or he could step in and do things that are not so complicated.

They used the CRNBC documents to understand the functions of an NP. Team members struggled with efforts to clarify the patient population for whom the NP would provide care and sought assistance from senior managers within the health authority. Participants related that several discussions were held among the team as they tried to decide the most appropriate patients for the NP to follow. Team members thought that the NP could follow seniors with chronic, stable conditions, and that the FPs would refer those types of patients to the NP. According to the project charter, the seniors PHC centre was established to provide care using an interdisciplinary team approach, yet some participants stated that they expected the NP to be the primary provider for a roster of patients.

We've tried a bunch of different things. I mean there was a time where the idea was that [NP3] would see less complicated patients, but for many reasons that's hard to do here because almost everybody's complex. So then you say, "well as new patients stream in are some appropriate for [NP3]?" I think we've said, "well if they're on medication that [NP3] can't prescribe it makes sense for the continuous relationship to be with someone else." So it's a work in progress I think.

None of the participants discussed a team approach to care, or how patients could be co-managed by a team of providers. In a fashion similar to a traditional primary care FP practice, participants believed patients should be associated with one provider for continuity of care. The original population served by the seniors PHC centre was adults 55 years of age and over. According to participants, shortly after NP3 was hired, a

decision was made at a higher organizational level in the health authority that new patients admitted to the seniors PHC centre would be 70 years of age and older. The more advanced age population was more complex. Determining which patients were appropriate for NP3 when all new patients being admitted into the practice were complex with multiple co-morbidities made it difficult to single out those patients who would be the primary responsibility of a newly graduated, novice NP. Team members attempted to use medication as a criterion to determine patients for whom NP3 should provide care. Patients on medications NP3 could not prescribe, such as controlled drugs or substances and those that NPs could not initiate, were assigned to one of the FPs.

Participants believed patients needed to be attached to a physician in case they were admitted to hospital. At the time of data collection the BC Hospital Act Regulation (1997) did not recognize NPs as one of the defined practitioners with the ability to admit and follow patients in hospital. Despite these limitations, participants, as well as other managers in the health authority, believed it was appropriate for the NP to have a roster of patients as related by this participant:

I think it is becoming increasingly clear that [NP3] should have [NP3's] own patients. It is good for [NP3's] relationship and continuity with patients. There is not an overarching plan to say exactly how that's going to happen.

Identifying an appropriate patient population for NP3 to follow, however, was not straight forward. One participant recounted efforts this way:

I would have thought we would really clearly define the patient population and we would populate this roster and be good to go. And instead, it's been more of a morphed process.

As a result of the perceived need for NP3 to have a roster of patients, NP3's patient roster grew due to the scheduling staff making appointments for patients with NP3 when the FPs' schedules were filled.

Let's say they call and the doctors are all filled up, the scheduling staff would say to patients "we have a nurse practitioner." They weren't keen on it in the beginning. We had a brochure explaining what they do, who they are (NPs). Patients were not very adaptable at the beginning. After that patients would continue to see [NP3] for a follow up in a couple of weeks or a month's time. We kind of slipped patients in to see the nurse practitioner. Some, who didn't get their choice of the FP they wanted, would settle with [NP3] and they were okay with it. [NP3] was there when the FPs were full.

Once patients had their first appointment with NP3, they would request follow-up appointments with NP3. The staff also encouraged new patients requesting appointments to schedule with NP3. Over time, and at the time of this study, this process resulted in NP3 becoming the primary provider for approximately 160 patients, representing 10% of the seniors PHC centre's patient population. Although the number of patients may appear low, all of the patients followed by the NP are complex, frail and elderly, many with multiple co-morbidities.

Defining the Role. As mentioned earlier, NP3 had worked in the centre as an RN and also spent time in the setting as a student NP. Participants had developed relationships with NP3, which was different from their experience with the two previous NPs. The team's exposure to NP3 as a student also contributed to their understanding of the NP role. As well, NP3 developed a flyer defining and describing the NP role for staff to give to patients. Participants found the flyer personally helpful and a useful tool for patients.

Participants related that they had a limited understanding of the NP role when they were exposed to NP1 and NP2. After working with NP3 for 18 months, they had

gained a better understanding. They had observed and worked with NP3 who was able to enact all aspects of the role as a fully registered NP without the restrictions of provisional registration. Participants used NP3 as an example of how to define the role. Many participants could best define the NP role through NP3's clinical competencies. They acknowledged that NP3 provided competent, comprehensive patient care. In addition, they recognized NP3's ability to see the "big picture". They remarked that NP3 identified patients in need of community resources and collaborated with all members of the team, as well as community agencies. A participant described NP3 in this way:

Reliable, knowledgeable, approachable, a very good asset to the clinic. [NP3] can order meds, labs, or anything that is urgent. If there were no FP here and [NP3] was the only one here I would feel very safe asking [NP3] to order whatever.

The above description also demonstrates that the participant trusted NP3's knowledge and judgment.

In this setting, team members' knowledge and appreciation for the NP role grew over time as they became more familiar with the role. The team was committed to successfully implementing the role and could see the value NP3 contributed to patient care. Participants acknowledged that earlier efforts to implement the role were influenced by the degree of the team's involvement in the process.

Involvement. Participants who were working in the seniors PHC centre at the time NP1 was hired had no involvement in the decision to hire the NP. They reflected that no one understood the role or knew how best to use the NP. Without NP registration, NP1 could not practice as an NP; consequently, this and many issues previously discussed contributed to NP1's decision to leave. The team was not involved in the decision to place NP2 in the setting and this was problematic for many participants.

The manager of the centre was notified approximately two weeks before NP2's arrival that an NP would be placed in the setting. Participants indicated that no member of the team had any previous knowledge or experience working with NP2.

The team wasn't involved in hiring [NP2]. [NP2] arrived. I'm not quite sure of the ins and outs of that but it was hard to get off to a really good start. And it wasn't a disaster by any means but it was just fraught with all kinds of little nuances. I think it was a difficult time for [NP2] too.

Several participants said that, with the short notice of the NP's arrival, there was no time to plan for the addition of an NP. Team members had not interviewed NP2; therefore, the team and the NP did not have an opportunity to determine mutual expectations for the role or fit between the NP and the rest of the team.

We all knew from day one there would be an NP. So it wasn't a surprise when [NP2] arrived. The way in which [NP2] came in was not particularly clear and in hindsight that made it even harder to accept. Somewhere along the way I think somebody's communication went a bit astray. And I don't quite know at which point that was.

Participants noted that they felt hurried to prepare for the NP's arrival. Letters introducing the NP to community stakeholders such as pharmacists and the hospital were quickly mailed out.

We put out letters to pharmacies, labs and others so that everybody was apprised that we now have a nurse practitioner and here's who [NP2] is and here are all [NP2's] numbers that you need to know for billing and things like that.

Participants related that they had recently moved into the seniors PHC centre and space had not been set aside to accommodate an NP. At the time NP2 was hired, there was no office or examination space dedicated to NP2. An office used by the FPs for dictating charts was reconfigured to provide workspace with a desk and computer for NP2.

Team Involvement. As noted above, the impetus to place NP2 into this setting originated at the organizational level. Participants indicated that, without early

involvement in the process of implementing the role, team members did not have an opportunity to determine appropriate patient needs, or how the NP would fit into the team.

I think initially we needed some communication at our level, at the worker bee level, as to what a nurse practitioner is capable of doing and expectations of the role. Instead it was, here you go, make it work.

Without engagement in the process, team members did not feel invested in the process. A participant expressed this sentiment:

I think it would have been different if we had been involved because we would have then acknowledged that this had been our choice. We had taken this on and we would have had greater buy-in to make it work.

These issues also contributed to the difficulty the team encountered as they attempted to implement a poorly understood and unexpected role. A participant reflected on the need to discuss assumptions about the role and find agreement and understanding prior to the role being implemented:

It is an understanding of the role and what it would look like. We all come with our own perspectives and our own assumptions. They need to be challenged before a new role comes in so that people can look at their assumptions and say maybe my assumptions aren't the way it should play out. I think all that negotiating between the professionals should occur before the NP comes.

Although the team was not involved in interviews and selection of NP1 and NP2, members were involved with the selection of NP3. Participants said that while early efforts to implement the NP role had been problematic, they all believed everyone learned from the experiences. Everyone wanted the role to be successful. In spite of this, participants also related that working together as a team to determine how best to use the NP was not easy. The team's involvement in determining appropriate patients for the NP, how to work with an NP, as well as how to function as a team was challenging and time

consuming. One participant expressed the challenge of working collectively to implement the NP role:

We all get so busy and we're just trying to deal with our own patient flow. So from that point of view I think it would be great to have more time. It's not like a practice where things have been rolling along for a number of years and everybody knows their role. It's very different from that. And it's great, but on the other hand it takes a lot of energy. And it's a challenge for all of us to find time and energy to do these things when you have a clinical practice that's very challenging.

Mentoring the NP. NP2 was introduced to other team members shortly after starting in the seniors PHC centre. Regrettably, NP2 began employment close to the Christmas holidays. According to participants, many team members were away for the holidays and were not present when NP2 was first introduced. In addition, many of the FPs worked part-time and were not present at the centre's monthly staff meetings. These two factors contributed to a delay in the FPs becoming acquainted with NP2.

NP2 held provisional registration from December 2006 until March 2007. During this time FPs were expected to mentor NP2 and sign all prescriptions, orders, and referrals. There was no additional compensation for mentoring NP2; however, the FP would bill for those patients NP2 saw. A participant described difficulty with the mentoring arrangement:

The patients [NP2] saw were complex. [NP2] needed a bit more time to sort them out and needed to talk with the doctors from time to time. There was a designated mentor, but all the doctors worked part time, if the NP had any questions [NP2] had to ask other doctors because the mentor was not there all the time. [NP2] had to interrupt busy FPs to ask questions, sometimes having to stand in the hallway until [NP2] could catch the doctor between patients. [NP2] had to sometimes wait through two patients if the FP was behind.

FPs were assigned to mentor NP2; however, if a particular FP mentor was away, which occurred frequently because of part-time status in the seniors PHC centre, the NP had to

call upon another FP to answer questions. Another participant remarked that because FPs shared the mentoring of NP2 it helped all FPs to get to know the NP, but it did not provide the consistency NP2 needed as a novice NP.

NP3 was known to the team and did not need to become acquainted with team members. Several of the FPs had mentored NP3 as a student in the role of preceptor. NP3 also worked in the setting as an RN. As a result of this familiarity with the context and team, NP3 was able to discuss personal learning needs and determine more easily how mentorship should best occur. NP3 held provisional registration from September 2007 until April 2008. After their experience working with NP2, FPs had a clearer understanding of provisional NP registration and how to work with NP3.

Manager Involvement. The manager of the seniors PHC centre played a pivotal role in supporting the team to gain understanding of the NP role and integrating a new NP into the team. Participants related that the manager facilitated discussions among team members to address interpersonal issues, as well as to support NP2 and NP3 by arranging for FPs to mentor them as new NPs. Once NP2 was hired, the manager worked with other team members to mail letters introducing the NP to community providers. A participant described the manager's support as:

[Manager] was really trying to understand it properly. [Manager] was the one who had all the role descriptions and everything. [Manager] did share them with staff and tried to welcome [NP2] and [NP2] felt that [manager] really tried to facilitate those introductions.

The seniors PHC centre's manager was supportive of NP2 and made efforts to ensure NP2 was able to enact the role. There were times when the manager also needed support from the organization to better assist the team's efforts to implement the role. As a new manager implementing a new role, participants indicated that the team required

more clarification of expectations than PHC 2's manager could provide. In order to obtain more clarity of how to implement the role, the manager went to senior health authority managers for support and understanding. A senior health authority manager responded by spending time with the team answering questions and clarifying the health authority's intentions for the role.

When [senior manager] talked to us about the nurse practitioner role and how it is so well suited to primary care clinics and a primary care environment, that was a good discussion.

Participants noted that the meeting with the senior health authority manager was very beneficial and facilitated the team's acceptance of the role.

Acceptance. It took time for team members to accept the NP role. Factors influencing acceptance included prior knowledge of the NP and the degree of team involvement in the process of implementing the role. NP1 and NP2 were new to the seniors PHC centre and were unknown to the team. Gaining acceptance for the role was more complicated because team members had little or no knowledge of it, they did not know how the NP was expected to function, and they had not previously worked with either of the NPs.

By the time NP3 joined the team, members had learned from their experiences with the other NPs. NP3 had an advantage over the previous NPs because of working in the centre as an RN and also spending time in the setting as an NP student. Participants remarked that NP3 was a good "fit" with the team, and identified that the previous NPs did not fit as well.

Having been through the experience twice before, [the manager] worked really hard to define the role and the FPs were more comfortable with that. The physicians were not as threatened as they were initially when [NP1] was here

because nobody knew what [NP1] was supposed to do. When [NP2] came, [NP2] had expectations...and it was a little tense. [NP3] was a good fit.

One participant described how prior knowledge of the NP facilitated acceptance this way:

[NP3] had been working here as a nurse. [NP3] had been on the team and it was out there that [NP3] was working on NP status and hoped to transition into a nurse practitioner role somewhere. As that came up we were quite aware of the timing and honestly I think that we all hoped that [NP3] would end up here. We knew [NP3] and very much respected [NP3's] abilities and enjoyed [NP3's] personality.

Previous knowledge of the NP facilitated the establishment of trust between the NP and the team and in the NP's abilities, knowledge, and judgment facilitated acceptance of the role. A participant voiced appreciation for the NP as follows:

I think by knowing and seeing [NP3] in action, by having [NP3] involved in team meetings, and seeing [NP3] with patients facilitated acceptance. Seeing and hearing the kind of questions that [NP3] asks to patients and preceptors. Seeing [NP3] studying for exams, and going through all the hurdles that [NP3] had to go through contributed to acceptance.

Participants were aware of the process NP3 went through to become registered as an NP, and this awareness contributed to their appreciation and acceptance of NP3.

Participants spoke about attempts to understand the role through the CRNBC competencies and scope of practice documents. NP1 and NP2 were new to the role and needed time to gain their footing as novice NPs and determine how best to enact it. NP1 could not register as an NP because there was no legislation at the time, and NP2 held provisional NP registration the majority of time in the setting. Both were unable to enact fully the role and as a result team members struggled to accept a role they could not understand. It was only after NP2 obtained full NP registration that members began to understand the role better.

The involvement of a senior health authority manager contributed to PHC 2 team members' enhanced awareness of the NP role's potential in the setting. NP2 left before the team could fully appreciate the role's full potential; nonetheless, NP2 provided the team with a glimpse of possibilities for the role. Subsequently, with the hiring of NP3, there was more openness and acceptance of the role.

As participants worked more closely with NP3, their acceptance of the role increased. They remarked that patients were satisfied with the care provided by the NP. A participant described a response from a patient that demonstrated satisfaction with the care provided by NP3:

“I have never had a better health care experience in all of my life. Please hire three more NPs like [NP3]” (patient's comment to a participant).

Patient acceptance and willingness to continue to see the NP contributed to team members' acceptance as well. A participant remarked:

The feedback from patients is inevitably positive.... [NP3] has a very good and comfortable relationship with patients. That makes it easier all round...that a good relationship is going on.

Attributes of the NP contributed to team members' acceptance of the role.

Participants remarked that NP3 had good ideas and worked collaboratively with all team members. As a result, the environment was stimulating for the team as they learned from each other and shared ideas about how to manage patients. Participants also remarked that because NP3 worked full-time and the FPs worked part-time, the NP could be relied upon to follow-up with patient issues that occurred during the course of a day. The team was confident and comfortable with NP3's capabilities. One participant described this confidence as follows:

We had a physician who left this past December 2008 and that physician referred a number of patients to [NP3]. [NP3] and that doctor had a very good collaborative working relationship learned from each other and the doctor would say, oh definitely, [NP3] can manage you.

NP Role Enactment

NP3 was able to enact all competencies of NP practice, including those of leadership, collaboration, change agent and research. NP2 did not have the same opportunity as provisional registration interfered with NP2's ability to enact all role dimensions. NP registration had not been enacted when NP1 was employed; this prevented NP1 from being registered and enacting the role domains.

NP3 described not only enacting the clinical competencies of the role, but other competencies of advanced practice nursing. NP3 assumed a leadership role by helping others to understand the NP role and its professional boundaries. Additionally, NP3 was supportive of the RN staff and shared knowledge with other team members. NP3 also offered suggestions for how to provide care differently. Participants remarked that there was increased emphasis on patient education about chronic health problems, and noted that NP3 was a strong patient advocate. NP3 assumed a leadership role in efforts to improve discharge planning for hospitalized patients of the centre. Efforts were put in place to follow discharged patients to reduce hospital readmissions. NP3 emphasized the need for the team to address efforts to keep patients in their homes and functioning independently as long as possible. Outside of the practice setting, NP3 demonstrated leadership by chairing the health authority's community of practice and participating in committees of the British Columbia Nurse Practitioner Association.

The competency of collaboration was demonstrated as NP3 partnered with patients and their families to manage chronic health problems, As well, NP3 regularly

collaborated with other team members, community pharmacists and nongovernmental agencies such as the Alzheimer's Society and Arthritis Society to provide patient care. NP3 reported that there was two-way collaboration with physicians and other team members who would come to NP3 to ask for assistance, just as NP3 would go to them.

NP3 functioned as a change agent by assisting with the implementation process after being hired, not only by helping others to better understand the role, but also by making changes to how care for patients with chronic obstructive pulmonary disease (COPD) was delivered. Furthermore, as a member of the community of practice, NP3 looked for opportunities to advance the NP role in the health authority.

NP3 acknowledged that, so far, there had not been opportunities to conduct any research; however, utilization of research informed NP3's practice. While not originating any research in the practice setting, NP3 participated in this study and two other provincial level studies of NPs.

Community of Practice

The community of practice was not in existence when NP1 and NP2 were hired, and began in October 2007 shortly after NP3 was hired. Although in 2009, at the time of this study, the community of practice was a support for NP3, this support was not in place in September 2007 when NP3 was hired.

Perceived Outcomes of NP Role Implementation

Participants noted that, as a result of implementing the NP role, there was more collaboration among team members, especially NP3 and RNs, and NP3 and FPs, and they found this increased level of collaboration satisfying, as expressed by a participant:

We do work collaboratively. We have a system where the nurses or [NP3] can definitely leave a little note on the FP's door asking, "can you come and see me

next?” And come in and ask FPs what they think or sign this prescription. Or just checking in about something or other and that has worked well.... There is a trust based relationship among team members.

According to participants, patients were satisfied with the care provided by NP3, particularly the continuity of care and stability of provider. With the turnover of FPs in the setting, NP3 was a stabilizer for patients who wanted to be able to see the same provider.

We've had a patchwork quilt of physicians. I think this has streamed more patients to [NP3] for obvious reasons. I don't know what it would have looked like if we had a really stable physician core. By default some patients have streamed [NP3's] way because they want a continuous provider.

Working jointly with a respiratory therapist, NP3 established group visits for patients with COPD. Group patient visits were also initiated with NP3 and a pharmacist to discuss medication management. Because of lack of registration and other issues previously discussed, NPs 1 and 2 did not have the same opportunities to demonstrate outcomes of care.

In summary, NP role implementation in the seniors PHC centre evolved over time beginning originally in 2004. These interviews took place in May 2009 and at that time NP3 had been in the position for 18 months. By that time, the role was fairly well understood by the team, and efforts were ongoing to improve the use of NP3's capabilities, knowledge, and skills. Unclear role expectations, lack of NP registration, absence of team involvement in early implementation efforts, and inexperience with the role all contributed to the complexity of implementation in this setting. Participants expressed trust and support for NP3 and some could see the need for additional NPs in the setting.

Relating Findings in the Seniors PHC Centre to Propositions

Findings from the analysis of this sub-unit supports the proposition that clearly identified intentions for the NP role by managers, physicians, other staff, and NPs influence the process of NP role implementation. Team members did not have a clear understanding of role expectations when NP1 and NP2 were hired and this lack of understanding led to confusion as to how best to use the NPs' knowledge and abilities. Although team members had a better understanding of expectations for NP3, after NP3 was hired there was a need for the team to clarify intentions for the role. Early in the implementation process, the team needed support from the health authority manager to define more clearly intentions for the role.

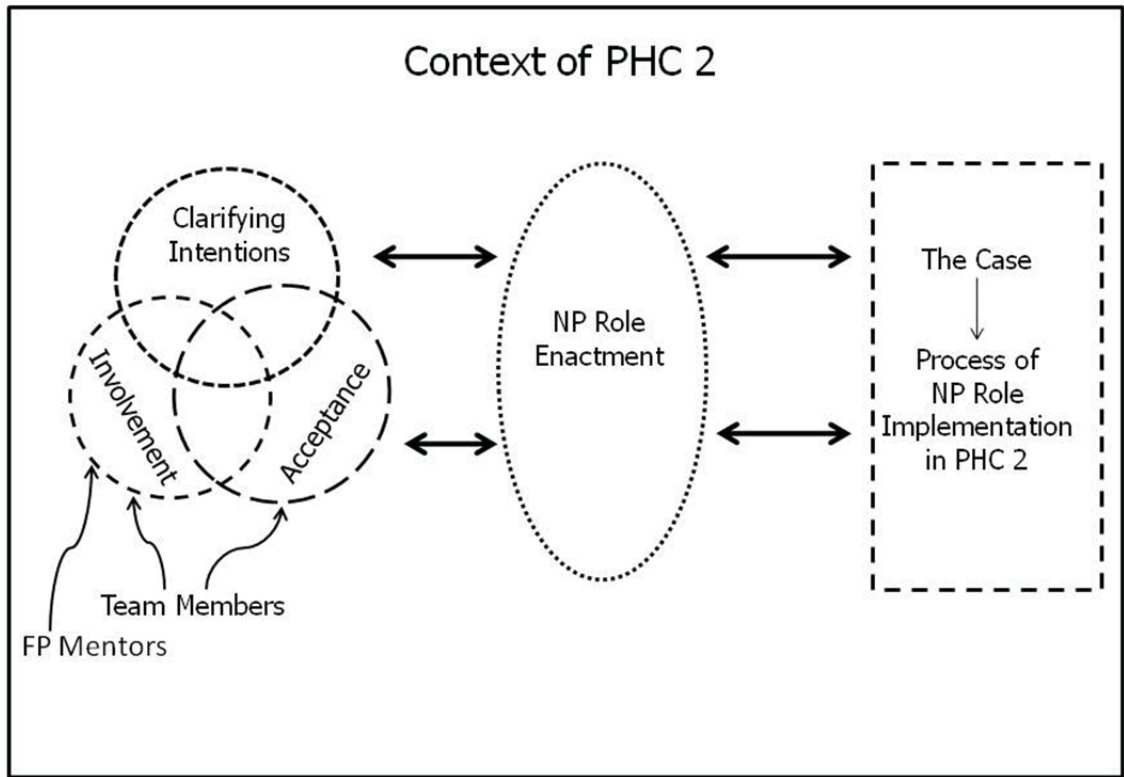
The proposition that greater involvement of key stakeholders such as managers, physicians, other staff, and NPs influences the success of the process of NP role implementation is also supported. Team members were not involved in the decision to hire NP2 and this omission contributed to difficulty implementing the NP role. Team members were more involved in the decision to hire NP3 and this facilitated the implementation process.

These findings also support the proposition that high levels of acceptance of the NP role by managers, physicians, and other staff positively influence the process of NP role implementation. The team was not involved in hiring NP2 and this contributed to lack of acceptance of the NP. Team members were acquainted with NP3, who had worked in the centre as an RN and as a student NP. Prior knowledge of NP3 facilitated their acceptance of the NP as an individual.

Finally, the proposition that involvement and acceptance of managers, physicians, and other staff in the implementation process and clearly identified intentions for the NP role influence the ability of the NP to enact all role domains is also supported. Involvement and acceptance of the NP3 by team members influenced NP3's ability to fully enact the role. NP1 and NP2 were not able to fully enact the role because of difficulties previously discussed. The team needed to clearly understand how the NP would function in the setting in order to identify a patient population for whom the NP would care. The team's acceptance of NP3 allowed NP3 to enact all competencies of the role to a degree, which included leadership, collaboration and consultation, utilization of research, and functioning as a change agent.

In Figure 13 I again demonstrate how the concepts of involvement, acceptance, and intention overlap and simultaneously influenced NP role enactment and the implementation of the NP role in PHC 2. Figure 13 demonstrates additional attributes of the concepts identified in my with-in case analysis of PHC 2. These include the involvement of FPs who mentored novice NPs and the need to involve and gain acceptance from team members. Clarifying intentions occurred as the team identified a patient population for whom the NP would provide care.

Figure 13. Evolving Conceptual Framework: PHC 2 and Interrelated Concepts

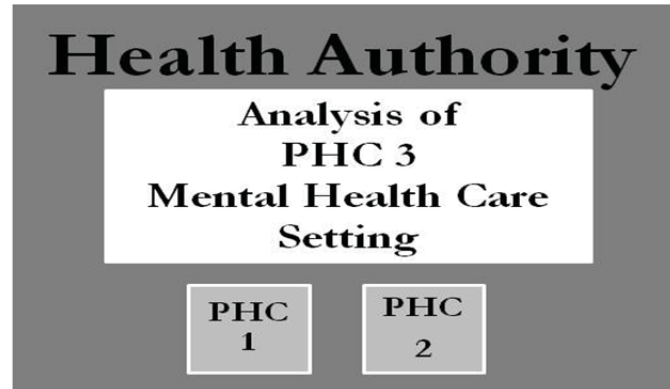


Although the overall framework has not changed significantly from Figure 9 to Figure 13, it demonstrates factors that influence the process and the evolving nature of the framework.

PHC 3: Mental Health Care Setting

Figure 14, identifies PHC 3, the mental health care setting, as the third of the three sub-units of analysis in this single case study. Analyses of PHC setting 1 and 2 data were described earlier in this chapter.

Figure 14. PHC 3 Sub-Unit: Mental Health Care Setting



Context of the Case. In its 2005-2010 Strategic Plan, the health authority identified seven strategic priorities, which included excellent service for seniors, increased numbers of integrated health networks, high quality and safe services, a safe and healthy workplace, sustainability, stakeholder engagement, and improved health for high-needs populations. High-needs populations included the frail elderly, the chronically ill, children and youth, the downtown/hard-to-serve, Aboriginal populations, rural and remote populations, and people who were mentally ill and addicted.

The health authority divided its catchment areas into North, Central, and South regions. In the North region the health authority identified mental health and addiction services as its number one concern. The mental health care setting (PHC 3) included in this study was located in a remote rural northern region of the health authority. The remote rural region was comprised of three small towns and three remote villages

covering 19,766 square kilometers with a combined population of 11,853 people. The villages were accessible only by boat.

The mental health care team provided care for patients with mental illnesses and/or substance misuse. Implementing the NP role in PHC 3 was one way to increase access to PHC for this patient population. It was expected that the NP would join an existing mental health care team that provided mental health and addiction services. In this way patients, who were primarily receiving mental health care from the team, would also receive PHC, that the existing team did not have the capacity to address. I discuss this model of care later in my analysis.

Mental Health and Addiction Services. The health authority's Mental Health and Addictions Services included prevention, treatment, and ongoing care programs designed to serve people of all ages who had mental illnesses and/or problems with substance misuse. The health authority recognized that approximately half of patients with mental illnesses also had substance misuse problems. All mental health and addiction services were intended to support patients to live as independently as possible, and to assist them to manage their mental illnesses. Mental health services included those delivered in acute hospital settings and in the community. The health authority provided team-based mental health care in what was described in its Strategic Plan as "health care without walls". Using a team approach, community-based care was provided where patients needed it the most. This included on the street, in supervised apartment living, and in other community agencies.

Mental Health and Addiction Services' prevention programs included information, training, and consultation services to FPs, schools, and other community

agencies to promote early identification of illness such as schizophrenia and bipolar disorder. Harm reduction strategies included sobering and assessment centres and street outreach services for patients who had mental health and addiction problems and who were homeless. Needle exchange programs and methadone clinics were additional harm reduction strategies the health authority provided.

Crisis and/or emergency response teams provided 24 hours a day mobile outreach as well as in emergency departments. Specialized psychiatric emergency services were available to safely resolve and stabilize crisis and emergency situations occurring in the community. Outpatient assessment and individual and group treatment provided by multidisciplinary teams were also available in community clinics on a referral basis.

Along with community-based programs, the team provided medically supervised in-patient assessment and short-term treatment in hospitals. Once discharged from hospital, patients with severe and persistent mental disorders requiring longer term treatment and rehabilitation could receive medical supervision and professional aftercare services 24 hours a day through case management. Case managers provided professional supervision for patients with chronic mental health conditions who lived in government supported housing so that they could achieve and maintain their best level of functioning in the community.

Although the health authority provided the comprehensive mental health and addiction services that I described above, not all of the services were provided in all communities, especially in small rural and remote communities. Patients in need of services not available in their home community would have to travel to the nearest facility for care. The mental health care team in PHC 3 provided the services above to

adults only. Mental health care services were provided to children and youth through the Ministry of Health's Children Services.

In its 2005-2010 Strategic Plan, the health authority identified that people living with mental illnesses and addiction concerns were a high-risk population. Following up on this strategic direction, the district manager for Mental Health and Addictions Services, located in the North region of the health authority, submitted a proposal in April 2006 to the NP steering committee to create an NP position. According to the proposal, the NP was expected to work with a team of mental health care providers and provide primary care to the patient population followed by the team. By adding an NP, the team could provide comprehensive primary care, as well as mental health services to their patient population.

In 2005, the health authority, in consultation with members of this remote rural region, had identified several service gaps that included PHC; chronic disease management; child, youth and family care; and mental health and addiction services. The municipal Strategic Plan for 2005-2010 for the town identified increasing theft, crime, and alcohol and drug use as problematic. Participants remarked that community members were open to opportunities for the health authority to improve mental health and addiction services, along with the other services identified.

The district manager's proposal was approved by the health authority's NP steering committee, and a full-time permanent NP position was allocated to Mental Health and Addictions Services in the remote rural region. The health authority advertised for an NP to fill the position beginning in April 2006, shortly after the position was approved, by posting the position on its website under human resources and

employment opportunities. According to the proposal submitted to the NP steering committee, the incumbent was expected to be a family NP, with no other qualifications, and recent graduates were acceptable for the position. The NP was expected to function as a member of the mental health care team and team members experienced in mental health would mentor the NP in the event the NP did not have mental health experience. The proposal listed the NP's primary responsibilities as physical assessments, prescription refills, treatment of minor acute conditions and chronic disease management. As a consequence of the remote rural region, there was difficulty recruiting an NP to the area and the position was not filled until June 2008, two years after the proposal was approved.

PHC 3 was located in one of the three small towns in the North region of the health authority. The township's population was approximately 3800 people, down from 4574 in 2001. The median age of the population was 38.9 years and 20% of the population was under 15 years of age. Three First Nations bands lived in close proximity. The town was accessible by a good highway, an airport, and ferry terminals. Most of the town, built in the 1970s, now had an aging infrastructure.

Historically, the community's primary employers had been mining, fishing, and forestry. The copper mine closed in 1995 resulting in the loss of 500 union jobs and 40 non-union jobs, along with other jobs in businesses that supported the mines. The forestry industry had suffered setbacks resulting from the Canada-United States softwood lumber accord. The unemployment rate was 11.8%, almost double the provincial rate of 6%.

The health services located in this town included a 12-bed acute care hospital with a 24-hour emergency department, public health, mental health, home and community

care, and primary care. The hospital provided adult inpatient and outpatient rehabilitation services, laboratory services, radiology and ultrasound, and residential care services. In addition to acute care services, the hospital provided a crisis stabilization bed for patients admitted with mental health issues. According to the health authority's Strategic Plan, hospitalization rates in the remote region were double the admission rates in other regions of the health authority and many hospitalizations were associated with mental illnesses and addictions. Medical specialists were located outside the community which meant that patients had to travel to another town for consultation with specialists.

Primary care services were provided by fee-for-service FPs who practiced in one of two medical clinics located close to the hospital. Each clinic could accommodate three or four FPs. The number of FPs in the community ranged from three to six depending on turnover, which was not uncommon. Patients frequently experienced turnover in FPs as described by this participant:

One client said to me on Thursday that she has had 11 different doctors in the last six years. There have been a lot of physicians coming through the community; some of them come from out of the country. I think they might be required to do a certain amount of time in a rural community. They come, do their time, and then move on to where they really wanted to be.

FPs had contracts with the health authority to provide on-call coverage to the hospital for admissions and to provide care in the hospital's emergency department. FPs referred patients to the emergency department for after hours care. Many people in the community were listed as patients with one of the two clinics. New patients were accepted into practices when the clinics were fully staffed with FPs; otherwise FPs would not accept new patients. A participant described how FPs attempted to accommodate patient needs as follows:

Most people were linked with one clinic or another and have a chart at one of the clinics, or at both. But that just means they have seen a doctor at that clinic at some time, and they may not be identified with one of the physicians working at the time. So at that time physicians were not able to take new patients and were just trying to deal with the patients that they had. They would see patients if they had a chart for prescription renewal and say “I can’t see you as a family doctor, you will have to wait until we have another family doctor”.

The mental health care team’s patient population was comprised of patients with chronic mental illnesses, addiction or substance misuse, and/or homelessness. Many patients were affected by all three conditions. Not all, but many patients accessed primary care services sporadically, either in one of the medical clinics or often in the emergency department. It was not uncommon for a patient of the mental health care team to become suicidal, homicidal, or hypermanic and to require admission to the crisis stabilization bed to be stabilized. If the hospital’s crisis stabilization bed was filled, the police transported patients by car to another town 30 minutes away. Patients requiring long-term treatment for their mental condition were transported to a regional hospital located three hours away.

In this town, mental health care and addiction services were housed in one of four locations: the Mental Health and Addictions Services office building, the Resource Centre, the Crisis Centre, or the hospital. Staff in each of the four settings functioned independently of each other. The staff for PHC 3 consisted of a registered psychiatric nurse, an addictions counselor, the RN team leader, a district manager, a worker connected with a local AIDS Society, and an offsite psychiatrist. Two RNs were located in the Crisis Centre and an outreach nurse and an outreach worker were located in the Resource Centre.

Collectively, personnel at these locations provided community-based services consisting of harm reduction programs that included a needle exchange program and a methadone clinic, counseling and education, crisis/emergency response, street nursing, outpatient assessment for admission to hospital for detoxification, and case management. According to the proposal written by the manager and submitted to the NP steering committee, an FP, who lived in a town 30 minutes away by car, consulted with the mental health care team monthly regarding methadone services, and one of two psychiatrists, located three hours away by car, scheduled patient appointments in the Mental Health and Addiction Services office two days every three weeks.

Many, if not most, patients cared for by the mental health care team also had various social needs. Addressing patients' social needs necessitated the team working closely with other community agencies, such as BC Housing, the local school boards, Children and Family Services, FPs, primarily for consultation to address primary care needs, members of First Nations bands, and the police.

The NP was expected to work most closely with the mental health care team that worked out of the Mental Health and Addiction Services office. The office was located in a building that had been renovated in 2005, off the town's main street. Inside the front door of the office was a small walled-off waiting area with a closed door separating it from the remainder of the building. A receptionist was located behind a partial wall inside the waiting area. The receptionist allowed access through the closed door to the remainder of the building where team members' offices and work areas were located. Walking through the door, I encountered a large, open common area with three desks, a conference table, and four adjacent offices. The large open area was redesigned during

the 2005 renovation to accommodate community group meetings. Down a hallway from the common area was a large conference room, equipped for videoconferencing and telehealth linkage, and the NP's office. The NP's office was small and crowded, filled with a desk, computer, chairs, and an examination table. The funding for this equipment was included as one-time start up funds for all new NP positions.

Most of the care provided by the mental health care team was community-based and delivered in various locations such as in patients' homes, on the street, in jail cells, in the school, and in the Light House Resource Centre. The Resource Centre was established in 2007 through a partnership with the health authority, the Ministry of Employment and Income Assistance, BC Housing, and a not-for-profit organization. The Centre was designed to serve as a community base for various groups, especially those dealing with mental health and addiction issues. The health authority funded an outreach nurse and an outreach worker to work, full-time, in the Resource Centre. A participant described the services offered by the Resource Centre as follows:

There are AA meetings, boundary workshops, Bible studies, a talking circle, and healing groups... The law society does some workshops and the criminal court advocacy program where we go to court with people is here. The Seventh Day Adventist Church is coming in to do a non-smoking workshop. We help senior citizens with the reams of paper work required for guaranteed income supplement. There are a lot of people up here (in the town) who do not read, so we help people with the paperwork.

In addition to community groups offering services in the Centre, there was a soup kitchen that provided noontime meals four days a week and shelter beds in the winter. The Resource Centre was housed in a large building located in the downtown area, two blocks away from the offices of Mental Health and Addiction Services.

There were signs in the Resource Centre's front window indicating the partnership between the health authority, BC Housing, and the non-for-profit organization. Upon entering the building through the front door, a receptionist directed me to the office of the Resource Centre's director. The director's office was in the front of the building; in the back of the building was a kitchen, dining room, a chapel, as well as a large room containing computers and a television set. There was also a small room used by the NP, three days a week, for patient examinations and consultations. The entire area was open and clean; several people were in the kitchen preparing the noon meal.

Data Sources. Participants in PHC 3 included a fee-for-service FP, who had been in the town for one year and eight months and in whose office the NP practiced when first joining the mental health care team, an RN team leader who had been with the team for one year, the district manager for Mental Health and Addictions Services who had been in the position for five years, the NP, and the director of the Resource Centre who had been in that position two years. All participants completed one face-to-face interview lasting approximately 60 minutes. Documents included in data analysis were the proposal for an NP prepared by the district manager and submitted to the NP steering committee, the health authority's Five Year Strategic Plan for 2005-2010, the health authority's NP role description, CRNBC competencies, scope of practice, and registration documents, and the community's municipal 2005-2010 Strategic Plan obtained from its website. Primary sources of data were the interviews and the documents. Table 9 provides a list of all data sources for PHC 3.

Table 9. Data Sources for PHC 3

Data Sources	Interviews	Documents Reviewed
Manager	1	Proposal submitted to NP steering committee Health authorities 2005-2010 strategic plan Health authority's NP role description CRNBC Competencies, Scope of Practice & Registration Municipal strategic plan 2005-2010
Physician	1	
NP	1	
RN	1	
Community member	1	
Total Interviews	5	

NP Registration. The NP who was hired into this setting in June 2008 graduated from a Master's level NP program in BC in November 2007 and became a fully registered NP in March 2008. The NP was fully registered as an NP when assuming the position. This was the town's first NP and the NP's first position after obtaining NP registration. As a novice, the NP recognized the need for mentorship and arranged this with FPs in the medical clinics for the first two months after being hired. I discuss this arrangement later in my analysis.

Model of Care. In its 2005-2010 Strategic Plan, the health authority identified people with mental health illness and addictions as a high risk population and established strategies to increase care for this population. Following on the health authority's strategic direction, the district manager for Mental Health and Addictions Services in the remote north region of the health authority submitted a proposal for an NP position that was accepted by the health authority's NP steering committee. The position was vacant for more than two years before an NP joined the team in June 2008.

The NP who was hired, lived in a community located 500 kilometers away and traveled six hours one way to spend three or four days a week in PHC 3 and worked

approximately 10 hours a day to meet the health authority's expectation of full-time employment. Originally, the NP planned to remain in the position with Mental Health and Addiction Services for one year, hoping another NP position might become available closer to home. At the time of my site visit, June 2009, the NP had agreed to remain employed with Mental Health and Addiction Services for another year.

PHC 3's model of care was interdisciplinary, and as I described earlier, the team the NP worked with on a daily basis comprised a registered psychiatric nurse, an addictions counselor, the RN lead, and the manager. The NP also worked closely with an outreach worker and an outreach nurse who were located in the Resource Centre and the two nurses in the Crisis and Counseling Centre. A psychiatrist saw patients in the Mental Health Services office for two days every three weeks, but was not involved in team meetings. The NP had limited contact with the psychiatrist. Team members provided outreach care in the community, connecting with approximately 200 patients on the street, in homes, or the Resource Centre.

People are working in different settings, such as in hospitals seeing people, and reaching a variety of other communities from our offices. So that leaves us pretty mobile--an outreaching group.

The proposal described how the team provided care "on the street, tracking, monitoring, and attending to the most pressing health concerns of displaced locals and transients." A participant described the types of health needs of many of their patients, who were displaced locals and transients:

So types of needs are for people with FASFAE (fetal alcohol syndrome-fetal alcohol effective) disorder, hepatitis, HIV, vitamin deficiency, scabies, poverty, estrangement, diabetes, and profound depression as well as substance abuse, addiction, schizophrenia, and bi-polar disorders that were never defined before because the haze of addictions has always been around them. Almost all the

people we deal with have a history of having something physical happen to them, such as head traumas, fractures, physical, emotional and sexual abuse.

Not all patients had all of these conditions; however, the patient population followed by the mental health care team had mental health or substance misuse issues, and many had a combination of the two. The mental health team cared for a population of patients with complex physical, mental, and social needs. Because of multiple and complex problems, such as addictions that prevented them from keeping track of time, being homeless, and having trust issues, many patients did not regularly access primary care in FP offices. It was not uncommon for patients to access the health care system through the emergency department as this participant stated:

This group would end up being seen in emergency departments all the time. They're not going to doctors' offices, our core group, that's not on their map.

Intention. The district manager of Mental Health and Addiction Services, who submitted the proposal for an NP position to the NP steering committee, had previously worked with NPs in the Northwest Territories and strongly believed that an NP would fit well in the community. According to participants, the district manager consulted with community stakeholders involved in treating patients with mental health and addiction issues prior to submitting the proposal to the steering committee. Stakeholders expressed interest and were open to the idea of an NP in a role that would focus on addressing the primary care needs of patients with mental health and addiction issues, many of whom were homeless and were not regularly followed by an FP.

Once the NP was hired, participants recognized that as a new member of the team and a new provider in a small town, FPs and other community agencies providing services for the same population needed to understand the NP role. A participant

described the thinking that went into helping these stakeholders understand expectations for the role:

We didn't worry about volume of patients in the beginning. We were more concerned with community capacity building between [NP] and the doctors, and between [NP] and other agencies so that they would know that [NP] is here, and what [NP] can do.

According to the proposal, it was expected that the NP would be supported by mental health team members in PHC 3, who would provide expertise and backup for mental health issues. In this way, the NP and the other team members would address patients' physical and mental health problems. There was no expectation that the NP would populate a separate roster of patients. The NP was expected to become involved in the team's effort to provide care to the existing population of patients. A participant described the team approach to care and the NP's involvement as follows:

The mental health care team is involved with the clients and the [NP] worked with clients of our team. As a team, we decide who will take the case management role for the client and then discuss what the needs are for the client and make a plan during our weekly intake meetings. One team member takes care of their mental health, [NP] might focus on medication, while another member focuses on finance or application for social assistance and then we communicate about those needs. We refer to each other within the team and then it spreads out to a wider team in the community that involves physiotherapy, the Ministry of Children and Family Services, Salvation Army, and other organizations like that. We refer to other counseling centres, and that's how we make in interdisciplinary.

According to participants, PHC 3 team members were accepting of the idea of an NP becoming a member of the team, although they did not understand the NP role or how to utilize the NP role before the NP was hired. Once hired, the NP met with team members to discuss the role and how the NP envisioned contributing to the team's efforts to provide care. This process occurred during the first four months of the NP's

employment as the NP met with team and community members to discuss the role. One participant related the process of planning for how the NP would enact the role:

I met with [NP] and [manager] and we talked every couple of weeks about how [NP] would build relationships with members of the community and the team. We would make a plan and follow up in two weeks and see where to go next. It wasn't here is the NP and here is exactly what [NP] is going to be doing. It was not very concrete.

The NP was expected to interact frequently with people working in other community social services agencies, as well as FPs. The manager, who had been in the community for five years and knew all the key decision makers, and the RN lead identified key people for the NP to meet and with whom to establish relationships in order to become known in the town.

Clarifying Intentions. The NP was expected to meet the PHC needs of a targeted population of patients who were known and followed by the mental health care team. Many of these patients had multiple concurrent social and physical concerns such as substance misuse, mental illness, positive hepatitis C, fetal alcohol syndrome disorder, poverty and experiences of physical, mental, and/or sexual abuse. The team understood that these patients had been marginalized, did not access the health care system regularly, and had difficulty trusting providers. This mistrust, along with homelessness and addictions, led to their inability to make or keep appointments for care and as a result did not receive follow-up care, monitoring of medications, preventive screenings or other PHC services.

Although team members found the patients challenging to work with, they also realized that patients had mental and physical care needs that necessitated providing care

at the point of need, not at scheduled office appointments. A participant described providing care at the point of need this way:

[NP] is able to meet the needs at the moment rather than say book an appointment and [NP] will see the person next week. And that really suits our client population because you might lose them to contact if you can't be responsive to client needs. So on one hand it limits [the NP] because sometimes [NP] would not see anybody in an afternoon and other times [NP] in a few hours will deal with four different things that would have taken a lot more time if you would have planned an appointment next week. It has its good and bad points. It meets the client's needs.

Participants related that before the NP was hired, the mental health team primarily focused on patients' mental health care needs and did not feel capable of attending to many of their physical needs such as chronic disease management, ordering tests for health screening, or treatment of common health problems. Nurses from the team would see patients on the streets and refer them to the emergency department for suturing of lacerations or treatment of wound infections. It was not uncommon for a police officer to take a homeless person to the emergency department for treatment of infected wounds or lacerations.

Shortly after the NP was hired, and before the NP began seeing patients, the NP and the manager had to determine on-call coverage for patients followed by the NP. CRNBC mandated that NPs were responsible for arranging for after hours care of their patient population; yet this NP was only in the community three or four days each week. There was a need to determine how best to provide after hours care. A participant described the solution to this concern:

A lot of the clients [NP] seen are identified with one of the new physicians, because [NP] cannot cover call, does not live in the community, and because [NP] did not think it was realistic for one person to cover call 24/7. We came up with a plan that clients who did not have a family physician, [NP] would connect them with one and that way they would be covered 24/7, either through the emergency department or through the other practice. So, right now there may be clients that

do not have a physician they see, but they have one on paper and then they see [NP]. [NP] does see quite a few where [NP] is their primary care provider, but they are also linked with a physician. But the physician services here are quite volatile. There's high turnover and already we're hearing rumors that we're going to be short one of the six physicians.

As a way to provide after hours care, the NP negotiated an agreement with the fee-for-service FPs in the community so that patients would be attached their practices. Even though the NP was the primary provider, this approach linked patients to an FP, or at least to the clinic in which the FP worked. This solution met CRNBC's requirement for after hours care, and the NP and FPs agreed to the approach.

Finding Space. Once hired, the NP had to locate an office in which to work because no arrangements had been made previously.

They were prepared already to accept the idea of an NP, but not prepared in the fact that there was a space for an NP or an idea of what it would look like.

Prior to hiring the NP, some participants thought perhaps the NP would work out of one of the FP's office or possibly out of the hospital. A participant described the early plans for where to locate the NP as follows:

Well when we started we were thinking well should the NP be based in a doctor's office...but thought that is kind of an alien environment for our clients. We thought of an office here, or some other agency. We had no a pre-formed idea of physically where it would be located. We thought maybe the NP should be in the hospital and then we had this discussion with doctors and they said no because we would have more people flow through emergency, sort of jam it up. So okay, that's not going to work.

Fortunately, there was space for the NP to have an office in the Mental Health and Addiction Services building, as this participant recounted:

There was this room but it wasn't designated for the nurse practitioner. When [NP] came, we just looked everywhere and talked to a bunch of people. We thought maybe [NP] would work out of the hospital or maybe out of the doctor's clinics, or the community resource centre. It was [NP] who asked for this room because they were not using it and it was already set up for a medical practice.

Locating an office out of which the NP could conduct administrative work or telephone calls to follow-up with community agencies was one issue; the other issue that needed to be addressed was where the NP would see patients and provide care. Participants related that all team members recognized that providing PHC to patients with lives complicated by mental illness, addictions and homelessness would be challenging because many patients did not access FP offices and the team expected they would not access an office of the NP located in the Mental Health and Addiction Services building. They had previously ruled out the possibility of the NP permanently working out of an FP's office or the hospital.

The first four months the NP was employed, there was no space in which to see patients and the NP had no equipment such as an examination table. The NP used the four months to become acquainted with people working in community agencies and to spend time with the FPs in the two medical clinics. I discuss the time the NP spent with the FPs in a later section. A participant described the NP's activities during those first four months:

[NP] had two months of working out of the physicians' clinics and then three weeks of holidays and at least five weeks for ordering equipment, figuring out how to use the computer, getting set up for labs and x-rays, ordering supplies and all that kind of stuff. Also, [NP] met with the health care providers, got to know community resources and all that kind of stuff.

Shortly before the NP was hired, the Light House Resource Centre had opened. The NP, the district manager, and the director of the Resource Centre met to discuss the possibility of the NP setting up a clinic in the Centre. Everyone realized that the Resource Centre provided programs that supported the same population of patients the mental health team followed. These three believed that, if the NP was in the Centre at the same

times patients were there for lunch or other activities, there would be opportunity for patients to access the NP. A participant described how this decision facilitated patient access:

The Resource Centre has a lunch program four days a week and a lounge area where clients can use the telephone, use the internet, they can fax things. An outreach worker and a psych nurse ...have appointments with people there. They can also see the pastors. [NP] has a clinic room there and holds drop-in clinics around the lunch hours and some evenings so that people can drop in. Quite a few people see the NP in the drop-in clinic.

There was no cost to PHC 3 for the NP to have a drop-in clinic because the health authority partnered with the Resource Centre to provide community services. Any costs associated with the NP's clinic were covered under the partnership.

The drop-in clinic consisted of a desk and chairs; there was no examination table or other clinical equipment in the room. Clients were examined while sitting in a chair and the NP had to bring all equipment for examinations and health records to the drop-in clinic. In spite of these limitations the NP was able to provide an array of PHC including obtaining histories, assessing and treating wounds, treating skin conditions that resulted from scabies, and respiratory complaints, changing dressings, drawing blood, and other clinical services. As well, the NP provided counseling, health promotion, teaching, and early interventions to prevent more complex problems such as pneumonia. A participant described the NP's activities as follows:

[NP] identified a couple of patients that [NP] was able to diagnose and treat for pneumonia that had previously resulted in admissions over the winter. [NP] was able to identify it earlier and treat them as outpatients and prevent that admission.

The addition of the drop-in clinic at the Resource Centre created a new access point of primary care for the patient population followed by the mental health care team. Shortly after establishing the drop-in clinic the NP realized that patients were not

accessing the hospital's laboratory services for screening blood work. Working with the hospital's laboratory, the NP established a mechanism to draw the blood samples from patients seen in the clinic and transport the blood to the laboratory for processing. This process enabled the NP to screen patients for hepatitis and HIV/AIDs and obtain other diagnostic screening indicated by the patient's health problems at the drop-in clinic. As a result of screening, within the first year, the NP was able to identify two cases of undiagnosed Hepatitis C and refer the patients for follow-up treatment.

In addition to seeing patients at the Resource Centre, the NP's office located in PHC 3 doubled as an examination room, which I described earlier. This office was equipped by the health authority with an examination table and other clinical supplies. Here the NP followed patients who were referred by other members of the mental health care team for a variety of health care concerns commonly cared for in PHC. These patients did not access the Resource Centre's services and were willing and able to make and keep appointments with the NP. Patients who were seen in the Resource Centre could also access the NP in this office, if they chose to do so.

Defining the Role. Several participants defined the NP role as the missing piece of the team. Participants remarked that before the NP was hired, there were no FPs in the community who were paid to participate in team meetings where patient management was discussed. Although FPs supported the efforts of the mental health care team and provided consultation in the emergency department or if the patient had been seen in the FP's office, there was no funding provided to FPs to attend case management team meetings. With advanced knowledge, skills and capabilities the NP was able to provide that missing element to the team. The NP could incorporate best practices and treatments

and collaboration with other team members to initiate and monitor treatments, order necessary diagnostic tests, and attend to a range of PHC needs. The NP was able to draw upon provincial practice guidelines to assist in treating patients with conditions such as diabetes or hypertension. The NP had no previous experience in mental health and addictions and relied on resources such as *UpToDate*, an online evidence-based medical information resource, and other online databases provided by the health authority, to access evidence for treatment of depression, anxiety, and other associated disorders in the patient population. Members of the mental health care team were also a resource for the NP.

The following is one participant's remarks of how the NP filled a gap in services:

[NP] was the missing element for a lot of our clients. ...increasingly we had problems because they were orphans and nobody wanted to see them. Favours and bargaining would get us access to a doctor, and quite often the doctor wanted to focus on the immediate problem. [Manager] would walk up to a group of doctors in the ER and they would all run for cover because they knew what [the manager] wanted. [The manager] would feel like the bearer of bad news because there was somebody with complexity and it is going to fly in the face of the whole fee-for-service thing. [Manager] did not find the docs here particularly dollar driven but it's going to be a nightmare if we really get into sorting out the client's care needs.

Participants related that, in addition to no payment mechanism for FPs to participate in team conferences, most FPs were uncomfortable attempting to treat the mental health issues many patients were diagnosed as having because they did not have the background or experience in mental health and addictions. FPs were willing to consult with team members in the emergency department to address primary care issues. However, FPs were not consistently available to the team and therefore many PHC needs went unmet.

Participants most readily identified with the direct care aspects of the NP role. After working with the NP for almost a year, they said that the NP was able to refill patients' prescriptions in a timely manner and complete physical assessments for patients going into the detoxification centre. Participants valued the amount of time the NP spent completing patient assessments and recognized the thoroughness of the assessments. They also appreciated the increased emphasis on managing conditions such as hypertension and diabetes that the NP brought to the team. They acknowledged that with the addition of the NP, PHC 3 team members were able to attend to the physical, social, mental, and spiritual aspects of patient care and felt that patients were receiving a full range of PHC services, not just mental health care. A participant recounted how this occurred:

The NP can do primary care with them to pick out what are the important things to manage and follow that are often missed with this type of population.

The NP related that about 70% of time was spent providing direct patient care either at the Resource Centre or in the office at the Mental Health Care Services building. The remainder of time was consumed by administrative and clerical responsibilities. A participant described these responsibilities:

... opening and closing client files and travel sheets for reimbursement, ordering supplies and organizing the office and that kind of thing. Talking to other health providers about scheduling client appointments... Every phone call and interaction with other health providers usually has a client's name attached to it.

The NP also spent time traveling to meetings, such as the community of practice monthly meetings, in other areas of the health authority. Because of the remote location, travelling to those meetings required substantial time.

Involvement. Prior to submitting the proposal for an NP position to the NP steering committee and before the NP was hired, the district manager for PHC 3 sent letters and electronic communications to community representatives and agencies such as clergy, First Nations workers, the Native Friendship Centre, FPs, and other social services agencies that worked closely with the same population of patients, inviting them to attend a meeting to learn more about the NP role. According to participants, during the meeting the manager described the NP role and offered suggestions for how the NP could be a member of the mental health team. Stakeholders in attendance, including FPs, expressed acceptance of the idea to move forward with submitting the proposal. One participant described stakeholder acceptance in this way:

We were informed that there was thought of hiring a nurse practitioner though communications by email or letters saying the meeting was going to take place and I was invited to participate. I attended the meetings and the idea of presenting a nurse practitioner to the community was given out at the meetings. It was a very straight forward process from my mind. I was informed of this proposal and it turned out okay. I didn't really have anything to contribute or speak against so I basically just sat at the meetings.

The manager was able to provide a forum for discussion and gain support for the idea of having an NP in the community, even though stakeholders working in other community agencies and FPs had no prior experience or knowledge of the NP role. During the time the NP was in the community as a student there was no opportunity to become aware of all the community agencies who were involved with this patient population. As well, when practicing with the FPs in the community as a student there were no interactions between the NP and the mental health care team. Consequently, once hired, the NP had to become involved with implementing the role by meeting with

team members and other community providers to help them understand the role more clearly.

Team Involvement. The team did not have an active role in writing the proposal that the district manager submitted to the NP steering committee; in spite of this, once the NP was hired, members were open and accepting as this participant related:

I think that the manager was prepared and had a good understanding of what the role could look like. The physicians did not have as clear idea of what the role could look like, but were prepared to accept the implementation, as long as they had some say or involvement or were consulted for advice. The staff probably did not know much about it before [NP] showed up, so I would not say they were prepared, but once [NP] was here team members were open and accepting.

PHC 3 team members needed to become familiar with the NP and to learned how the NP could contribute to the team. A participant described how the NP and other team members worked together:

I do not know if they had an indication of what [NP] would actually be doing. It was more of [the manager's] vision. And so [NP] came in and started doing some capacity building with the team. I do not know if they were seeing the picture of how the NP role could be used until last fall. It was pretty grey, emergent design I think.

When asked if using an emergent design for role implementation worked in this setting, the participant responded:

I think it was good because if you start making promises to people and you do not let the design emerge as it could or should within the organization or within the community, then I think you are setting up for disappointment. So I think the way it turned out, the emergent design and going slower gave more of a clear picture of what [NP] could do and how [NP] would be a good asset. Then once [NP] started working with everyone it was "okay, this is pretty cool." So it was a win-win for the team and the NP.

As the NP became more involved with the team managing patients they had greater appreciation for the NP's contributions. A participant commented that:

[NP] comes to intake, shares what [NP] is doing and is available and easy to talk to. [The NP] is there for referrals. We have open, honest communication. I think it goes a long way to making a good team.

Community Involvement. As mentioned earlier, the NP was a new provider in this small community and had no previous experience working with people with addictions and mental health illnesses. Therefore, it was important to become aware of and connect with other providers caring for this population of patients. The district manager of the NP determined that during the first four months of employment, while awaiting equipment and office space, the NP would use the time to begin to establish collaborative relationships with those community providers who also provided care and services to the same patient population. The NP sought out and met with pastors, outreach workers, staff from Public Health and the Ministry of Children and Families, and First Nations workers. As well, the NP attended an informal meeting of people who were involved in providing care to vulnerable populations in the community called the Circle. Those attending the Circle meetings would discuss how to work together to provide care to this population. A participant described the Circle this way:

[NP] went to the Circle meeting, which is a meeting of about 30 people who meet every month to discuss issues related to providing care and services in the community. At the Circle meeting [NP] was exposed to, introduced, and networked with First Nations workers, school board representatives, social workers, crisis counselors, and many more community workers.

In all meetings the NP was able to learn about the role of other community providers and services as well as explain how the NP role was intended to contribute to the community and the care of the patient population as described by this participant:

Everyone that [NP] came in contact with, whether they were a client or another care provider, [NP] would explain to them what the role of nurse practitioner was and then discuss what the role would possibly mean to them, their clients, and learn about what types of services they offered in the community.

The NP was hired to work with a specific population of patients in a small rural community. In an effort to become oriented to how care was provided for this population, the NP and manager devised a plan that would allow the NP to become acquainted with other providers who also supported this patient population. I discuss this orientation in more detail later in this analysis under manager involvement.

NP Mentorship. Participants commented that FPs had been involved in the early meetings with the manager to discuss the role and wanted to be involved in an advisory or consultation role. According to the proposal, the mental health care team had an established relationship with FPs and because of this relationship, it was anticipated that FPs would accept the NP as another member of the PHC 3 team.

When hired, the NP was fully registered with CRNBC. There was no need for the NP to be supervised by an FP or registered NP. However, as a novice NP, and being new to the town, the NP believed it was necessary to establish relationships with FPs for mentorship and support. The FPs who had mentored the NP as a student were no longer in the community and the FP, who according to the proposal submitted to the NP steering committee would mentor the NP, had moved away by the time the NP was hired. Therefore, the NP contacted FPs and made arrangements to spend time with them in their practices, seeing patients under their supervision. The FPs agreed to mentor the NP and the NP spent two months working in the town's two medical clinics. During those two months the FPs were able to become familiar with the NP's knowledge, skills, and capabilities, and they billed the medical services plan for their consultation time with the NP. This involvement also set the stage for ongoing relationships between the NP and the FPs as this participant describes.

[NP and manager] discussed the role with all the players, our staff and the doctors. Then [NP] had to revisit the doctors. I mean, it's no good sending a representative [NP] had to meet the doctors and then [NP] spent time with both of them. Time being a few months, which I think was really important so they could quickly see "this is what you do, this is what I do." That was good. That was really important.

In addition to working with FPs, the NP also spent time with other NPs who were employees of the health authority and members of the community of practice. I go into more detail of how this was arranged later. This experience enabled the NP to develop an awareness of how other NPs had established their practices and was an opportunity to be mentored by more experienced NPs. In addition, through the community of practice the NP was able to consult with other NPs to discuss how to address practice issues. For an NP practicing in a remote community, the community of practice was also a source of support as this participant communicated:

Being the sole nurse practitioner in a rural area [NP] has not yet found a continuous source of mentorship. [NP] had just been kind of getting it here and there, with quick visits to the docs and then monthly at the community practice meeting. [NP] has a chance to share a little bit about issues that [NP] had and then the nurse practitioners as a group will offer suggestions, but it's very limited so it has been hard to work mentorship into the implementation.

Manager Involvement. First the district manager created community awareness of the NP role and subsequently submitted a proposal to the NP steering committee for the position. Once hired, the NP and the manager met weekly to determine how best to proceed with efforts to implement the role. Participants remarked that the manager was supportive of the NP and had a vision for how the NP could practice in the community.

The manager introduced the NP to the FPs and facilitated the relationships that developed between the NP and various people who were working in social service agencies in the community. Through the manager's support, the NP was able to

determine how to proceed with mentorship with the FPs and how to create the role so that it could be integrated into the mental health team. Participants remarked that the manager recognized the need for a novice NP to connect with other NPs in the health authority, and paid the NP's travel expenses for the visits. This participant related:

[Manager] has really tried to keep [NP] connected with the nurse practitioners elsewhere, which is hard when [NP] is this far away and it takes some expenditure and some focus. But I think at this juncture, it is really important that we keep [NP] very connected. More connected than maybe if the position were down south where [NP] would in the course of a week, meet a few colleagues.

As a result of the manager's support, the NP was able to establish the drop-in clinic at the Resource Centre, spend two months in the two medical clinics working with FPs, and travel to other locations to spend time with other experienced NPs employed by the health authority. Participants remarked that it was the ability of the NP and the manager to work together, and the openness of the manager, that contributed to the NP's efforts to implement the role as envisioned by both the manager and the NP.

Acceptance. The manager's efforts to involve community stakeholders in the early discussion contributed to their readiness to accept the NP role as a new provider in the community. Stakeholders, such as FPs and people from other community agencies, realized that the NP would provide care to a population of patients who were unattached to the health care system and frequently homeless. A participant related that although some community members did not believe there was a problem with homelessness, others, for instance the director of the Resource Centre, were fully aware of the unmet needs of patients and accepting of an NP to help provide primary care to this population of patients.

Patient Acceptance. Patients accessing the Resource Centre did not immediately accept care from the NP. Many patients had difficulty trusting providers and it took time before they accessed the NP in the drop-in clinic. Participants reflected that the NP spent time in the Resource Centre, was available to anyone who wanted to be seen, and over time, patients began to approach the NP in the drop-in clinic area. A participant described patient acceptance as follows:

If there wasn't a need the nurse practitioner position would have fallen on its face. The community had to decide whether they wanted [NP]. It was not up to us to sit in meetings and decide whether or not the community wants [NP].

As more patients were seen by the NP in the Resource Centre and trust between patients and the NP developed, the word spread on the street and more patients began to access care in the drop-in clinic. According to one participant, the outreach worker and the nurse who worked out of the Resource Centre would also refer patients who had dropped into the Centre for lunch to the NP for care.

As I described earlier, the NP spent two months working with FPs in both of the town's medical clinics, and developed relationships with them and their clinic staff. A consequence of the NP spending time with the FPs was that when the NP saw a patient in the drop-in clinic who had a chart in one of the medical clinics, the NP could follow up with the clinic and, with the patient's permission, obtain results of diagnostic testing and/or referrals. The NP could then consult informally with the FP about the patient while in the clinic. This relationship might appear casual; however, participants remarked that it actually facilitated access to care for patients who would not have been followed up. A participant remarked:

There are only two physician clinics in the community and [NP] spent time at both clinics when first here. The staff and the physicians know [NP]. [NP] is able

to just walk into either clinic and go to the back area and with the client's permission, [NP] can pull their chart off the shelf and get information about past X-rays or CTs or referrals from specialists, consultants, reports and then [NP] can grab a doctor as they are coming in or out of a room and ask for a consult. That has really helped [NP] in the role. [NP] does not have to make an appointment to have a consult with a physician or fax a letter to the clinic and wait for them to copy a whole chart and send it back.

The NP frequently consulted with FPs about complex patients, typically after completing a health assessment. The NP could spend an hour and a half completing the patient assessment in the drop-in clinic, and later consult with one of the FPs about the findings. Participants indicated that this collaborative effort also contributed to better patient care. Because these patients would not access care through the FP's office, the NP was increasing access to care for patients who otherwise accessed care infrequently.

Team Acceptance. Participants remarked that team members were readily accepting of the role once the NP joined the team. A participant commented:

The mental health team is very appreciative of the value that [NP] brings and the services that [NP] offers. They have been frustrated by the gap in services in the past. There might be a client who has medical issues that were not dealt with because they are not mentally well enough to deal with them or the physicians do not have time in the clinics and/or they do not have a family physician. Now team members can bring a client to [NP] and [NP] can renew a prescription ... and they do not go off their psychiatric meds.

The team realized that the NP was filling a gap in care that had been a source of frustration for everyone. Participants mentioned that team members frequently had difficulty accessing PHC for patients because FPs were reluctant to assume ongoing responsibility for difficult mental health patients. In spite of the FPs' hesitancy, they were supportive of the mental health team's efforts, and would frequently respond to team members' requests to consult with them about particular patients who were in the emergency department. After the NP was added to the team, the need for FP consultation

was reduced. A participant described how the NP improved the relationship between the mental health care team and FPs:

I think it has helped our relationship with doctors because we really put upon them with mental health and addictions. I think it has probably sustained our relationship with them because we're not there all the time, so it feels a little bit better. And it's better practice.

When I asked participants if there had been any changes to the functioning of the team as a result of the implementation of the NP role, they remarked that the team more frequently discussed complex patients and believed patients were receiving mental and physical care. One participant stated:

There's a lot of dialogue among team members about the more complex patients. I think people are feeling better that their clients are being taken care of more holistically. So I think there's a win-win on several different levels: for the client, for the nurses, for the NP, for the doctors and for the team.

Several participants commented on the NP's leadership in facilitating awareness and acceptance of the role. They indicated that the NP's openness, ability to accept people where they were in life without judgment, and patience, all contributed to the team's acceptance of the NP.

Student Placement. The NP, as a student, spent 500 hours with FPs in one of the community's medical clinics. During the student placement, the NP worked with FPs in their offices and also went with them for rotations in the emergency department. The NP finished the last student placement in July 2007 and was hired in June 2008. By the time the NP accepted the position, FPs who had been mentors had moved from the area. The Resource Centre was not in existence during the time of the NP's student placement and the NP had not collaborated with the PHC 3 mental health care team, with the exception

of seeing patients followed by the team who presented in the emergency department for treatment.

Whilst not returning to the medical clinic in which student practice occurred, the NP did return to a familiar community. The student placement in the rural remote community created awareness of the community and its health care needs. This awareness of the town, and its members, contributed to the NP's willingness to accept the position and return to the community to practice. According to participants, the fit between and among the NP, team members, and the community of patients and stakeholders developed after the NP was hired. Many attributed the goodness of fit to the NP's approach, communication skills, and leadership style. This participant described the NP's approach:

It was interesting because [NP] took a unique approach. [NP] went and worked with the doctors on a one to one basis in their offices. Showed them how the billing worked so they could still get paid for the consultations they did with [NP]. [NP] worked with them to show them the [NP's] skill set, build a relationship, and build trust. That went long way to having them buy in to having [NP] in the community. I don't think if [NP] had not laid the groundwork, [NP] would still be here. I think they (FPs) would have made it too difficult for [NP] to stay.

Participants indicated that the NP's approach to building relationships contributed to the success and fit of the NP with the community. FPs who consulted with the NP, as described earlier, could bill the medical service plan for the consultation. In this way, the FP was remunerated for the time spent consulting with the NP. The consultations typically occurred when the NP went by the FP's office to access a patient record or after the NP had obtained a history and physical examination and requested a consult to discuss findings. A participant remarked as follows:

[NP] could say to one of the doctors, “look I have just spent an hour and a half with this client and this is what I think we should be doing.” They would get paid for the consult and they would realize “oh, yeah there are some health needs here. There’s no way I could have done that in 15 minutes.” So they got paid (by billing the medical services plan for the consultation with the NP) , the client was taken care of, and they did not have to take care of the complex client so it was a win, win for everyone.

NP Role Enactment

The NP in PHC 3, the mental health model, practiced in a community Resource Centre and in an office setting. During our interview the NP related that enactment of all the NP competencies was challenging. However, during my interviews with other participants, I recognized that the NP was enacting not only the clinical competencies of the NP role, but also CRNBC’s advanced nursing competencies of collaboration, leadership, change agent, and research (CRNBC, 2003). The NP collaborated with other members of the team, FPs and other community providers, for example, members of the First Nations community and BC Housing to attend to clients’ health regularly. The NP acted as a change agent by initiating, in collaboration with the director of the Resource Centre, the drop-in clinic and diagnostic screening for sexually transmitted infections or periodic health screenings from the drop-in clinic. The NP demonstrated leadership skills by working with the district manager to establish relationships with community FPs and other community providers and to help them to understand the NP role and functions. The NP’s approach to establishing contact with patients contributed to their willingness to attend the drop-in clinic and to trust the NP’s knowledge, skills, and capabilities. The NP’s practice was informed by evidence-based treatment guidelines and other evidence obtained from electronic databases such as *UpToDate*.

The NP expressed concern for keeping clinical competencies and skills current. Because the practice was community based and, for the most part, relied upon patients accessing the drop-in clinic at the Resource Centre, the NP might see four or five patients in an afternoon, when patients were in the Centre for lunch, and on other days no patients accessed the clinic. Most patients' lives were complicated by complex social needs, which often took priority over physical needs. Patients also had complicated health histories and required considerable time for the NP to obtain a history and complete a physical examination. Once seen by the NP, patients did not regularly return for follow up care, and because of the nature of their lives, they did not take medications for chronic conditions such as hypertension or diabetes on a regular basis. As a result, the NP could not determine if treatments were effective or go over the results of laboratory testing that the NP obtained during a clinic visit.

The small numbers of patients seen in the clinic that required an assessment and diagnosis of a physical problem contributed to the NP's concern that the knowledge and skills to assess and diagnose a variety of health conditions would suffer from insufficient practice. Skills like suturing and obtaining a Pap test were performed infrequently, and the NP raised a concern that without practice, these skills would be lost. As well, there was little variation in the types of health conditions the NP addressed with patients. Much of the NP's contact with patients was dominated by the social aspects of care, particularly working with the mental health care team to connect people with resources such as housing. A participant expressed this concern:

It's not necessary to have exposure to every situation but if [NP] had a client who would not go to Emerg and needs stitches and [NP] has forgotten how to tie a knot because [NP] has not sutured in a year, then that's an opportunity missed to provide the care.

As a relatively inexperienced NP, being the sole NP in a remote community presented challenges. The NP expressed a desire for more collaboration with colleagues than was accorded by quick consultations with the FPs or by the monthly community of practice meetings. Additionally, travel for continuing education was difficult because of the distance to the events. At the time of this interview the manager and the NP were exploring alternative ways the NP could obtain additional contact with patients as this participant explained:

There's a nurse practitioner who works [in another city] who has a very busy practice and might come here for a few weeks and [NP] might go there to get some experience. Another option would be for [NP] to spend a day with a dermatologist to get some advice and exposure to treatments for different things. The other thing that [NP] was talking about was maybe doing some evening call with some physicians in the emergency department to get exposure to sprained ankles and sutures and that kind of thing.

Community of Practice

The NP in PHC 3 was hired in June 2008 and the community of practice began October 2007. Because the community of practice was fairly well organized by the time the NP was hired, members were able to provide support to the NP during early efforts to implement the role.

Perceived Outcomes of NP Role Implementation

In spite of these practice limitations and concerns, participants were able to relate various outcomes that they perceived resulted from implementation of the NP role. Participants believed that patients followed by the NP in the drop-in clinic were not accessing the emergency department as often. They also related that the NP diagnosed a case of pneumonia in a person who normally would have spent time over the winter months in hospital. By initiating treatment early, the patient avoided a hospitalization.

Prior to the NP's drop-in clinic, patients would not go to the laboratory for blood work. The NP began health screening for sexually transmitted infections by drawing blood in the drop-in clinic. An outcome of better screening was the detection of two new cases of Hepatitis C. The NP was able to provide health teaching and discussion of prevention of transmission, as well as refer the patients to a specialist for initiation of treatment.

According to participants, patients, FPs, and other community providers were satisfied with the type of care the NP was providing and the NP was also satisfied with the type of care patients were receiving. This was expressed as follows:

[NP] gets a lot of satisfaction when clients tell [NP] that they haven't had this kind of service for this long or no one's ever asked them that question before. [NP] also finds it satisfying to have clients come back and say the treatment worked, or that they are improving. Success is measured if a client did not have an admission this winter or another client did not threaten to commit suicide by seeing [NP] weekly. Even though [NP's] numbers are small, [NP] is making a difference, that really contributes to the success.

In summary, after a year in the community, the NP was accepted by patients, the mental health team, and the community. The patient population for whom the NP provided care was complex; however, with the support of other team members, participants perceived that the NP was contributing to positive patient outcomes. The team and the community's awareness and appreciation for the role was expanding as they continued to collaborate with the NP on a regular basis.

For a novice NP, the position was challenging, most notably because of the considerable distance needed to travel to and from the community and the isolation that resulted from practicing in a remote community. Fortunately, the NP found the work

satisfying and, at the time of this interview, May 2009, had agreed to continue in the community for another year.

Relating Findings in the Mental Health Care Setting to Propositions

Findings from the analysis of this sub-unit support the proposition that clearly identified intentions for the NP role by managers, physicians, other staff, and NPs influence the process of NP role implementation. Although not included in the original proposition, community groups who worked with the same population of patients also had to learn about the role from the manager of this setting. Prior to submitting the proposal for an NP, the district manager discussed the NP role with various community groups. Team members were not consulted as closely. After being hired, the NP helped the rest of the mental health care team identify expectations for the role. PHC 3 team members did not have to clarify intentions for the role after the NP was hired as this had been clearly articulated before the NP was hired. There was a need to find a space in which the NP could practice, as this had not been identified before the NP was hired.

The proposition that greater involvement of key stakeholders such as managers, physicians, other staff, and NPs influences the success of the process of NP role implementation is also supported. Community stakeholder groups were not included in my wording of the proposition; however, my analysis identified that their involvement was key to successful role implementation in this setting.

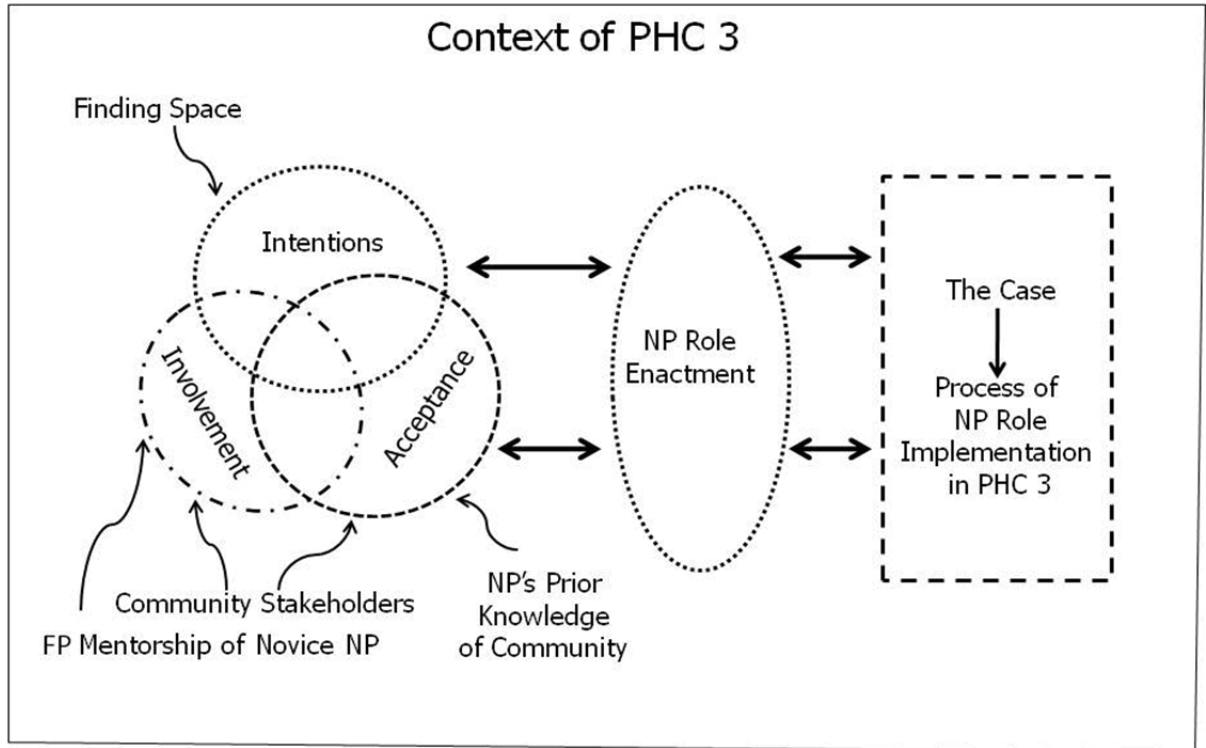
These findings also support the proposition that high levels of acceptance of the NP role by managers, physicians, and other staff positively influence the process of NP role implementation. Acceptance of the role by community stakeholders also influenced role implementation. All team members were accepting of the NP and believed that the

NP was the missing piece of the team. Community stakeholders such as patients and physicians accepted the NP over time, once they established a trusting relationship with the NP.

Finally, the proposition that involvement and acceptance of managers, physicians, and other staff in the implementation process and clearly identified intentions for the NP role influence the ability of the NP to enact all role domains is also supported. Without team members and community stakeholders' acceptance the NP could not have enacted the competencies of leadership, collaboration, utilization of research, and change agent. The NP functioned within the context of the team and they supported the novice NP to gain the requisite knowledge and skill to work with a challenging client population with mental health and substance addictions.

In Figure 15, I demonstrate additional attributes of the concepts of involvement, acceptance, and intentions identified through analysis of data from PHC 3. These include the need to find space in which the NP could practice, involve and gain acceptance from community stakeholders, and the NP's prior knowledge of the community.

Figure 15. Evolving Conceptual Framework: PHC 3 and Interrelated Concepts



The with-in case analysis was used to analyze each sub-unit (PHC 1, PHC 2, PHC 3) in order to build an explanation of how the health authority went about implementing the NP role in each sub-unit and how the concepts of intention, involvement and acceptance influenced implementation in each of the three PHC settings. Each PHC setting was unique with different models of care, geographic locations, and patient populations. Throughout the with-in case analysis, I made changes to the original conceptual framework to identify its evolving nature and illuminate additional attributes of the concepts identified from the with-in case analysis (Figures 9, 13 and 15). The with-in case analysis also revealed that the concepts are interconnected and simultaneously influence NP role enactment and the implementation process. In Table 10

I identify the attributes of each concept discussed in the with-in case analysis. I will use these to guide my discussion of findings from my cross case analysis.

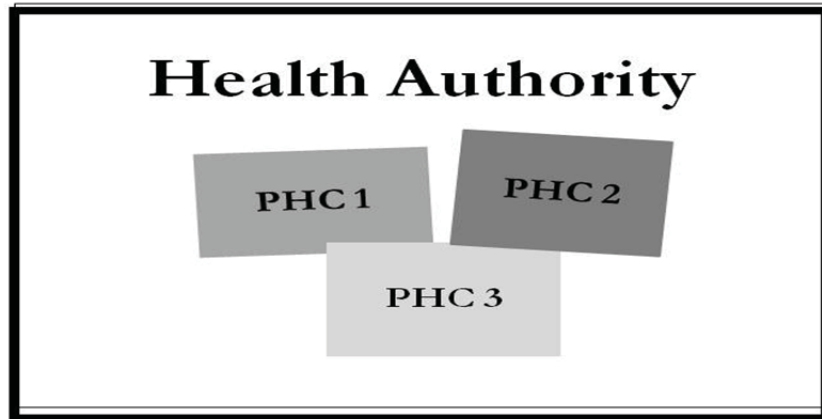
Table 10 Concepts and Their Attributes Identified through With-in Case Analysis

Concepts	Intention	Involvement	Acceptance
Attributes	Clarify intentions Determine patient population Define role Find space Long-term planning	Staff Other providers Medical specialists Family physicians Pharmacists Patients Family physician's mentorship of novice NPs Managers	Prior knowledge of NP Staff Other providers Family physicians Medical specialists Community agencies Patients

Cross Case Analysis

After completing with-in case analysis the next level of analysis in case study research is cross case analysis where I shift the focus of analysis from the embedded sub-units, the PHC settings, to the health authority as a whole. Figure 16 locates the three sub-units within the health authority and indicates that the focus is the health authority.

Figure 16. Cross Case Analysis



The propositions that guided this level of analysis were:

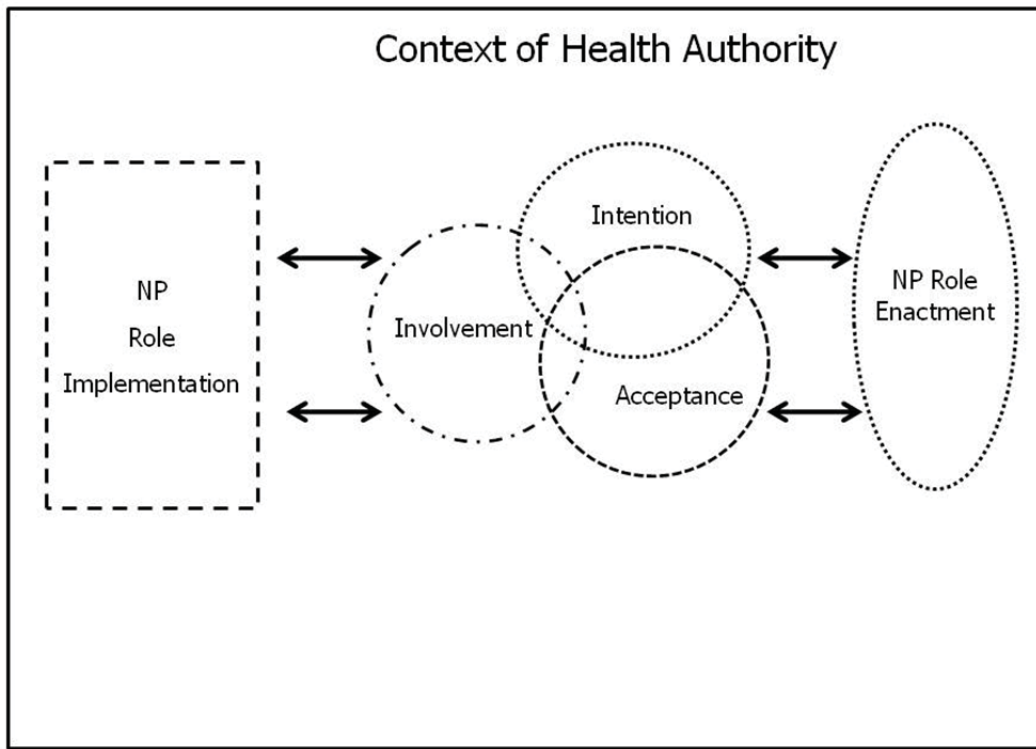
1. Clearly identified intentions for the NP role by managers, physicians, other staff, and NPs influence the process of NP role implementation (Cummings et al., 2001; DiCenso et al., 2003; Goss Gilroy, 2001; Jensen & Scherr, 2004; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001).
2. Greater involvement of key stakeholders such as managers, physicians, other staff, and NPs influences the success of the process of NP role implementation (Cummings et al., 2001; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001).
3. High levels of acceptance of the NP role by managers, physicians, and other staff will positively influence the process of NP role implementation (DiCenso et al., 2003; Goss Gilroy, 2001; Gould et al., 2007; Jensen & Scherr, 2004; Reay et al., 2006; Stolee et al., 2006; Thrasher & Purc-Stephenson, 2007; van Soeren & Micevski, 2001).

4. Involvement and acceptance of managers, physicians, and other staff in the implementation process and clearly identified intentions for the NP role influence the ability of the NP to enact all role domains (DiCenso et al., 2003; van Soeren & Micevski, 2001).

Similar to my method for with-in case analysis, I approached this level of analysis by following these theoretical propositions (Yin, 2009), the conceptual framework I developed and modified (Figure 4 Chapter 3, Figures 9, 13, and 15), and the study's research questions to explain how the health authority implemented the NP role (Miles & Huberman, 1994; Yin, 2009). In Chapter 4 I defined implementation as the process used by the health authority to add an NP to the health care team in PHC settings. Components of the process included determining how the role would function, identifying the need for the NP role, and accepting the new NP as a member of the health team.

My with-in case analysis identified the interconnectedness and additional attributes of the concepts. Earlier versions of the conceptual framework appeared to indicate a linear connection between the concepts, NP role enactment and role implementation. On further reflection of the process, I modified the conceptual framework to locate the concepts between NP role implementation and role enactment. Figure 17 reflects these changes.

Figure 17 Evolving Conceptual Framework



In Figure 17 the concepts are located between NP role implementation on the left and NP role enactment on the right demonstrating how the concepts simultaneously influence implementation and role enactment. While the framework appears linear, earlier analysis identified the iterative nature of the process of NP role implementation and NP role enactment.

NP Role Implementation

In its 2005-2010 strategic plan the health authority emphasized the need to strengthen and to expand PHC capacity and increase the emphasis on health promotion and disease prevention. The strategic plan used a population health approach to identify people residing in remote and rural areas, First Nations people, the frail elderly, adult and seniors with mental health and/or addictions, the chronically ill, and people with

disabilities as high needs populations. The implementation of the NP role was included in the plan as one means to address the health needs of these populations. NPs were expected to increase capacity in PHC services by increasing access to care, emphasizing health promotion, and managing chronic diseases.

In 2005, the MOH allocated 15 funded NP positions to each health authority in BC. Each position included ongoing funding and one time start up fees to cover the cost of establishing NPs in practice settings. Health authority senior managers allocated responsibility for overseeing the implementation process to the NP steering committee. The committee's mandate was to develop an NP role description, create a format for submission of proposals from PHC settings for new NP positions, and recommend strategies to introduce and implement the new role. Members of the committee were responsible for approving submitted proposals from practice settings. The guidelines for proposal development created by the steering committee gave practice settings broad parameters for how to establish the NP role. As a member of the committee, I was aware that priority was given to proposals creating new positions in diverse geographic settings that served the high needs populations identified in the strategic plan.

The settings purposively selected for this study represent three of the 15 locations in the health authority where the role was implemented in February 2009. The three settings were diverse with respect to geographic locations (urban and remote rural), patient populations (seniors, patients with chronic diseases, and patients with mental illness and/or addictions), and models of care (fee-for-service setting, an interdisciplinary seniors PHC centre, and community-based team care). These three settings are similar to other settings in which the health authority implemented the role.

The decision to hire an NP in practice settings was determined in one of two ways: 1) an administrative directive from senior health authority managers such as the implementation of the NP role in PHC 1, and 2) approval of proposals developed and submitted to the NP steering committee by managers from practice settings, for example, PHC 3. Either way, the process did not require involvement of team or community members in early decision making.

The process used in PHC 1 and PHC 2 involved senior health authority managers meeting with FPs who indicated interest in the NP role and/or developing project proposals that were submitted to the PHCTF for funding. Likewise, managers who submitted proposals to the NP steering committee were not required to involve team members in the writing of the proposal for an NP position. As a result of this top down approach to implementation, before the NP was hired few team members participated in efforts to determine a need for an NP or how the addition of an NP would change care delivery.

This was significant because at the time most of the NPs in this study were hired (2007 & 2008) the role was new to BC, having been legislated in 2005. As a result of the newness of the NP role in the health care system, according to participants, team members in practice settings were unfamiliar with the role and had little knowledge of how best to use the NP's capabilities. In addition, the first group of NPs graduated from NP programs in 2005. Recent NP graduates hired into positions had been mentored by FPs during their educational program because there were no registered NPs in BC until 2006. This meant that for the first graduates from the NP programs their only exposure to experienced NPs were faculty members teaching in the programs. Therefore, NPs were

hired into PHC settings where few team members had been involved in the decision to hire an NP and had not participated in discussions of how the NP would function, the types of patients for whom the NP would be responsible for providing care, or how the NP role interfaced with existing roles in the settings.

Before the NP was hired, participants involved in this study including managers, physicians, and NPs were aware that the health authority intended for NPs to provide direct patient care for various populations such as elderly, or people with chronic diseases. For participants inexperienced with the NP role and/or who did not understand the role, knowing that NPs were expected to increase access to care for patients, improve patient outcomes and the function of interdisciplinary teams did not provide insight into how the NP was expected to enact the role, function within the existing team, or the competencies and scope of practice of the NP role.

Prior awareness of the NP as an individual contributed to how team members understood the role and their willingness to collaborate with an NP. In PHC 1 exposure to the NP as a student contributed to the FPs' willingness to enter into a demonstration project with the health authority. In PHC 2 team members' exposure to NP3 as a student and working with NP3 when NP3 was an RN helped to establish relationships with the team before NP3 was hired. However, acquaintance with the NP as an individual did not provide team members with a full understanding of the role or how the NP would function after being hired. In all three settings, after the NP was hired team members such as professional staff, FPs, other community providers, and managers had to work together to identify or clarify role expectations and determine how the NP would function as a new member of the team.

Team members in the three PHC settings collectively identified the patients the NP would follow, discussed how to assign patients to the NP and whether or not the NP would be in the setting long-term, and located a place where the NP would provide patient care. Although the CRNBC had developed competency and scope of practice documents that team members referenced to understand better the NP's skills and abilities, in PHC 1 and PHC 2 they wanted more clarity and specific direction.

Intentions for NP Role Implementation

Unexpected changes, such as the retirement of an FP in PHC 1 and increasing the age of the patient population in PHC 2 precipitated the need for participants to clarify for which of the patients currently in the setting the NP would provide care. The original intent in PHC 1 was that the NP would co-manage patients with chronic diseases; however, after the FP retired, the team needed to reassign the FP's patients to another provider in the practice. In PHC 2 shortly after NP3 was hired, the age of new patients admitted to the centre increased from 55 years of age and older to people 70 years of age and older. Participants related that older patients admitted to PHC 2 were frail and had more complex care needs.

In both instances, team members in the PHC settings approached the health authority for assistance in understanding how to proceed with implementing the role. Because participants were unfamiliar with the NP role, they wanted more direction and structure from the health authority and looked to senior managers in the health authority for expert advice as a participant remarked:

When we talked about role implementation, I think that any organization that is looking at employing a nurse practitioner and putting this into practice, there needs to be a huge amount of support. There needs to be managerial support, logistical support, and practice support in the beginning. I can't stress this enough. There is a

need for more than getting the nurse practitioner's office set up and computer access, those kinds of things were all fine. But when it came to the day to day types of things, how does the nurse practitioner do this? There needed to be a bit more support from upper management.

The impetus for NP role implementation originated with senior health authority managers who established strategic direction for the NP role and once hired the NP and others were not sure how to enact these plans or how the NP should enact the role. In PHC 1, team members requested approval to modify the original plans so that the NP could assume responsibility for a retired FP's patients. In PHC 2 team members had difficulty determining the most appropriate patients for a novice NP to follow when all new patients being admitted to the centre had multiple complex care needs. Being unfamiliar with the role, or a novice in the role, resulted in the need for more guidance in determining how best to use the NP. In PHC 1 there was little planning prior to the hiring of the NP other than the meetings with health authority managers and FPs to discuss adding an NP to help with chronic disease management. Likewise in PHC 2, there was no discussion with team members before NP1 and NP2 were hired.

Senior health authority managers responded to these requests but the response took six months in PHC 1 because of turnover of health authority managers and three months in PHC 2. These delays slowed the team's discussions of the most appropriate patients for the NP to follow, made it difficult for team members to obtain mutual understandings of the role functions, and in PHC 2 contributed to turnover of NPs.

In addition to senior health authority managers, participants remarked that team members also looked to the NP to explain the NP role, and although new in the role, NPs assumed leadership in varying degrees to define it.

[NP] certainly exhibited leadership with the team, helping the team understand the nurse practitioner role, showing leadership in terms of clinical competencies, and development and professional standards. [NP] also demonstrates leadership in looking at patient populations and helping the team consider how to deliver care differently.

The NP's knowledge and understanding of the role and ability to explain it to others contributed to the team's appreciation for how the NP would function as a member of the team. In PHC 1 it was the NP who raised the possibility of the NP assuming responsibility for those patients of the retired FP who could be appropriately followed by an NP. In PHC 3, the NP assumed leadership in contacting community FPs for mentorship and locating space to practice in the Resource Centre. Ultimately, after the NP was hired, team members worked together to clarify the types of patients the NP would follow and how the NP would function within the team.

I think that there may have been a little bit more expectation when it was set up that the nurse practitioner would deal with populations that the health authority, as an organization, had chosen as key populations that they felt had gaps in service. I think that changed as the nurse practitioner role developed in the clinic because the clinic had its own populations and its own needs. So it developed according to the clinic's populations and needs rather than what the health authority had seen as their populations. And it was different in each clinic because the health authority was looking at a very large population and pockets of patients who may not be appropriate in one area. You know street people, for example, but if the clinic doesn't manage those kinds of patients, then they're not going to take them on because the nurse practitioner is there.

The process of working together to clarify intentions so that expectations of how the NP functioned in the setting matched the needs of the clinic evolved over time and required time commitments from team members. Because planning for the role took time and this work was not initiated before NPs were hired, it occurred afterwards. During this time, while team members worked to define the role, the NPs in PHC 2 and PHC 3 were limited in what they could actually do. In PHC 2 because NP2 was placed in the setting

unexpectedly, it took time for team members to sort through the role and responsibilities. In PHC 3 it was four months before the NP could begin to see patients because of lack of planning for a space in which to practice. I discuss space later in this analysis. Because of their inexperience working with NPs, team members had difficulty defining the role within the team.

Defining the Role. Prior to working with the NP and witnessing how the NP would practice, most participants could not envision the role within the team. Early in the implementation process, team members' lack of understanding of the role contributed to two NPs resigning from positions in PHC 2. In both instances team members were not familiar with the role and could not envision how an NP could function in the team. NP1 and NP2 were novice NPs and this may have contributed to their inability to help other team members clearly envision the role or carve out a place within the team; however, team members' lack of experience with the role also contributed to the NPs' decision to leave PHC 2.

Another restraint on NPs hired into PHC 1 and PHC 2 was their CRNBC provisional registration. With provisional registration, NPs must have an FP or a fully registered NP supervise their practice, sign prescriptions and orders for diagnostic testing, and referrals to medical specialists. It was not until the NPs became fully registered that others could begin to better understand how NPs actually function. In PHC 3 the NP was fully registered when hired, but was a novice NP without prior experience as an NP and needed close mentorship from experienced FPs or NPs.

Once NPs became fully registered and practiced enough to begin to feel confident in their skills, abilities and decision making, and team members had time to work with

the NPs, in all settings team members' understanding of the role increased. During my interviews, I asked participants to define the role based on their experience working with the NP. Participants in all three settings most readily related to the clinical aspects of the role. They believed the NP was additive to the team, a bonus. One participant defined the role more broadly:

The nurse practitioner is primarily a nurse who has expanded training in diagnosis and treatment. [NP's] role on a day to day basis is to manage the care of patients that present to the clinic, whether they're [NP's] own patients or the clinic's patients. [NP] manages episodic, simple primary care problems like a sore throat and complete physicals and chronic disease management and women's health. Because as a nurse the nurse practitioner has the skills and training to look at the patient's needs from more of a holistic, psycho-social as well as physical aspect [NP] can manage more fully the whole impact of the patient's illness or wellness and also deal with the family.

On the other hand when the patient becomes more complex medically, [NP] then knows when to turn the patient over or consult with a physician, whether it's a one off consult, "what's your opinion" or it's a hand off consult, "this is beyond my scope of practice". The nurse practitioner role is in primary care management of episodic illness, chronic diseases, promoting wellness, education of patients and their families, as well as contributing to planning for the communities' needs from a health standpoint and providing some leadership with other members of the medical community including other health team members like physio, OT, other health nurses, LPNs, clerical staff.

NPs in all three settings worked full-time and spent at least 75% of their time providing direct patient care. In PHC 1, participants recognized that the NP managed more complex patients and practiced differently from the RNs. They also believed that, as a salaried employee, the NP spent more time with patients focusing on chronic disease management, health promotion, and self-care management. Similarly, participants in PHC 2 commented on NP3's ability to see the "big picture". They remarked that NP3 identified patients in need of community resources and collaborated with all members of the team, as well as community agencies. The NP in PHC 3 was described as the missing

piece to the team and that the NP complemented the efforts of other team members to provide comprehensive PHC to patients. Participants acknowledged that NPs spent more time with patients than FPs, and provided more patient education related to self-care management of health conditions.

I think in terms of the primary health care setting, they function sometimes better than the FP. Because nurse practitioners are not in a fee-for-service agreement, they have more time to spend with each patient and in terms of counseling services. [NP] would function in my opinion, better than family physicians can. Family physicians usually don't have enough time to fully counsel patients with regards to the conditions. It sometimes takes a few visits to go over all the details family physicians wants to go through. But with [NP] because of the freedom of time I think, [NP] offers a better service than family physicians.

The NP was also viewed as a competent, knowledgeable provider who offered comprehensive patient care and who was an asset to the overall team. Participants related that as they witnessed the NP's practice and their knowledge and understanding of the NP role increased, they developed trust in the NP's capabilities and saw the value of the role. The ability of team members to define the role within the context of the PHC setting required time and effort on the part of all team members and did not come easily or without consequences. The most drastic consequence was the resignation of two NPs on two separate occasions in PHC 2.

Finding Space. In all settings, NPs expected that they would have a physical space in which to practice. In PHC 2 NP2 was placed in the setting unexpectedly and in PHC 3 there was no prior plan for where the NP would practice. In both instances physical space had to be arranged after the NP was hired. A participant described the need to plan for space in which the NP would practice:

It is important to prepare the site ahead of time. By preparing, I mean look at what we are doing now and what is it going to look like when an NP comes. Rather than appending the role to the existing team, it involves the re-creation of the

whole team. Team development is important and it needs to begin before the NP is hired so there is a space for her or him when he or she comes in.

In PHC 2 NP2 did not have an office when first hired. At the time NP2 was placed in the setting, the team had recently relocated to a new building and was not anticipating the hiring of an NP. As a result, once NP2 was in the setting, the team had to rearrange space to accommodate an office and examination room for NP2's use. In PHC 3, once the NP was hired, the team had to reassess the most appropriate place for the NP to practice. After consulting with community stakeholders, they determined that the best place for the NP to see patients was in a community resource centre. It took four months for that space to be identified. Lack of physical space was a barrier to the NPs' practice because the NPs in PHC 2 and PHC 3 could not begin to practice until space was identified.

Finding physical space for the NP within the setting did not occur until the NP was hired. After the NP was hired, participants related that team members also spent time determining how the NP would fit within the team. A participant related the need to have designated space for the NP before the NP is hired:

There is a need to get the system clearer upfront and have designated room for an NP. It is not fair if the nurse practitioner doesn't have a decent examination room. The nurse practitioner is part of the team and everyone should have a working station. The nurse practitioner needs a room like FPs. They need to have an exam room with curtains and everything.

Participants thought there should have been a system in place for planning for the NP by designating physical space where the NP would practice before the NP was hired.

Planning for the addition of an NP took on a different dimension in PHC 1.

Long-Term Planning. Although planning for the role took place in all three settings, early planning efforts were limited to senior health authority managers and FPs

in PHC 1, senior managers who developed and submitted a proposal that was funded through the PHCTF in PHC 2, and the district manager in PHC 3. Other team members were aware of the plans to hire an NP in PHC 1 and PHC 3 and while they were not involved in the early discussions of how an NP could function in the setting, this was not problematic.

PHC 1 was established as a 24 month demonstration project. As a demonstration project there was no guarantee from the health authority that the NP would be in the setting over the long term. All participants were aware that the NP was hired as part of a demonstration project; however, 18 months into the project senior health authority managers had not communicated with the NP or others as to plans for continuing the project or converting the position into a permanent position in the setting. Without knowledge of the health authority's long term plans, participants were unsure of the sustainability of the role. This lack of knowledge of long term plans for the role contributed to the NP's decision to not admit any new patients into the NP's practice until the future of the role was identified.

While the issue of long-term planning did not affect PHC 2 or PHC 3, because the NPs were approved and funded as permanent positions, the issue of planning was repeatedly raised and lack of involvement in the plans to hire NP2 was problematic for team members in PHC 2. A participant described one perception of the planning process as:

The NP applied for the position, interviewed for it, found out that [NP] had it and then said to them, okay what do you want the NP to do? How does [NP] do this? What do we do? I don't know that there was a lot of planning or discussing what the NP would do. I think there were meetings with the health authority surrounding the fact that [NP] was coming but I don't think that anybody actually

sat and planned what the NP role would be. And if they did, it changed very quickly.

In all three settings participants identified the need to plan for the addition of an NP, to identify expectations, and to plan space for where the NP would practice before the NP was hired. A participant described recommendations for planning for the implementation of the role in the future this way:

What I would do differently? First of all we still have a ways to go before we can take a package that says “all of these things have to be done in this order when the nurse practitioner starts” so that on the NP’s first day everything is in place and be smooth sailing. If all the planning is done before the NP is hired, on the first day of work the NP will have a computer and know how to get into it and be able to bill for services. Everybody will know what the role is. So any ground work toward that getting these things done would be done prior to the NP starting work.

Maybe better exploration of what the clinic thought the role would be. Although, sometimes it’s nice for them to evolve it on their own, because it did make the nurse practitioner, the office managers, all of the clericals and the physicians to all do a little PDA (plan, do, act) cycle, though they wouldn’t call it that. But to actually work through it and see what works best. Because I’m not sure that you can really mold it you know beforehand. However I think that we need to make sure that everybody is clear on what the potential is and what a nurse practitioner’s role is and where they could be used. But I wouldn’t want to be too stringent on what they’re going to do because I think it changes.

Involvement of Managers, Physicians, and Other Staff in Role Implementation

As mentioned previously, few team members in the three PHC settings were involved in the early stages of implementation when plans were first being made to hire an NP. Participants in PHC 1 and PHC 3 were aware that discussions to hire an NP were taking place or a proposal had been submitted, but they were not involved in those early discussions or writing the proposal. In these two settings, according to participants, it was not problematic that they were not involved early in the process. On the other hand, in PHC 2 lack of team involvement in the decision of when to hire another NP after NP1 resigned was problematic. A participant remarked:

We all knew from day one there would be an NP. So it wasn't a surprise that another nurse practitioner was being hired. But the way in which the NP came in was not particularly clear and in hind sight that made it even harder. Somewhere along the way somebody's communication went a bit astray.

Early involvement of team members was important because without it there was no opportunity for team members to discuss expectations or develop shared understanding of the role. Participants in PHC 2 related they were less invested in the process because of their lack of involvement in the plans to hire NP2. In each setting after the NP was hired other team members became involved in various ways.

In PHC 1 the NP mailed letters to community providers describing the role; however, once medical specialists received patient referrals from the NP or a patient presented prescriptions written by the NP to local pharmacies these providers called the NP's office asking for clarification of the NP's role. Others in the office such as the business manager and the RNs were involved in fielding these calls. In PHC 2 after NP3 was hired team members were involved in discussions of which patients to schedule appointments with the NP. In PHC 3 the manager and lead RN were involved in identifying community service agencies that provided services to the same population with whom the NP worked.

Community Involvement. In PHC 1 people living in the community or other community providers were not consulted or advised of plans to hire an NP. Nevertheless, the NP role was new in the community and without early community involvement or an announcement these stakeholders had no knowledge of the NP's capabilities or presence in the community. In PHC 2 by the time NP3 was hired announcements were mailed out to community health care providers advising them of the addition of an NP to the team of providers. Alternatively, in PHC 3 discussions were held with FPs and members of

community agencies who were also involved with caring for people with mental health and addictions before the NP was hired. A participant described the process used to include these stakeholder groups as:

We pulled together groups of people that were related to people with profound mental health problems. We talked to hospital nurses, some of the local First Nations workers that have history of working with these people, the Friendship Centre, a few clergy people, and local doctors.

Although there was limited involvement of community stakeholders in each setting from no involvement before the NP was hired (PHC 1 and PHC 2) to discussion (PHC 3), this analysis identified the importance of early involvement of various community stakeholders in the process.

Moreover, in all three settings, people who were patients in the practices were unaware of the NP role and participants acknowledged that they needed to encourage patients to schedule an appointment to meet and get to know the NP. Patients needed to trust the NP before they allowed the NP to provide their care and there were times when patients were unwilling to schedule an appointment with the NP as a participant described:

Occasionally I would take a call from a patient and they would want a doctor and I would say “our nurse practitioner could handle your problem” and they would go “no I want a doctor.”

NP Mentorship. Because NPs in PHC 1 and PHC 2 held provisional registration when hired they needed to be mentored by either a registered NP or an FP. As well the NP in PHC 3 was fully registered but a novice NP who also needed mentoring. There were no registered NPs in any of the settings at the time they were hired; therefore, FPs mentored the NPs. In PHC 1 and PHC 3 FPs were involved in early plans for hiring an NP. The FPs in PHC 1 were aware that they would need to mentor the newly hired NP

because they had been involved in mentoring this same NP as a student. Likewise in PHC 3 several fee-for-service FPs were involved in early discussions of the role; however, those early discussions took place more than a year before the NP was hired. Many of the FPs that had been in the community when the NP was there as a student or were involved in the early discussions had moved away by the time the NP was hired. Therefore, after being hired the NP had to become acquainted with fee-for-service FPs in the community for two reasons: one, for introductions and to establish relationships with them and two, because this was the NP's first NP position after graduating from university and therefore needed mentoring. In PHC 2 FPs who were not involved with NP role implementation before the NP was hired became involved when they were asked by the clinic manager or other FPs in the setting to mentor NP2, and after NP2 left to mentor NP3. A participant described this process as:

We attached [NP] to a physician. We had a schedule of different days of the week when the nurse practitioner would be assigned to different physicians so that all the physicians had a chance to work with [NP]. And I think that worked for all intents and purposes.

Another participant described mentorship the way:

When the role was established we had team meetings on how this would work. On the daily schedule there would be an [NP] go-to person so that [NP] would know who to go to. As a temporary (provisional registration) nurse practitioner [NP] had a physician mentor and they booked weekly time for the first couple of months. As time went on [NP] didn't need that much time for consultations and now [NP] consults with any doctor for quick questions.

FPs involved in mentoring the NPs needed to clearly understand the role and how the NP was expected to function. In all three settings FPs and NPs worked together to identify the NPs' learning needs. A participant provided an example:

Initially for mentorship [NP] asked to work in the physician's clinics. We knew that this wouldn't be long-term, probably 6 weeks to two months. This time also helped to build relationships between the physicians and [NP].

In addition to FPs involvement in mentoring NPs, managers also played a key role in supporting the NPs in all three settings.

Manager Involvement. Involvement of the managers of all three settings was critical. In general, managers supported novice NPs to identify space in which to work, obtain equipment and meet key stakeholders. For instance, the district manager of PHC 3 supported the novice NP to gain experience by traveling outside the area to spend time with other NPs. Moreover, the managers in all three settings supported the NPs to participate in the community of practice and facilitated discussions of how the NP could be used in the setting. A participant described the manager's involvement:

Well I think advocating for the role and trying to negotiate and understand where everyone was coming from because everybody has their own world to live in. Trying to figure out how to best meet everybody's needs and still ensure that the patient gets the test and the nurse practitioner has the information needed to manage patients. And also advocating for the nurse practitioner role and paving the way for other nurse practitioners to come.

I felt that [manager] was really trying to be supportive and trying to understand the role. [Manager] would listen and try to facilitate team discussion.

In the event managers were unable to answer team members' questions or concerns related to how to use the NP, such as in PHC 1 and PHC 2, they looked to senior health authority managers who had been responsible for establishing strategic direction for NP role implementation to clarify organizational intent.

Conversely, there was turnover of health authority managers when the NP in PHC 1 was first hired. Lacking a manager to assist with clarifying expectations, the NP and others in the setting felt unsupported by the health authority during their early efforts to establish how the NP would function.

This was not the case in PHC 3 where the manager was experienced with the NP role and was able to garner support for the role from other community providers before the NP was hired and after the NP was hired was supportive and actively involved in introducing the NP to various community agencies and providers which facilitated acceptance of the role.

Stakeholder Acceptance of NP Role Implementation

The health authority included the NP role in its strategic plan. Including the NP as an initiative to increase patient access to care implies acceptance of the role at an organizational level. In the PHC settings, according to participants, team members needed time to become acquainted with the NP and gain a better understanding of the role before accepting the NP as a new team member. A participant described one way this was accomplished:

We had a number of meetings with the nurse practitioner and the team, the nurse practitioner and the physicians, reviewing the standards, limits, and conditions of the role and all that sort of stuff and really trying to be clear about what the nurse practitioner could do.

As well, community providers, such as medical specialists, wanted to become acquainted with the NP's competencies and scope of practice before acceptance occurred.

Team members' acceptance of the NP role was influenced by their involvement in clarifying the intentions for the role and their increased understanding of what the NP would do in the practice setting and trust.

Everyone needs to trust the nurse practitioner and if they trust that the nurse practitioner knows what he or she is doing, they're a little more comfortable.

Other factors such as prior knowledge of the NP, the NP's personal attributes, and patient acceptance also contributed to the team's willingness to work with the NP.

In all three settings, the NP had previously spent time in the practice setting or in the community in which the setting was located as a student NP. Prior knowledge of the NP, as an individual, facilitated team acceptance of the role. The NP in PHC 1 spent 820 practice hours in the setting, and in PHC 2 NP3 spent 120 hours and also worked in the centre as an RN. The NP in PHC 3 spent 400 hours in the community and although not known by the mental health care team, the NP knew the community which facilitated the NP's willingness to accept the position.

In PHC 2 the team had difficulty accepting NP1 and NP2 because they had no prior knowledge of either NP and did not understand how to use their capabilities. This likely contributed to both NPs leaving for other positions. NP3 was known to the team as an RN and as a student NP prior to being hired, and thus acceptance of the role developed more quickly as a result of knowing NP3 as a participant described:

[NP] had been working here as a nurse and been on the team. We knew that [NP] was attending a nurse practitioner program and hoped to transition into a nurse practitioner role somewhere. When the position came up we were quite aware of the timing and honestly I think that we all hoped that [NP] would end up here. We knew [NP] and very much respected [NP's] abilities and enjoyed [NP's] personality.

Prior knowledge of the NP that occurred through student placements or the student NP working in the setting as an RN, gave team members an opportunity to establish a relationship with the NP, become aware of the NP's capabilities, and for trust to develop between the team and the NP. Participants commented that the NP's personal attributes also contributed to their willingness to accept the role. Various participants described the NPs as knowledgeable with good communication skills. As well, the NPs assumed a leadership role in working collaboratively with other team members.

Acceptance of the NP role by health care providers, such as medical specialists,

FPs, and pharmacists was facilitated by team members who actively worked with these stakeholders to address their concerns and clarify the NPs' competencies and scope of practice either before or after the NP was hired. A participant gave examples of issues with medical specialists:

One medical specialist that [NP] referred a patient to said "I don't take referrals from NPs." And I said "Well you took one before!" and that referral letter must have been written very well. And I truthfully, didn't have the energy that day to fight so the manager actually mentioned to [the medical specialist] when they were meeting for some other reason. This specialist is also in charge of the [specialist] team and would bring it forward to the other medical specialists. And I thought, oh good that can be [the medical specialist's] fight, not mine.

[NP] has had to phone the emergency room a few times to get patients seen and possibly admitted. It had been an appropriate referral. They had been admitted for serious issues and [NP] always sort of picked up the phone and talked to the emergency room physician with a bit of trepidation, is this going to be "Who?", "What?" "Why should I listen to you?" They have all been wonderful. And, not always warm and fuzzy but once [NP] finished the story they acknowledged and that has probably been some personal angst for [NP] but it has worked out. When we get referral letters back sometimes they're addressed to Nurse [X], sometimes [the name of the NP], nurse practitioner, sometimes they're addressed to Dr. [X] and sometimes they're just addressed to [X]. So I don't know if that's a template issue, a knowledge issue or I don't know. We've also had feedback from patients via the specialist who said to the patient "good call".

Patients in PHC 3 typically did not accept health care providers who were unfamiliar to them. It took time for patients in this setting to trust the NP to provide their care. This was true in the two other settings as well in that patients needed to become familiar with the NP before they were willing to continue to see the NP for care. Without patients' prior knowledge of the role, or an understanding of how NPs functioned, establishing trusting relationships in all settings took time. Despite initial hesitation on the part of patients, once they were acquainted with the NP in all settings they were satisfied with the care they received as described by this participant:

The patients took to [NP] quickly. And I don't think we were really surprised at that. Once they realized [NP] could do everything a doctor could do and once they met and saw the extra time and care [NP] gave they were satisfied. Patients liked [NP's] caring approach and that they didn't feel rushed. [NP] explained things very well in terms they could understand. [NP] is very knowledgeable and that was obvious to them. [NP] knew what [NP] was talking about and they felt very confident in what [NP] told them.

As mentioned previously, before the NP was hired most participants in all three settings had a limited awareness or knowledge of the role. Team members' acceptance of the NP as a team member occurred after the NP was hired. In PHC 1 and PHC 2 where the NP was known to the team before being hired acceptance of the NP happened more quickly. Although they may have been accepting of the idea of an NP, as indicated in PHC 3 and in PHC 1 it was only after the NP was hired that acceptance of the individual NP occurred. Although not originally identified as a stakeholder in my original conceptual framework (Figure 4, Chapter 3), my data analysis indicates that involvement of community stakeholders and their knowledge and awareness of the NP role facilitated their acceptance of the role.

Accordingly, involvement of stakeholders clearly influenced acceptance of the role. Acceptance of the role by all stakeholders was closely connected to their prior knowledge of the individual NP, and their involvement with clarifying the intentions for the role.

NP Enactment of the Role

Implementing the NP role was influenced by how well others understood expectations for the role and their acceptance of the NP. Acceptance was influenced by prior knowledge of the NP and involvement in determining how the NP would function

in the setting. In turn, the ability of the NP to actually carry out expectations and enact the role was influenced by how the role was implemented.

CRNBC (2003/2010a) recognizes NPs as “health professionals who have achieved advanced nursing practice competencies at the graduate level of nursing education (CRNBC, 2010a, pg. 4). CRNBC developed the original NP competencies in 2003. At that time advanced practice nursing competencies were identified as clinical practice, collaboration, research, leadership and change agents. In 2010 CRNBC revised the advanced nursing competencies to include clinical, research, leadership, and consultation and collaboration. In the 2010 revision change agent was incorporated into other competencies and consultation was added to collaboration (CRNBC, 2010a). At the time of this study (2009) the competencies had not been revised. Therefore, I used the original advanced practice nursing competencies (clinical practice, collaboration, research, leadership and change agent) to guide data collection and analysis.

CRNBC identifies advanced nursing competencies as core competencies that all NPs are expected to exhibit in practice. The competencies of research, leadership, collaboration and change agent are not legislated competencies. Legislated competencies include diagnosing, managing acute and chronic health conditions and prescribing pharmacotherapeutics as outlined in CRNBC’s scope of practice document (CRNBC, 2010b). NPs in BC are expected to simultaneously exhibit all advanced nursing competencies. Research question 4 of this study relates to how NPs were enacting not only clinical competencies, but the other advanced nursing competencies. During my interviews NPs were asked to describe how they were enacting the competencies of leadership, collaboration, research and change agent. I also asked other participants to

define the role in an effort to obtain their perceptions of how the NP functioned. The health authority's intent for implementing the NP role was to increase access to care, improve patient outcomes and the functioning of multidisciplinary teams as this participant relates:

The health authority wants to see NPs improving patient access and improving patient outcome.

Clinical Practice. The NP in PHC 1 was originally hired to work with FPs co-managing patients who had chronic diseases, in PHC 2 NP3 was responsible for caring for frail elderly patients and in PHC 3 the patient population was people with mental illnesses and addictions. The primary expectations of NPs' were to provide direct patient care. As a result of this expectation NPs spent the majority of their time directly providing patient care. The NP in PHC 1 spent about 75% of the time in direct patient care, in PHC 2 NP3 spent 95% of the time, and in PHC 3 the NP spent 70% of the time providing direct patient care. Therefore it was not surprising that participants most often identified the clinical aspect of the role:

I would define it as augmenting the physician's role in a different way than a regular nurse does in that they can do much more complex types of things. NPs have their own patient base and their focus in a different direction than the doctor.

[NP] is a care provider--a primary care provider. [NP] is looking after patients in the same way that a doctor would. [NP] does have some limits on what nurse practitioners are able to do but [NP] is providing as good care if not better and the continuity of care is there for patients.

In this section of my cross case analysis to maintain anonymity when I use quotes from NPs I do not designate the PHC setting.

Leadership. In all three PHC settings NPs assumed a leadership role in helping others to understand their knowledge, skills and capabilities. Team members were unfamiliar with the role and looked to the NP for guidance and NPs helped others to

better understand the role. For example, NP3 in PHC 2 developed a flyer that team members gave to patients and also used to explain the role. In PHC 3 the NP initiated the discussion of establishing a drop-in clinic in the Resource Centre and in PHC 1 the NP made the suggestion to others that the retired FP's patients could be cared for by the NP. Participants recognized NPs as self-motivated with good communication skills. A participant identified the NP as:

[NP] was very self directed and did quite a bit on [NP's] own. [NP] sold the position to others so that [NP] was accepted personally.

NPs also felt they had the opportunity to exhibit leadership in their roles as they determined the most appropriate place to set up a practice, sent out letters to other health care providers in the community and established relationships with FPs and other team members. A participant related how an NP exhibited leadership by:

Looking at patient populations and trying to help the team to understand some options about how they could deliver care differently. So participating in a COPD group with one of the physiotherapists because that was a population that was of interest to [NP] and was underserved. It was serendipitous that there's also a program happening through respiratory services that we could build on to help these patients.

However, this was not the case with all NPs. In PHC 2 NP1 was not able to practice as an NP because of lack of regulation and legislation for the role. NP2 was in the setting as a fully registered NP for two months before resigning. A participant described these limitations this way:

[NP] didn't have an opportunity to exhibit leadership skills. [NP] tried to express some ideas and wanted to contribute to how the role could be enacted. There was some openness to discussion but there were also expectations on the part of the centre of how the role was to be enacted. [NP] felt limited in discussions of the role.

Because others did not understand the role at the time NPs were hired they expected NPs to assume a leadership role in helping others to understand it. This did not happen in all situations as a participant related:

I guess what I expected at the time was [NP] would just jump in and know what to do. At that time we were all trying to figure out our roles but [NP] wasn't assertive and seemed to be content to go along and do what [NP] thought the FPs wanted [NP] to do. There was a lot of dialogue back and forth between [NP] and the manager and the doctors at the time. Because we have an electronic medical record and there was a lot of data stuff that needed to be enter and there was no manpower to do it so it fell to [NP] to do it and I think [NP] resented that.

With the exception of PHC 2 where there was turnover of NPs as previously discussed, the NPs indicated that once hired, they assumed a leadership role in efforts to continue the implementation process. NPs helped other team members to understand how the role could be used, and were involved with community stakeholders by answering their questions related to competencies and scope of practice. Nonetheless, their ability to enact this competency was influenced by team members' understanding of expectations for and acceptance of the NP role.

Collaboration. An expectation of CRNBC is that NPs will work collaboratively with other health care providers. NPs in all three settings were able to demonstrate this competency by working collaboratively with other team members and community agencies. A participant provided an example of team collaboration:

I know that [NP] also works very collaboratively with the nurses and I think they all have a good working environment. They learn from each other, they share ideas, they ask questions so it's actually really stimulating for them because one of them may have seen that patient in a previous visit and by the way [NP] you may want to know this about Mrs. B. I think there is a real open door there and a willingness to focus on the patient care issue first.

Furthermore the NP in PHC 3 collaborated extensively with other community service agencies providing care to patients with mental illness and addictions. In PHC 2

NP3 collaborated frequently with the Alzheimer's Society and the Arthritis Society and in PHC 1 the NP collaborated with home and community nurses. In all settings they collaborated with medical specialists, although the NP in PHC 3 had fewer opportunities for this. A participant described collaboration between the NP and FPs in the PHC setting:

The physicians actually go to [NP] and say "you're up to date, what do you think or what do you know about this recent stuff? Are there any changes here?" So it's two-way collaboration. They go to [NP] and ask for information and input and [NP] does the same with them.

Equally important CRNBC's scope of practice for NPs determined the types of health problems NPs were able to assess, diagnose and treat, and medications they could prescribe. NPs encountering health problems and medications outside their scope of practice consulted or collaborated with the most appropriate health care provider which oftentimes was an FP or medical specialist. Therefore their scope of practice precipitated collaboration or consultation between NPs and FPs. A participant related this process:

There are things that are outside [NP's] scope of practice. [NP] has to have a physician write patient's narcotic prescriptions. If [NP] wants to have tumor markers done [NP] has to have a physician order them.

The NP in PHC 2 was part of an integrated health network which provided access to a variety of resources and providers to assist with patient care. In addition to community resources which included social workers, occupational therapists, physiotherapists and others, there was also the need to collaborate with patients' families. A participant related:

Another part of collaboration with an older population is with families who are involved in the care but not present in the locale. [NP] communicates with families through e-mails, and a great number of phone calls.

In PHC 1 the NP had difficulty collaborating and consulting with medical specialists who did not understand the role, and pharmacists who were also unaware of the role and questioned the ability of the NP to write prescriptions. Therefore, there is some indication that the ability of an NP to collaborate was influenced by stakeholders' knowledge and understanding of role expectations, their involvement in the implementation process in some way, and their acceptance of the role.

Research. According to CRNBC's competencies (RNABC, 2003), NPs are expected to utilize evidence to guide and inform their practice, incorporate current guidelines and implement research based innovations to improve patient care, as well as collaborate with others to identify opportunities for research. There are many clinical practice guidelines that are available to health care providers in BC, as well as resources available from other professional organizations and journals. NPs are responsible for maintaining competency to practice, and, if not initiating or participating in research, utilizing knowledge generated by other researchers to inform their practice. NPs related that they used several resources to maintain their competency to practice. A participant gave the following examples of ways NPs could access knowledge:

There is Medscape and other online CME (continuing medical education) offerings and *UptoDate* and those kinds of things, as well as clinical guidelines.

As well NPs in the PHC settings included in this study were participating in research by volunteering to be interviewed. In addition to this study they also participated in other studies that were going on in the province either by completing self-administered surveys or interviews.

As professionals NPs are expected to maintain currency in practice. Data from this analysis supports that NPs are utilizing current knowledge for this purpose. In this

study there was no indication that their ability to utilize or participate in research is influenced by how well stakeholders are involved in NP role implementation or knowledge and acceptance of the role. However, because of the remoteness of PHC 3 the NP had difficulty accessing ongoing continuing education that was offered in other locations.

Change Agent. NPs in all settings were able to affect change in a variety of ways. In PHC 1 the NP collaborated with one of the FPs in the practice to establish specialty care for patient with renal impairment. As a result of this, others in the practice became more aware of the need to screen for renal impairment. Patients with newly diagnosed diabetes were seen by the NP for health education more quickly than if they waited to attend the diabetic education classes in the community. In PHC 2 NP3 established group visits along with a respiratory therapist for people with chronic pulmonary diseases and in PHC 3 the NP established a new access point for care of people with mental illnesses and addictions. Participants remarked that they valued these attributes that the NP brought to the team. A participant described how the NP worked with others to increase their awareness of current practice guidelines:

[NP] is a good resource and a boost to the nurses and helping them to focus on things more whereas before they might put it in the background because they didn't have time. And making them realize that they need to upgrade or read and that sort of thing.

There was some evidence that the ability of the NP to function as a change agent was influenced by how well others understood and accepted the role. However, there was an ongoing need for NPs to continue to explain the role to new patients and to new team members and FPs who were unfamiliar with the role. A participant remarked:

There are different apprehensions about what an NP does. Some of the new physicians are from another province and yes they've worked with NPs but in Ontario. So it looks different. They're surprised by what nurse practitioners can do here. Some of the others, are just in terms of style and their idea is that the nurse practitioner is coming to them looking for teaching. But the nurse practitioner may not be looking for teaching, but looking for confirmation perhaps or just a little extra input into decision making. [NP] might say "I have option A, option B, which would you think would be best?" And then we have a new physician who has just started and we just had a quick conversation about it. "Have you worked with nurse practitioners before?" "Well not really." I think he was not clear on the difference between an RN and a nurse practitioner.

Before the NP was hired, participants in all practice settings had difficulty envisioning how the NP could be used and with understanding the NP role. After being hired, the NP worked with the team to help them better understand the contributions an NP could make. Acceptance of the NP, involvement of team members and community stakeholders, and clearly identified intentions for the role were identified to some degree as factors that influenced the NP's ability to enact the advanced practice nursing competencies of clinical practice, leadership, collaboration and change agent.

Summary of Key Findings

My analysis of the data indicated the following key findings:

1. Although the health authority responded to the MOH's policy directive to implement the NP role by establishing strategic directions, once the NP was hired team members in the PHC settings needed to clarify the health authority's intentions for the NP role.
2. Unexpected changes in patient populations and/or in the context of the practice setting influenced intentions for the NP role.

3. In the early stages of implementing the role and shortly after the NP was hired, team members in the PHC settings wanted support and guidance from the health authority to clarify intentions for the role.
4. Community stakeholders wanted to be involved in the process of implementing the NP role.
5. Acceptance of the NP in PHC settings was facilitated by team members' prior knowledge of either the role or the individual.
6. Community stakeholders' acceptance of the role developed as they gained knowledge and understanding of the role.
7. There was a need to plan for the role before the NP was hired and long-term planning after the NP was hired.
8. Although relatively new in their roles, NPs were enacting, to some degree, all competencies of the role as defined by CRNBC.

The propositions for this study were:

1. Clearly identified intentions for the NP role by managers, physicians, other staff, and NPs influence the process of NP role implementation.
2. Greater involvement of key stakeholders, such as, managers, physicians, other staff, and NPs influence the success of the process of NP role implementation.
3. High levels of acceptance of the NP role by managers, physicians, and other staff positively influence the process of NP role implementation.
4. Involvement and acceptance of managers, physicians, and other staff in the implementation process and clearly identified intentions for the NP role influence the ability of the NP to enact all role domains.

Relating the Case to the Propositions and Conceptual Framework. Through the with-in and cross case analysis, I identified the concepts of intention, involvement, and acceptance in each setting. In each setting there was variation in the degree of stakeholder engagement. I did not identify community members as stakeholders in the original conceptual framework but my analysis revealed the need for other health professionals such as medical specialists, pharmacists, other community agencies, and patients to be aware that NPs were hired and their role and responsibilities which in turn facilitated acceptance of the NP role by these groups.

In all settings before the NP was hired, stakeholders had a limited role in establishing intentions for the NP role; however, once the NP was hired, others assumed an active role in clarifying intentions. Likewise, there was limited stakeholder involvement and acceptance before the NP was hired. Once the NP was hired, others became involved in role implementation, and acceptance by multiple stakeholders resulted.

All stakeholders I originally identified for inclusion in the study contributed in some manner to implementing the role. Community stakeholders were not included in the original conceptual framework; however, findings from PHC 1 and PHC 3 demonstrated the need to involve community stakeholders in the implementation process.

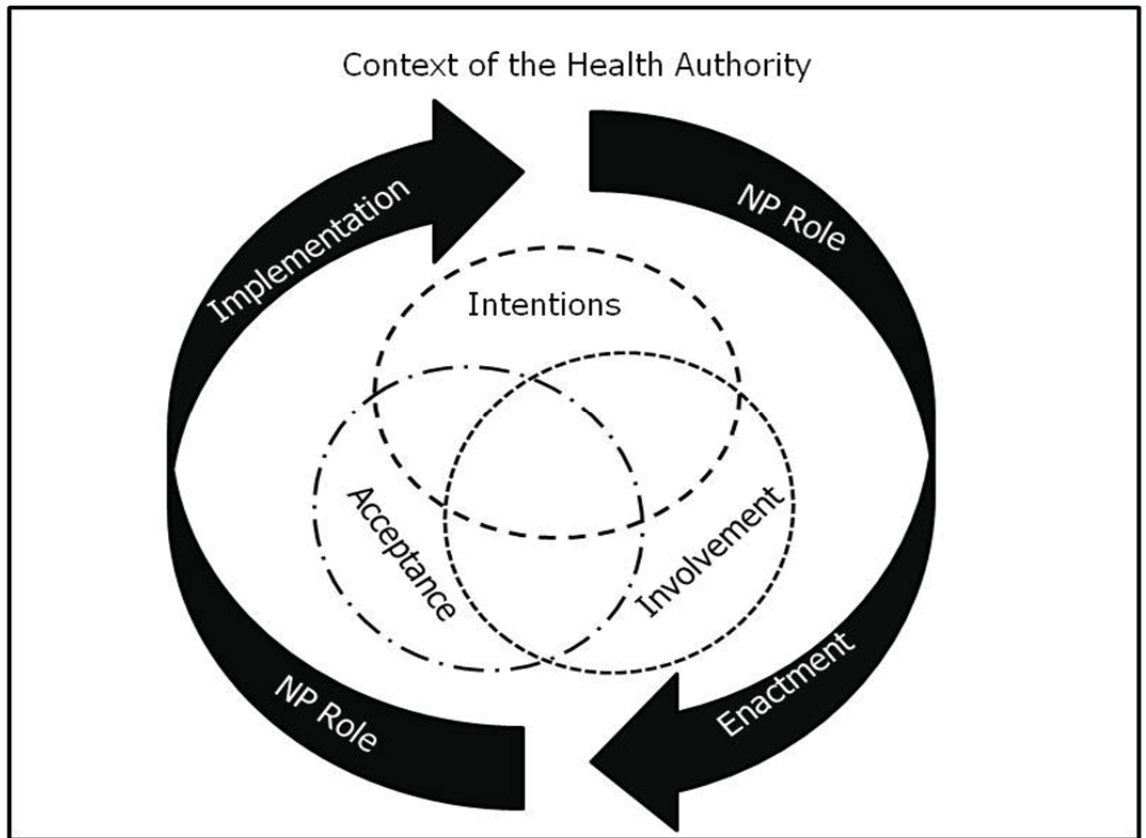
Finally the NP's ability to enact the advanced practice nursing competencies of leadership, collaboration, research, change agent, and clinical practice was to some degree influenced by how well stakeholders understood and accepted the role and their involvement in implementation.

Therefore, the findings support all the propositions to a degree. An unanticipated finding was the need for greater involvement of community stakeholders.

Conceptual Framework. An early rendition of the conceptual framework (Figures 4, Chapter 3) depicted the concepts as separate, implying that they influenced implementation with no relationship among the concepts. Locating the process of role implementation in a rectangle gave the appearance that the process was static. In Figures 9, 13, and 15, I demonstrated how the context of each of the PHC settings contributed to the complexity of NP role implementation and included new attributes of the concepts that emerged through data analysis of the sub-units. New attributes of intention included the need to clarify intentions, find space for the NP to practice, and have a long-term plan for the role. Attributes of involvement included the need for community involvement and mentorship of a novice NP and prior knowledge of the NP contributed to acceptance of the role.

Figure 17 depicted the conceptual framework with the concepts located between NP role implementation on the left and NP role enactment on the right demonstrating how the concepts simultaneously influence implementation and role enactment. While the earlier framework appeared linear, analysis identified the iterative nature of the process of NP role implementation. Figure 18, the final conceptual framework, demonstrates the iterative nature of the implementation process. In this final version, the three concepts overlap indicating that they simultaneously influence the process of NP role implementation and the ability of the NP to enact the role. The implementation process is represented by the arrow to the left of the concepts and NP role enactment is represented by the arrow on the right.

Figure 18. Revised Conceptual Framework



Summary

In this chapter, I described the findings of my study beginning with with-in case analysis followed by cross case analysis. I related the concepts of intention, involvement and acceptance to how the need for the NP role was identified, how role expectations were determined, and how NPs were recruited and hired in three PHC settings therefore influencing the process of NP role implementation. I related my analysis to the study propositions and revised my original conceptual framework to reflect my understanding of the process of NP role implementation. I also summarized my key findings from the study. In the next chapter I discuss my interpretation of the study findings and the limitations of the study. I also discuss recommendations and implications of this study.

CHAPTER 6 DISCUSSION AND RECOMMENDATIONS

In this chapter, I discuss the interpretation of this study along with its strengths and limitations. The purpose of this single case study with embedded units of analysis was to explain how the concepts of intention, involvement, and acceptance influenced NP role implementation in PHC settings in one health authority in BC. Findings from this study not only contributed to an understanding of how the role was implemented, but also revealed influencing factors not previously identified.

Propositions that emerged from the review of the literature were that clearly identified intentions for the NP role by managers, physicians, other staff and NPs influenced the process of NP role implementation; greater involvement of these stakeholders influenced successful implementation; high levels of acceptance of the NP role by stakeholders positively influenced the process of role implementation; and that key stakeholder acceptance and involvement in implementation and clearly identified intentions for the role influenced the ability of the NP to fully enact the role. These propositions were used to construct a conceptual framework and identify the research questions that guided this study.

The study's research questions were:

1. How do intentions for NP role implementation identified in PHC settings influence the process of NP role implementation?
2. How are managers, physicians, other staff, and NPs involved in the process of NP role implementation in PHC settings within the health authority?

3. How does acceptance by managers, physicians, and other staff of the NP role in PHC settings within the health authority influence the process of NP role implementation?
4. How are NPs enacting the role domains of clinical practice, collaboration, research, leadership, and change agent in PHC settings (CRNBC, 2003)?

In order to answer these questions and to understand and to explain the process of NP role implementation as it was occurring in PHC settings from a range of perspectives, I chose a qualitative case study (Yin, 2009). I used a single case study of one health authority that was purposively selected with three embedded units of analysis. The process of NP role implementation was the case studied. Three PHC settings where the NP role had been implemented for at least six months were also purposively selected. Managers of the PHC settings, NPs, other staff and FPs who practiced with the NP were recruited and those who volunteered were interviewed in one face-to-face interview or by telephone. Pertinent documents were also purposively selected for review.

Legislation enabling the role and CRNBC's registration of NPs was passed in 2005. BC was one of the last jurisdictions in Canada to implement the NP role. Previous studies identified restrictive legislation and regulation and NP education as barriers to implementation (DiCenso et al., 2003; Goss Gilroy, 2001). Using evidence from studies conducted in BC and building on the experiences of other Canadian provinces, Master's education was required for entry to practice (CRNBC, 2006a; MacDonald et al., 2001) and legislation was created that allowed NPs to function autonomously without restrictive lists of pharmaceuticals and diagnostic tests (Schreiber et al., 2003). Having removed

these major systems level barriers, it was unclear what other factors would influence the process.

As an experienced NP, I thought I understood the process of implementing new NP roles. I had, after all, practiced as an NP for many years and had been involved in early efforts to implement the role in one American state and another province in Canada. Although I had experiential knowledge of this process, I lacked the ability to explain what happens when NPs are hired in PHC settings that are unfamiliar with the role. What I learned from the participants in this study is that implementing the NP role into PHC settings necessitated a complex chain of reciprocal interactions between the health authority and the setting, as well as between the community and the setting (Helfrich et al., 2007; Palumbo & Oliverio, 1989). My knowledge and understanding of the implementation process were enriched by the participants involved in this study.

Complexity of Implementation

Because the NP role was not an established role in the health authority at the time of this study (2009), team members in PHC settings with varying levels of understanding and perceptions of the role were involved in its implementation. When the role was first introduced to the setting, team members did not have a clear understanding of it and were unfamiliar with expected behaviours of NPs. Therefore they did not know what to expect of the NP or how the NP would function as a new team member. Their unfamiliarity with the role contributed to the complexity of the implementation process I described in Chapter Five.

Implementation can be described as the transition period following a decision to adopt an innovation (Helfrich et al., 2007). Context, environmental issues, and the

characteristics of the individuals involved influence implementation. Factors such as the degree of commitment to the program by those implementing it, the presence of change agents, the political environment, governmental structures, cultural traditions, and the organizational arrangement in each location influence implementation. Given the complexity of implementation, changes to the original intent of a policy or program are not uncommon (King et al. , 1987; MacDonald, 1998; Palumbo & Oliverio, 1989; Pressman & Wildavsky, 1984).

For the purpose of this study, I defined implementation as the process used by the health authority to add an NP to the health care team in PHC settings. Components of the process included identifying the need for the NP role, determining how the role functioned, and accepting the new role into the team. Inherent in the process was the need to interpret and link the process used in PHC settings with the health authority's intention for the NP role.

At the beginning of this study, I conducted an integrative review of the literature and identified factors that influenced NP role implementation in Canada (Sangster-Gormley, Martin-Misener, Downe-Wamboldt, & DiCenso, 2011). Previous researchers identified barriers and facilitators to the role such as role clarity, team involvement, and planning for the role (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001). In the review I identified three concepts that influenced implementation: involvement, acceptance and intention. I defined involvement as stakeholders actively participating in the early stages of implementation. Acceptance was defined as recognition and willingness to work with an NP. Intention relates to how the role is defined (Sangster-Gormley et al., 2011). Using

these concepts, I developed a conceptual framework (Figure 4, Chapter 3) depicting the concepts of intention, involvement, and acceptance as separately influencing NP role enactment and the process of role implementation.

In this study I was able to verify that the three concepts influence implementation of the role and the ability of the NP to enact the role as well as the need to consider intention, involvement, and acceptance simultaneously throughout the implementation process. The final conceptual framework (Figure 18, Chapter 5) demonstrates the interconnectedness of the concepts. I explain this interconnection later in this chapter.

The PEPPA framework informed my early reflection on how NP roles were implemented in health authorities in BC (Bryant-Lukosius & DiCenso, 2004). The framework is a systematic, evidence-based approach to guide NP role implementation. The concepts of intention, involvement and acceptance identified for this study build on Steps 6 and 7 of the framework, which relate to initiating an implementation plan and hiring an NP. Therefore, I did not focus on Steps 1 through 5 of the PEPPA framework that relate to structural aspects of the role such as the need to define the patient population, identify key stakeholders that need to be involved in early discussions, and determine goals for changes to the model of care (Bryant-Lukosius & DiCenso, 2004; Charbonneau-Smith, McKinlay, & Vohra, 2010).

However, findings from this study support the need to involve key stakeholders in defining role expectations which also contributes to their acceptance of the role. As previously mentioned, the health authority did not use the PEPPA framework or an implementation toolkit to guide its implementation process. If they had used it, these factors would have been considered beginning with Step 1 of the PEPPA framework and

before the NP was hired. I found that instead of these actions occurring before the NP was hired they occurred afterwards, which actually delayed the ability of the NP to begin working as well as other delays previously discussed.

According to Palumbo and Oliverio (1989) implementation can be adaptive and evolve during the implementation process. This study demonstrates that the process was adaptive and evolutionary. This is reflected in the need for team members to translate the health authority's intentions for the NP role (increase access to care and improve functioning of multidisciplinary teams and patient outcomes) to fit the needs of the practice settings and for senior health authority managers to remain connected to the process.

After NPs were hired, team members practicing in the three PHC settings needed to adapt to the addition of the NP to the team. They did this by clarifying and negotiating with the health authority how the NP was expected to function, becoming involved as a team in defining the NP's patient population, and establishing a space for the NP to practice either in the PHC setting or in the community. Team members' involvement was influenced by how well they accepted the role. Acceptance was influenced by how well the NP fit with the team and the team's trust in the NP's capabilities. In an effort to provide clarity of my interpretation of the findings I will first discuss how each of the concepts of intention, involvement, and acceptance individually influenced the implementation process and then the interconnectedness of the concepts.

Intention

The health authority's strategic plan (2005/ 2008-2013) indicated that the expectations for implementing the NP role were to enhance PHC services through

improvements in patient outcomes, access to care, and functioning of multidisciplinary teams. The health authority also provided support to assist PHC settings in implementing the role by developing a position description and establishing an NP steering committee to guide the process. In addition to these supports, the CRNBC had developed competencies (2003) that articulated the role and expectations of how the NP would function, along with a scope of practice document.

With these supports in place, the health authority delegated responsibility for selecting and hiring NPs to team members, such as the manager and physicians in PHC settings. Common among all settings was that not all team members participated in early discussions of how the NP's knowledge and skills could best be used before the NP was hired. In most settings it was the manager and physicians who discussed and made plans to hire an NP. After the NP was hired, and began working in the setting, team members, who were unfamiliar with the role, did not clearly understand how to use the NP's knowledge, abilities and skills and did not find the documents developed by CRNBC or the NP steering committee helpful. Participants related that they lacked sufficient knowledge of the role and after the NP was hired they needed to clarify what the NP was expected to do in the setting.

Participants said that they looked to senior managers in the health authority to clarify intentions for the role and to help them understand how best to incorporate the NP into the local PHC setting. Participants voiced frustration in what they expressed as a lack of direction from the health authority; they wanted more contact with senior health authority managers to help them clarify how the role fit and what the NP was expected to do in the setting. Although senior health authority managers responded to the request for

assistance, turnover of managers and delays in responding contributed to frustration in the PHC settings. It seems that, at the health authority level, there was an underestimation of the unpredictability of the process of implementing the NP role and its inherent complexity.

Some participants thought that, as with an FP, after the NP was hired it should have been easy to populate a roster of patients and the NP would begin to have scheduled appointments. Because of their unfamiliarity with the role, they underestimated the amount of time it would take to determine how best to use the NP's knowledge, skills and capabilities. It was not until after the NP was hired that the NP and other team members worked together to clarify how the NP was expected to function, the patient population for whom the NP was responsible, the NP's scope of practice, and how the NP fit with the rest of the team. Understanding the NP role and how the NP would function was important for the medical office assistant so that appropriate patients could be scheduled with the NP. The RNs needed to be aware of the role, so that they could answer questions related to the NP's scope of practice from medical specialists, pharmacists, and patients. The managers needed to understand the role so that they could support other staff during the implementation process, and it was necessary for FPs to be familiar with the role in order to mentor novice NPs. As I mentioned previously, working together to arrive at a common understanding of the role and expectations for the NP took time. In PHC settings unfamiliar with the role, there was a need to take into consideration the amount of time necessary to work through how the NP would fit within the team.

In this study I related the concept of intention to how the NP role was defined prior to implementation. Previous studies identified that when team members' helped to

define role expectations, their collective efforts identified patient needs and populations, and facilitated the team's understanding and readiness for the role (DiCenso et al., 2003; Goss Gilroy, 2001; Martin-Misener et al., 2009; Stolee et al., 2006; van Soeren & Micevski, 2001). Cummings et al., 2003 found that identifying intentions for the NP role provided clarity regarding how the NP would interface with other providers. Clearly identified intentions for the role also assisted in the development of position descriptions and guidelines for how the NP was intended to function within the team (DiCenso et al., 2003; Goss Gilroy, 2001). Because team members participating in this study were not involved in discussions related to the NP role before the NP was hired, these discussions took place after the NP was hired.

The context of the PHC settings were dynamic and changes in the setting strongly influenced how the NP functioned and often necessitated modification of original intentions for the role. For example, in PHC 1, the fee-for-service setting, the NP was originally intended to supplement FPs' practice by co-managing patients with chronic diseases. The unexpected retirement of one of the FPs precipitated the NP assuming responsibility for many of the retired FP's patients. Team members who lacked understanding of the role, along with an increase in the age of patients in PHC 2, the seniors PHC setting, made it difficult for one NP to function in the setting and for a second NP to establish a patient population. Team members needed to consider the local context in which the role was being implemented. Previous researchers have also demonstrated the need to consider context, such as the willingness of team members to collaborate with the NP (Stolee et al. 2006), team members' resistance to the role (van Soeren & Micevski, 2001), and managers' and FPs' support (Goss Gilroy, 2001).

Consistent with the evolutionary model of implementation (Palumbo & Oliverio, 1989), making changes to the original intent for the role in order to meet local needs is not uncommon and perhaps should be expected.

Lack of physical space in which to practice in PHC 3, the mental health care setting, influenced how quickly the NP could begin to practice. Preparing a space for the NP meant either equipping an office and examination room or reallocating space within the practice setting to accommodate the NP. Hiring an NP before space had been allocated meant delays in the NP fulfilling role expectations. Without space to practice, the NP was unable to meet expectations of increasing access to care or improving patient outcomes because there was no opportunity to care for patients. It was not until after the NP was hired that team members in PHC 2 and PHC 3 located physical space for the NP to work.

In PHC 1, the fee-for-service setting, the NP role was implemented as a demonstration project with no long-term plans for continuation of the role. According to participants, the health authority did not have a plan for whether or not the NP would be in the setting long-term. This resulted in difficulty for team members because they believed they could not make plans for the role to continue into the future. Goss Gilroy (2001) identified the need for prior planning for how to implement the role and long-term human resource planning as contributors to successful implementation.

This study contributes to a better understanding of why defining how NPs function in PHC settings is a complex process that necessitates identifying and managing multiple factors. Reay et al. (2003) suggest that identifying goals for role implementation helps the team to understand better why the NP is being hired. Goss Gilroy (2001)

concurrent with the need to identify goals for implementation as well as to have a clear role definition and scope of practice. In my study after the NP was hired team members established expectations for the role and NPs assumed a leadership role in helping them to better understand the role.

In addition to defining the role within the setting, team members needed to identify and agree upon appropriate patients for a novice NP. As well, they needed to determine where physically within the setting the NP would work. Senior health authority managers needed to determine long-term plans for the role and identify ongoing funding for the position. Team members and senior health authority managers needed to adjust to changing conditions in the environment that influenced NP practice. Given all these factors, senior health authority managers should have anticipated the need for organizational oversight early in the process and after the NP had been hired (Cummings et al., 2003; King et al., 1987; Helfrich et al., 2007; Palumbo & Oliverio, 1989). Additionally, because of the level of complexity in implementing the role, having a senior manager who is sufficiently high in the organizational structure to facilitate and champion the implementation process is indicated.

The NP role was new in BC and team members were unfamiliar with it. The role was implemented in an existing social system (Helfrich et al., 2007) in which well established roles and relationships existed. Acknowledging the newness of the role in the social system highlights the need to appreciate the complexity of NP role implementation. This complexity also helps to shed light on why it is necessary for team members to work together to clarify and redefine intentions to meet the needs of the setting. These findings are also consistent with van Soeren and Micevski (2001) and

Cummings et al. (2003) who found that lack of knowledge of the NP role was a barrier to implementation. Other researchers have identified the need to define NP role expectations, preferably before the NP is hired (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Stolee et al., 2006; van Soeren & Micevski, 2001).

Involvement

In all three PHC settings, few team members were involved in the decision to hire an NP. It was not until after the NP was hired that team members became involved in discussions of how the NP could function in the setting. For some participants in PHC 1 and PHC 3 being aware of discussions and not being involved was not problematic. Participants in PHC 2, the seniors PHC setting, who were not involved in the decision to hire NP2, wanted to be involved in the decision to hire another NP and were surprised when NP2 was placed in the setting without team member involvement. In all settings, after the NP was hired, team members became more actively involved in discussions of the types of patients for whom the NP would provide care and how to populate a roster of patients for the NP. This involvement also helped them to answer questions about the role from medical specialists, pharmacists and patients. Participants related that before team members could answer questions or schedule patients; however, they needed to be involved in discussions of how the NP would function. In most settings, after being hired, the NP became involved in the implementation process by assuming a leadership role in helping others to understand NP competencies and scope of practice better.

For the purpose of this study, I defined involvement as actively participating in the early stages of role implementation. Previous studies indicated that inclusion of

managers, physicians, and other health care providers in activities, such as mentoring new NPs was important (Cummings et al., 2003; DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001). In addition, other researchers found that managers attending to the varied team perspectives, assisting with conflicts that may arise over altered working relationships, and guiding the team through the process (Reay et al., 2003; Reay et al., 2006) as well as prior planning (Goss Gilroy, 2001; Cummings et al., 2003) influence NP role implementation. Managers also demonstrate involvement by introducing the NP to other team members, assisting the team to understand how the NP role fits in the practice setting, involving team members in the process, as well as allowing all team members to voice concern about how the NP role will impact the various established roles (Goss Gilroy, 2001; Stolee et al., 2006; van Soeren & Micevski, 2001). DiCenso et al. (2003) found that involvement of stakeholders such as physicians and other professional staff in the implementation process allowed a common understanding and shared vision for the role to emerge. A shared understanding of the role could then foster alignment of the NP role with patient needs. Reay et al. (2006) found that involvement of the team in plans for how to implement the NP role contributed to their trust of the NP.

In this study, I found that team members who were not involved directly before, became involved after the NP was hired. Involvement of team members in assimilating the NP into the team was vitally important. Their everyday work of answering the telephone or scheduling appointments either directly or indirectly influenced the implementation process. RNs, or other professional staff, were involved with implementation after the NP was hired when they answered medical specialists' or

pharmacists' questions about the NP role. These team members were involved in explaining the NP's scope of practice and competencies and reassuring medical specialists and pharmacists that the NP had legitimacy, for example, to refer or to write prescriptions. Those who scheduled appointments contributed to implementation by suggesting to patients that they (patients) schedule an appointment with the NP. For example, one participant in my study described how she "slips the patient in to see the NP" if an FP is not available. This subtle action introduced the NP to the patient and began to establish a roster of patients for the NP.

Another form of involvement was demonstrated by FPs mentoring novice NPs. If not involved in the decision to hire the NP, after the NP was hired, FPs became necessarily involved as mentors for novice NPs. According to participants, not all FPs in each PHC setting were responsible for mentoring the NP; however, those who mentored NPs needed to be involved in discussions of the most appropriate patients for the NP to follow, the NP's scope of practice, and expectations of how to mentor the NP.

Hiring an NP into a PHC setting also had implications for the larger community outside the PHC setting. The NP's scope of practice includes the legislated ability to write prescriptions, order diagnostic tests, and refer to medical specialists. Therefore, pharmacists who received a prescription written by the NP, the laboratory responsible for the diagnostic testing who received the requisition signed by the NP, and medical specialists to whom the NP referred a patient all needed to be made aware of the implementation of the NP role in the PHC setting. However, for example in PHC 1, the fee-for-service setting, pharmacists who were unaware of the hiring of the NP called the office inquiring into the NP's ability to prescribe, medical specialists refused to see

patients who were referred by the NP, and the results of the diagnostic test were sent to an FP and not the NP. In all of these instances, lack of awareness of the NP role and their involvement resulted in delays in the patient getting the prescription or referral and created more work for team members who had to answer questions. Patients who were unaware of the NP's abilities were initially reluctant to schedule appointments with the NP.

Furthermore, managers of the PHC settings in this study contributed to implementation by supporting NPs who were new to the health authority to navigate the system. The manager of PHC 3, the mental health care setting that was located in a rural remote region, supported the NP by allocating resources so that the NP could travel and spend time with more experienced NPs and attend meetings of the health authority's community of practice. Conversely, the health authority manager responsible for overseeing implementation of the NP role in PHC 1 changed several times in the first eight months after the NP was hired; this left the NP feeling unsupported until a manager familiar with the role was hired. In the case of PHC 2 the manager was unfamiliar with the NP role and had to look to senior health authority managers for support.

Nevertheless, in all settings managers worked closely with the NP and other team members to help them understand the NP role and how the NP would fit within the team. In instances where the PHC setting's manager was unable to respond to conflicts occurring after the NP was hired, senior health authority managers became involved in helping team members to understand how the health authority had originally envisioned the NP role. The need for involvement of senior management early in the process, after the NP was hired, indicates a need for them to stay connected to the implementation

process. It also supports the need for an innovative champion who understands and strongly supports the role to remain involved (Helfrich et al., 2007). In this study that champion was the senior health authority manager who met with the team in PHC 2, the seniors PHC setting, to explain the health authority's expectations for the NP role.

In several previous studies, researchers identified the importance of administrative support and the involvement of managers in early efforts to implement the NP role (Goss Gilroy, 2001; Reay et al., 2006; Stolee et al., 2006; van Soeren & Micevski, 2001). Reay et al. (2003) found that managers played a pivotal role in the implementation process by staying focused on the overall objectives of role implementation and by remaining objective and supportive of all staff as they experienced the stresses and strains of change. These researchers also found that managers who encouraged the team to sort out new role responsibilities and worked with the team to develop goals that focused on all aspects of the team and not just the NP role facilitated successful implementation (Reay et al., 2003). This study is congruent with these earlier studies. However in settings where the manager is also unfamiliar with the role, organizational supports need to be in place to support managers who have the dual responsibility of managing issues that arise among team members when an NP is added into a team unfamiliar with the role, while simultaneously attempting to understand the role, as illustrated in PHC 2.

I was also able to identify how involvement, or lack thereof, of community providers and patients could influence the implementation process. Medical specialists, pharmacists, and patients all needed to be aware of the NP as a new provider in the community in which the PHC settings were located, so that they would accept referrals

from the NP, fill prescriptions for pharmacotherapeutics, or schedule appointments with the NP.

Acceptance

Before the NP was hired in each of the settings, the manager of the PHC setting or health authority managers outside of the setting were aware of the role. In PHC 1, the fee-for-service settings, health authority managers were aware that, at the time of this study (2009), the majority of primary care was provided by FPs practicing fee-for-service. The fee-for-service demonstration project exhibited a willingness to test the feasibility of a shared arrangement between fee-for-service FPs and health authorities to implement the NP role.

Findings from this study demonstrated that the NP role was accepted more readily in settings where team members were aware of the role, either because the NP spent time in the setting as a student NP or had worked in the setting as an RN before becoming an NP. Managers, such as the district manager in PHC 3, the mental health care setting, who had worked with NPs outside of BC, or were involved in early discussion at the provincial level to implement NPs in BC were also accepting of the role.

Conversely, in settings where either the team or community providers were unfamiliar with the role, acceptance did not take place readily. In PHC 2 the team's unfamiliarity with the role and their lack of involvement in the decision to hire NP2 contributed to the NP resigning from the position. As well, without acceptance of the role, the NP in PHC 1 experienced difficulty referring patients to medical specialists, having prescriptions filled by pharmacists, and scheduling patients for appointments.

In this study, I defined acceptance as team members' recognition of the role and willingness to work with the NP. In all settings, acceptance of the NP, as an individual, occurred over time after team members had an opportunity to work with the NP and become more aware of the role. Also, in all PHC settings, prior knowledge of the role made it easier for the NP to be accepted as a team member.

Previous studies determined that acceptance of the NP role was demonstrated by team members supporting and collaborating with the NP, and valuing the NP's prior experience (Goss Gilroy, 2001; Stolee et al., 2006; van Soeren & Micevski, 2001). Cummings et al. (2003) and Reay et al. (2006) also found that acceptance occurred when other team members had knowledge of and appreciation for the role. DiCenso et al. (2003) and Schreiber et al., (2003) both found that physicians who had worked with NPs previously were more accepting of the NP role. Goss Gilroy (2001) also found that teams who had prior knowledge of the NP were more accepting of the role.

Van Soeren and Micevski (2001) found that acceptance of the NP in an acute care setting occurred over time. This was also the case in my study. Furthermore, I found that community providers' and patients' acceptance of the role, and the need to involve them in some way early in the implementation process, was important.

NP Role Enactment

In this study I found that key stakeholder acceptance and involvement in implementation and clearly identified intentions for the NP role influenced the NP's ability to enact the role. Lack of clarity around how the NP is expected to function directly relates to the NP's ability to carry out role competencies and expectations. Determining the NP's patient population, finding a space in which the NP could practice,

and understanding the NP's scope of practice and abilities took time. Legislation enabling the NP role was enacted in BC in 2005. In PHC 1 and PHC 3 the NPs hired into the positions were the first NPs with whom team members had worked. Although team members in PHC 2 had limited experience working with NP1 and NP2 before NP3 was hired, they did not have a clear understanding of the role and were relatively unfamiliar with it after NP3 was hired. Had team members been familiar with the role, they would have understood how to work with an NP and recognized it was a position with a set of expected behaviours, rights, and obligations, as is the case when new RNs or FPs are hired and everyone understands the expectations of these roles. Moreover, had they understood how to work with an NP, after being hired the NP would have been able to begin quickly to carry out role expectations.

While team members most readily identified with the clinical aspect of the role and NPs spent the majority of their time in direct patient care, there are other competencies of the NP role that CRNBC expects NPs to fulfill. These include the competencies of leadership, collaboration, research, and change agent (RNABC, 2003). NPs were able to describe to me how they met all of these competencies to some degree. For example, NPs assumed leadership roles in helping others to understand how to best use their knowledge, skills, and capabilities, and one NP assumed responsibility for a retired FP's patients. They initiated changes to how care was delivered by opening a drop-in clinic in a community resource centre, started group visits for patients with COPD, and helped to establish a program for patients with renal disease. NPs described how they collaborated with other care providers and partnered with patients. All of the NPs related that they used knowledge from research to influence their practice and

participated in other research studies that had been conducted by researchers in BC. None of the NPs had initiated research in their settings nor were they actively involved in evaluation of their practice.

Interconnectedness of Intention, Involvement, and Acceptance

The synergistic interconnectedness of the concepts of intention, involvement and acceptance influences the implementation process and how the NP is able to function in the setting. Without any one of the three concepts not only is implementation difficult, but also it is difficult for the NP to fulfill role expectations. In this study I discovered that in the early stages of implementation, when team members are only beginning to understand the role, it was important for as many team members as possible to be involved in discussing how the NP would function and defining the role. Equally important, team members needed to be willing to accept the NP as a new member of the team.

Through this study participants helped me to learn more about the complexity of implementing the NP role into practice settings where team members are unfamiliar with it. Participants described how they were involved in implementation, how they defined the role, and what factors contributed to their acceptance of the NP. Their descriptions and perceptions contributed to my ability to build an explanation of this iterative process. I also gained knowledge of the strength of using an organized approach to planning for implementation of the NP role that includes team members who will work directly with the new NP in the practice setting. What's more, this explanation illustrates that although an organized approach to planning for NP role implementation is important, the process is not linear as it would appear in the PEPPA framework, but instead is more iterative.

Therefore, when using the PEPPA framework stakeholders need to remain aware of all of the steps and continuously assess if there is a need to recruit new stakeholders, make adjustments to reflect the context of the practice setting, and if necessary redefine the NP's patient population.

Strengths of the Study

A strength of this study was the use of a qualitative case study and the involvement of various interdisciplinary team members. Multiple data sources included interviews with NPs, RNs, FPs, managers and other support staff and review of relevant documents. By using a qualitative approach, I was able to consider the participants' perceptions and learn how they contributed to, and influenced, implementation. Using case study research, I was able to provide an in-depth explanation of implementation at a practice setting level. This approach makes a contribution to understanding the diversity among the settings, the variations in efforts to implement the NP role, and the complexity in which NPs practice. As well, the study is an in-depth explanation of factors to consider when implementing any new role and why these factors are important.

Another strength was working with a decision maker partner who was involved in the early plans for the study. By engaging early with a decision maker partner, I was able to have access to the NP steering committee whose members facilitated my access to the practice settings. Through this study I have established relationships with members of the steering committee and others in the health authority. These relationships may create opportunities for future research in this and other provincial health authorities.

This study also illustrated the pivotal role of managers of practice settings. Other studies have demonstrated the role managers play in providing infrastructure such as

office space and equipment, utilizing all components of the NP role, creating awareness of the role among team members, and obtaining mentors for novice NPs (Carter, et al., 2010). The findings from this study add to the knowledge that managers are major stakeholders who are intricately involved in implementing NP roles.

Limitations of the Study

This was a single case study with three embedded units of analysis. The intent of the study was to understand and explain the process used to implement the NP role in the PHC settings of one health authority. Participants included only those who worked in PHC settings. As a result of focusing on the PHC setting, no data were collected from senior health authority managers. Therefore, perceptions of participants in PHC settings may not reflect organizational realities or the intent of senior health authority managers. As well, the perceptions of patients were not represented. Data from senior health authority managers could have provided insight into expectations for the NP role that were not conveyed by participants. Data from patients would have helped to explain how patients seen by the NP found the experience and their level of acceptance of the NP as a care provider.

The findings from this study are based on one interview with each of the 16 participants and documents obtained from each setting. I did not directly observe participants interacting in the PHC settings. Participant observation might have enhanced my understanding of how team members interacted and how the NP was able to enact the role. Another limitation is volunteer bias as I only interviewed those participants that volunteered. Others who chose not to volunteer might have had different perceptions.

The findings from this study cannot be generalized to all PHC settings in BC where the NP role has been implemented. However, the location of PHC settings in urban, rural and remote settings; the patient populations of seniors, patients in fee-for-service FP offices and those with mental health problems; and the models of care including team based, interdisciplinary, and fee-for-service are similar to other settings in the province where the role has been implemented. I presented the findings of this study at the annual conference of NPs in BC and received very positive feedback from those attending my presentation. An NP (who was not a part of my study) asked me if I included her in the study because my findings were very similar to her experience. I also presented these findings at an international meeting of NPs in Brisbane, Australia. Again, attendees responded very favorably to my presentation. An attendee commented to me that what I described was very similar to the experience of NPs in New Zealand. The ability of others to transfer the findings contributes to the study's validity (Miles & Huberman, 1994).

Another limitation of this study is that all NPs were novices when first hired into their positions. The findings from this study may not be transferable to settings where the NP is experienced, where participants are familiar with the NP role, or provinces where the role is better established within the health care system. Because of their relative newness in their roles, my expectations of how the NPs were enacting all role competencies may have been relatively low. I did not probe deeply into how they were enacting all of the CRNBC role competencies. I also did not ask other participants to identify how NPs were enacting the competencies of leadership, change agent, collaboration, or research.

Finally, because this study was a single case study involving one health authority in BC, it is unknown how the approach to implementation used by other health authorities in BC would have influenced the findings. Participants involved in implementing the NP role in the practice settings of other health authorities may have had different experiences.

Contributions to Knowledge

This study contributes to the state of the knowledge of role implementation in several ways. First, it explicates factors, such as intention, involvement, and acceptance, to consider when implementing new roles and highlights the importance of context. Secondly, it demonstrates the complexity of the role implementation. Stakeholders need to expect the process to take time and to recognize that the process used in one setting might not work in another setting. This does not indicate that efforts in one setting were right and in the other setting they were wrong. Instead, the context of each setting will influence the process of implementation. Finally, this study highlights the importance of the involvement of community stakeholders and confirms the pivotal role of managers.

Implications for Research

This study is foundational to my developing program of research to explore the value of the NP role in the health care system. The ability of the NP to enact all role dimensions and contribute to the health care system is influenced by how successfully the role is implemented into practice settings. Steps 8 and 9 of the PEPPA framework indicate the need to evaluate and monitor role implementation. Therefore, the findings from this study will inform future studies evaluating implementation and monitoring of the model of care after implementation.

This study contributed to more in-depth understanding of the process of implementing the NP role in BC. There is a need to build on these findings to determine what other factors that were not identified in this study influence NP role implementation. In this study I explained the complexity of implementing the role in practice settings; however, there remains a need to research factors influencing implementation at a systems and organizational level. As well, the use of multiple case studies of NP role implementation in other BC health authorities would allow me to build on the findings of this study.

The NP role was established in BC to increase access to care and improve patient outcomes, therefore a mixed method evaluation study could be used to determine NP practice patterns and to evaluate how NPs influence access to care and patient outcomes.

The CRNBC competencies and scope of practice include an expectation that NPs collaborate and consult with others, including physicians. This study revealed that NPs are collaborating; however, other team members may not fully understand how NP collaboration occurs. Therefore an ethnographic approach using participant observation could be used to better understand how collaboration and consultation within multidisciplinary teams occurs.

Patients' perceptions of care provided by NPs were not assessed in this study. Numerous studies have demonstrated that patients are satisfied with care provided by NPs; however, there is a need to better understand what aspects of NP care patients find satisfying. A qualitative approach using either case study or grounded theory could be used to illuminate patients' perceptions of NPs as care providers.

In this study two NPs were known to other team members as student NPs or RNs working in the setting before they were hired. Two other NPs were unknown to team members and multiple factors associated with how the NPs were hired influenced team members' willingness to accept and collaborate with the NPs. A study of the implementation process in settings where team members were involved in the decision to hire an NP that was previously unknown to them could contribute to a better understanding of the implementation of the NP role in settings where new NPs are hired.

Finally, CNA (CNPI, 2006), the Winnipeg Regional Health Authority (2005), and Cancer Care Ontario (2009) endorse the use of the PEPPA framework to assist in implementing NP roles and each developed a toolkit for NP role implementation based on the framework. Although I also used the PEPPA framework to guide my development of the conceptual framework used in this study, to date there has been no comparative intervention study of the implementation process using the PEPPA framework and a setting where the framework was not used. This type of study would contribute to knowledge of how implementation differs when the PEPPA framework is used and not used in practice settings.

Implications for Policy

In 2010, 195 NPs were registered as practicing in BC, up from 156 in 2009 (CRNBC, 2010c) with the majority of these registered as family NPs. The NP role is new in BC and its future is not assured. There remain systems level issues related to funding and long-term human resource planning that need to be addressed. At the organizational level, without funding mechanisms for new positions, health authorities have been slow to increase the number of new NP positions beyond those originally allocated and funded

by the MOH (Stevenson & Sawchenko, 2010). Although this study only considered PHC settings, there was some evidence that the inability of NPs to submit various government forms for services such as home care, meal supplements, and medical equipment were barriers to NP practice. These findings can be used by policy makers to support the need to change regulation that would remove these barriers.

Kaasalainen and colleagues (2010) stated that although Canada is in its “third wave” of NP role implementation, the role is not currently regarded as essential to the health care system. Furthermore, recommendations from a roundtable of policy makers, administrators, practitioners, educators and researchers convened in 2009 by the Canadian Health Services Research Foundation and Health Canada’s Office of Nursing Policy included the need to develop a communication plan to disseminate the contributions NPs make to the health system, protect funding for NP positions, and conduct further research on the value added benefits of NPs (DiCenso et al., 2010). Professional associations and organizations exist that are able to build on these recommendations and support BC’s efforts to implement and integrate NPs into the health care system. Decision makers will need to work collaboratively with CRNBC, CNA, the British Columbia Association of Nurse Practitioners, and other national associations to strengthen the impetus for expanding the numbers of NPs practicing in BC. Findings from this study support the need for the use of evidence to inform successful implementation of the role.

Neither the health authority nor the PHC settings participating in the research used an evidence-based, participatory approach to implement the NP role. The findings from my study suggest the need to use a systematic approach, like the PEPPA

framework, to guide the implementation process. Decision makers within health authorities can encourage members of the NP steering committee and those intending to hire an NP to begin to use the framework to implement NP roles in new PHC settings.

There was no announcement of the addition of an NP to the PHC settings in the communities in which this study occurred. Findings indicate that there is a need for more public awareness of the NP role prior to NPs being hired. Policy makers can also use these findings to support the need for mass media campaigns to increase public engagement and partnership in discussions of the NP role.

Mass media campaigns will raise consumer awareness of the NP role; however, they do not facilitate public involvement in the discourse of whether or not the NP role has a legitimate place in the BC health care system. This study identified that citizen engagement was lacking in efforts to implement the NP role in the health authority. As we move from a disease-centred to a patient-centred approach to PHC (World Health Organization, 2008) it becomes increasingly necessary to hear directly from consumers and to have them fully engaged in legitimate partnerships (Arnstein, 1969) with policy makers and health authorities in determining how and where to implement NP roles.

Implications for Practice

Findings from this study demonstrate the need to consider multiple factors when implementing the NP role in settings unfamiliar with it and the use of a participatory, evidence-based approach to implementation. Lack of team involvement in early discussions to hire an NP created delays in the NP's ability to begin to practice once hired. Given the newness of the role in BC and that NPs will continue to be hired into settings unfamiliar with the role, health authority policies need to encourage and expect

all team members to be involved in determining the need for an NP and discussions of how the NP role fits within the team. This involvement could help team members to define the role within the context of the practice setting and to facilitate acceptance of the NP once hired. Because findings from this study indicated that NPs in all PHC settings assumed a leadership role in helping others to understand and accept the role, NP graduates will need to be well grounded in the non-clinical advanced nursing practice competencies of the role so they are able to influence how this role is taken up in PHC settings.

Senior managers of the health authority and managers in PHC settings played a pivotal role in NP role implementation. Recognizing the need for involvement of others in defining intentions for the role and gaining acceptance of the NP, managers may use the study findings to facilitate successful implementation of the process. These findings also demonstrate the complexity of NP role implementation and need for health authority oversight of the process so that managers and other team members in PHC settings feel supported during the process.

NPs participating in this study verbalized their appreciation for the community of practice established by the health authority to support NPs in their role. According to participants, NPs meet periodically to discuss issues related to role implementation and development. The NPs also use each other for practice support. Ongoing support for NPs through the community of practice will be important into the future.

Implications for Education

NPs begin their socialization into the role during their educational programs. Educators have the responsibility to help NP students to understand and develop into the

NP role. Brown and Olshansky (1997) identified four stages NPs go through in their first year of practice in what the authors described as moving from “limbo to legitimacy”. The stages included: 1) laying the foundation that occurs shortly after graduation when NPs are no longer an RN but not yet an NP; 2) launching which is accompanied by feelings of an imposter, feeling anxious, and pressured for time; 3) meeting the challenge as they begin to feel more confident and competent in their knowledge skills, and abilities; and 4) broadening the perspective which is identified by feelings of legitimacy (Brown and Olshansky, 1997). Brykczynski (2009) describes the NP role as a dynamic, ongoing process that begins while preparing to become an NP and continues over the lifetime of one’s career. Findings from this study can help educators to socialize NPs into what to expect in the practice environment. Participants in this study most readily identified with the clinical aspect of the role, which, according to Brykczynski (2009), is not unusual. Nonetheless, educators can assist students to understand the complex social setting in which they will practice and help them learn to negotiate employment contracts, so that they are in a stronger position to enact not only the clinical but also the non-clinical aspects of the role, including collaboration and functioning as a leader, and a change agent which involves the ability to establish and build relationships with others, and the utilization of knowledge obtained from research and other areas (e.g., clinical practice guidelines) to inform their practice.

Other team members unfamiliar with the NP role had difficulty understanding it. This indicates a need for more interdisciplinary education so that FPs, RNs, pharmacists and others have exposure to the role during educational programs and gain a better understanding of expectation not only of the NP role, but also of how to practice within

interdisciplinary teams. Specifically, FPs were involved with mentoring novice NPs as well as collaborating with them. FPs without knowledge and exposure to the role had difficulty meeting these expectations. This study can be used to strengthen recognition of the need to create opportunities for medical students and residents to become acquainted with the NP role during their medical education. Medical and nursing educators may use these findings to support the need to change policies so that NPs and medical students and residents have increased opportunities to learn together.

Summary

This study provided a more in-depth understanding and explanation of how clearly identified intentions for the NP role and the involvement of key stakeholders influence acceptance of the role and the process of NP role implementation. It helps to explain how these factors influence the ability of the NP to fully enact all the advanced nursing practice competencies as set out by CRNBC. The role is new in BC and these findings emphasize the pivotal role of managers of PHC settings and senior managers in health authorities in successful implementation. The findings suggest that managers need to pay attention to how others are involved in the process, how the role is defined in PHC settings, and the degree of acceptance for the role.

Without strong organizational leadership this new role, just like any new innovation, is at risk of failure because it is not being taken up by the practice settings. The community of practice established by the health authority is a support for NPs. Members of the community of practice can work closely with health authority managers and the NP steering committee to nurture ongoing role development and implementation.

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Appendix A

Dalhousie University's Ethics Approval Letter



Health Sciences Human Research Ethic Board
Letter of Approval

Date: January 23, 2009.

To: Esther Sangster-Gormley, School of Nursing
Dr. Ruth Martin-Misener, School of Nursing

The Health Sciences Research Ethics Board has examined the following application for research involving human subjects:

Project # 2008-1896 (version 3)

Title: A Case Study of the Process of the Implementation of the Nurse Practitioner Role in Primary Health Care Settings in the [REDACTED]

and found the proposed research involving human subjects to be in accordance with Dalhousie Guidelines and the Tricouncil Policy Statement on *Ethical Conduct in Research Using Human Subjects*. This approval will be in effect for 12 months from the date indicated below and is subject to the following conditions:

1. Prior to the expiry date of this approval an annual report must be submitted and approved.
2. Any significant changes to either the research methodology, or the consent form used, must be submitted for ethics review and approval *prior to their implementation*.
3. You must also notify the Office of Research Ethics Administration when the project is completed or terminated, at which time a final report should be completed.
4. Any adverse events involving study participants are reported immediately to the REB

Effective Date: January 22, 2009.
Expiry Date: January 22, 2010.

signed: _____
Jeannette McGlone (Chair HSHREB)

IMPORTANT FUNDING INFORMATION - Do not ignore

To ensure that funding for this project is available for use, you **must** provide the following information and **FAX** this page to **RESEARCH SERVICES at 494-1595**

Name of grant /contract holder _____ Dept. NSg

Signature of grant / contract holder _____
Ruth Martin-Misener

Funding agency _____

Award Number _____ Dal Account # (if known) 51932

Research
Tel:

Office • 5248 Morris Street • Halifax, NS, Canada • B3J 1B4
Email: Patricia.Lindley@dal.ca • www.dal.ca/~research

Appendix B

Interview Questions for Managers

1. What is your title?
2. How long have you been employed by the health authority?
3. How long have you been at this practice setting?
4. What are your primary responsibilities in this setting? [role]
5. Do you work full time or part time? If part time how often are you here?
6. Prior to the NP joining your team, did you have any previous experience working with an NP? If yes, please explain that situation. [Concept: **Acceptance**] {*knowledge & understanding of role*}
7. How would you define the NP role? [Concept: **Intention**] {*definition* (DiCenso et al., 2003; Stolee et al., 2006) ; *role clarity* (van Soeren & Micevski, 2001)}
8. Can you describe for me how the NP role fits with your role? [Concept: **Acceptance & Intention**] { *role clarity and understanding of role fit* (DiCenso et al., 2003)}
 - a. Does the NP report directly to you?
 - b. If not, what is the reporting structure?
 - c. How does this work for you?
 - d. Do you find there is overlap between staff positions?
 - e. How have you dealt with the overlap between roles?

9. Which patient need is the NP expected to address in this setting? [Concept: **Intention**] {*planning for the role* DiCenso et al., 2003; Goss Gilroy, 2001; Reay et al., 2003)}
- a. How were these needs determined?
 - b. Who was involved in determining the needs?
10. What influence has the NP had on functioning and collaboration among the team?
- a. Could you think of any examples? [Concept: **Acceptance**] {*understanding of role by the team, willingness to collaborate* (Cummings et al., 2003; Stolee et al., 2006)}
11. From your perspective, could you describe the implementation process of the NP role to me?
- a. Who was involved in the planning for the NP role? [Concept: **Involvement**] {*plan for implementation/involvement of team* (Cummings et al., 2003)}
 - b. Who was involved in writing the proposal for the position?
 - c. Was a community member or patient group consulted regarding the role?
 - d. If yes, how did this occur?
12. What was your involvement in the process?
- a. Would you like to have been more or less involved?
 - b. Please explain. [Concept: **Involvement**]
 - c. Were the right people involved in the process?

- d. Who else should have been included?
 - e. Why?
13. What process was used to introduce the NP role/NP to you and the rest of the team? [Concept **Involvement** (Reay et al., 2003)]
- a. What planning went into the introduction of the role?
14. So far how is the implementation process going?
- a. Has the implementation process met your expectations?
 - b. What has most surprised you about the implementation process?
 - c. What would you do differently next time?
 - d. Why?
15. What aspects of the implementation process have worked well?
- a. How could the process be improved?
 - b. How have you addressed issues related to implementation of the role among staff members or physician? [*Manager's role in working with team* (Stolee et al., 2006)]
16. Is there anything else that you would like to add that I may not have asked?

Appendix C

Interview Questions for Physician

1. What is your title?
2. Is your remuneration salary by the health authority or fee-for-service?
3. How long have you been at this practice setting?
4. What are your primary responsibilities in this setting? [role]
5. Do you work full time or part time? If part time how often are you here?
6. Have you had any previous experience working with an NP?
 - a. If yes, please explain that situation. [Concept: **Acceptance**]
{knowledge & understanding of role}
7. How would you define the NP role? [Concept: **Intention**] *{definition (DiCenso et al., 2003; Stolee et al., 2006) ; role clarity (van Soeren & Micevski, 2001)}*
8. Can you describe for me how the NP role fits with your role? [Concept: **Acceptance & Intention**] *{ role clarity and understanding of role fit (DiCenso et al., 2003)}*
 - a. Is there role overlap?
 - b. Does the NP compliment your role?
 - c. If so how, if not, why not?
9. Which patient need is the NP expected to address in this setting? [Concept: **Intention**] *{planning for the role (DiCenso et al., 2003; Goss Gilroy; Reay et al., 2003)}*
 - a. How were these needs determined?

- b. Were you involved in determining these needs?
- c. If no, do you believe you should have been involved?
- d. Why?

10. What influence has the NP had on functioning and collaboration among the team?

- a. Could you think of any examples? [Concept: **Acceptance**]
{understanding of role by the team, willingness to collaborate
(Cummings et al., 2003; Stolee et al., 2006)}

11. From your perspective, could you describe the implementation process to me,

- a. Who was involved in planning for the implementation of the NP role?
[Concept: **Involvement**] *{plan for implementation/involvement of*
team (Cummings et al., 2003)}
- b. What was your role in planning for the addition of an NP?

12. What was your involvement in the process?

- a. Would you like to have been more or less involved?
- b. Please explain. [Concept: **Involvement**]
- c. Do you think the right people were involved in the process?
- d. Who else should have been involved?
- e. Why?

13. What process was used to introduce the NP role/NP to you and the rest of the team? {Concept **Involvement**, planning for the introduction of the role (Reay et al., 2003)}

- a. How did you learn that an NP would join the team?

b. When did you learn that an NP would join the team?

14. So far how is the implementation process going?

a. Has the implementation process met your expectations?

b. What has most surprised you about the implementation process?

15. What aspects of the implementation process have worked well?

a. How could the process be improved?

16. Is there anything else that you would like to add that I may not have asked?

Appendix D

Interview Questions for Staff

1. What is your title?
2. How long have you been employed by the health authority?
3. How long have you been at this practice setting?
4. What are your primary responsibilities in this setting? [role]
5. Do you work full time or part time? If part time how often are you here?
6. Prior to the NP joining your team, did you have any previous experience working with an NP? If yes, please explain that situation. [Concept: **Acceptance**] {*knowledge & understanding of role*}
7. How would you define the NP role? [Concept: **Intention**] {*definition* (DiCenso et al., 2003; Stolee et al., 2006) ; *role clarity* (van Soeren & Micevski, 2001)}
8. Can you describe for me how the NP role fits with your role? [Concept: **Acceptance & Intention**] { *role clarity and understanding of role fit* (DiCenso et al., 2003)}
 - a. Do you perceive an overlap of the NP role with your role?
 - b. If so, how?
 - c. If not, why not?
9. Which patient need is the NP expected to address in this setting? [Concept: **Intention**] {*planning for the role* (DiCenso et al., 2003 Goss Gilroy, 2001; Reay et al., 2003)}
 - a. How were these needs determined?

- b. Were you involved in determining these needs?
- c. If no involvement, do you think you should have been involved?
- d. Why or why not?

10. What influence has the NP had on functioning and collaboration among the team?

- a. Could you think of any examples? [Concept: **Acceptance**]
{understanding of role by the team, willingness to collaborate
(Cummings et al., 2003; Stolee et al., 2006)}

11. From your perspective, could you describe the implementation process to me?

[Concept: **Involvement**] *{plan for implementation/involvement of team*
(Cummings et al., 2006)}

- a. Who was involved in planning for the implementation of the NP role?
- b. How were you involved in writing the proposal for the position?

12. What was your involvement in the process? [Concept: **Involvement**]

- a. Would you like to have been more or less involved?
- b. Please explain.
- c. Do you believe the right people were involved in the process?
- d. If no, who else should have been included?
- e. Why?

13. What process was used to introduce the NP role/NP to you and the rest of the team? [Concept **Involvement** {especially of managers in planning for the introduction of the role (Reay et al., 2003)}

- a. What planning went into the introduction of the role?

14. So far how is the implementation process going?
 - a. How has the implementation process met or not met your expectations?
 - b. What has most surprised you about the implementation process?
 - c. What would you recommend be done differently in the future?
 - d. Why?
15. What aspects of the implementation process have worked well?
 - a. How could the process be improved?
 - b. How have you addressed issues related to implementation of the role among yourself, other staff, and the NP?
16. Is there anything else that you would like to add that I may not have asked?

Appendix E

Interview Questions for NPs

Background and Demographics

1. What is your title?
2. How long have you been at this practice setting?
3. How long have you been an NP?
4. What is your educational preparation?
5. What are your primary responsibilities in this setting? [*role*]
6. Do you work full time or part time? If part time how often are you here?
7. Have you worked as an NP prior to taking this position? If yes, please describe that situation.
8. The NP role includes clinical practice, but also competencies in leadership, collaboration, and change agent. How are you able to enact all these competencies in your current position? If you are limited in your ability to practice to your full scope, what prevents you from practicing all NP competencies as described by CRNBC? [Concept: **Intention**]
9. In a given day, what percentage of your time is involved in providing direct clinical care to patients? Do you find this an appropriate amount of time?
[Concept: **Intention**]
10. How would you describe the preparedness of the setting for your role [Concept: **Involvement**] {*manager and team's involvement in implementation (DiCenso et al., 2003; Reay et al., 2003; Stollie et al., 2006)*}

11. How well is your role defined and understood in your practice setting? [Concept: **Intention**]
12. How have you facilitated the development of your role in this setting [Concept: **Involvement**] {*NP's involvement in education of team and development of position description* (Goss Gilroy, 2001)}
13. Can you describe how you feel supported and accepted in this role? Who has been the most supportive and accepting? Why do you think this is? [Concept: **Acceptance**] {*acceptance and mentorship for the role; willingness of team to collaborate*, (DiCenso et al., 2003; Goss Gilroy, 2001; van Soeren & Micevski, 2010)}
14. Can you describe how you feel unsupported or unaccepted in this role? Who has been the most unsupportive or least accepting? Why do you think this is? [Concept: **Acceptance**] {*acceptance and mentorship for the role; willingness of team to collaborate*, (Goss Gilroy, 2001; van Soeren & Micevski, 2001)}
15. From your perspective, could you describe how your role was implemented to me?
16. How were you involved in the implementation of your role? [Concept: **Involvement**] {*Involvement of NPs in process* (DiCenso et al., 2003; Goss Gilroy, 2001) }
17. So far how is the implementation process going?
18. What issues, if any, have you encountered with the implementation process?
How have these issues influenced your ability to enact your role?

[Implementation; concept: **Acceptance**] {*understanding of the role by others*
(DiCenso et al., 2003)}

19. Is there anything else that you would like to add that I may not have asked?

Appendix F

Decision-Maker Letter to PHC Setting

Date of Dalhousie University Research Ethics Board Approval: January, 2009

Dear *insert name*,

I am writing to invite your primary health care setting to participate in a research study *A Case Study of the Process of the Nurse Practitioner Role Implementation into a Regional Health Authority in British Columbia*. I have been involved in developing and guiding this study, along with the Nurse Practitioner Steering Committee. The results of this research will inform how the Steering Committee implements the nurse practitioner (NP) role in the future.

The principal researcher is Esther Sangster-Gormley, a PhD candidate from the Dalhousie University School of Nursing, and an Assistant Professor from University of Victoria's School of Nursing. Ethics approval has been received from Dalhousie University.

Your primary health care setting is invited to participate in this study, which includes analyzing documents that you provide, as well as individual interviews with the NP, manager of the practice setting, a physician, and a registered nurse, registered/licensed practical nurse, or medical office assistant who works regularly with the NP. It is expected that the interviews will each last approximately 60 minutes. A quiet meeting room that provides privacy will be needed for document analysis and interviews that participants request be held on site. Confidential documents will not be copied or removed from the premises.

The data collected will be used to:

- Understand the process of nurse practitioner role implementation into primary health care settings,
- Discover the perceptions of nurse practitioners and stakeholders regarding how the implementation process occurs, and
- Recognize the facilitators and barriers that influence the process of nurse practitioner role implementation in primary health care settings.

Participation in the study is voluntary. Participants can withdraw from the study at any time without any penalty, or loss of relationship or standing with the researcher, the health authority, or university. Confidentiality will be maintained.

If you **do not** want the research coordinator to contact you with further information about the study and access to your primary health care setting for this study, please sign the enclosed form and mail it back to the research coordinator in the enclosed stamped, addressed envelope.

If you **do** want to learn more about the study, you don't have to do anything. A research coordinator will contact you to talk about the study, answer your questions, and explain the consent process.

Thank you for considering this request to participate in this important study. If you have any questions, please contact me or Esther Sangster-Gormley 250-721-7962 or 250-360-0107 or by email at egorm@uvic.ca.

Appendix G

Decision-Maker Letter to Participant

Dear name,

A researcher is conducting a study to learn more about the process of implementing the nurse practitioner role into primary health care settings. Understanding your experiences with how the nurse practitioner role was implemented can provide important information to inform how the health authority implements the NP role in the future.

You are being invited to participate in the research study *A Case Study of the Process of Nurse Practitioner Role Implementation within a Health Authority in British Columbia*. The principal researcher is Esther Sangster-Gormley, a PhD candidate from the Dalhousie University School of Nursing, and an Assistant Professor from University of Victoria's School of Nursing. This study has my support as well as the support of NP steering committee.

Health care team members of site name are invited to participate in an individual interview that takes about 60 minutes and will be scheduled at a time that is convenient for you. The research coordinator will contact you to explain the study in more detail and give you an opportunity to ask questions. You will be asked to sign a consent form to participate in the study.

Participation in the study is voluntary and you can withdraw at any time and ask that the information you have provided be removed from the study. Your employment will not be affected by whether you decide to participate or not. The researcher will not tell the administrator who participates or declines to participate. Identities will be protected and information will be kept confidential.

If you **do not** want the research coordinator to contact you about this study, please sign the enclosed form and mail it back to the research coordinator in the enclosed stamped, addressed envelope.

If you **do** want to learn more about the study, you do not have to do anything. A research coordinator will contact you to talk about the study and what is involved. She will review the consent form with you at that time and answer your questions.

Thank you for considering this request to participate in this important study. Please feel free to contact me should you have any questions or you can contact the researcher, Esther Sangster-Gormley at 250-721-7962 or 250-360-0107 or by email egorm@uvic.ca.

By signing this form, I choose **not** to be contacted by the research coordinator for this research study.

Signature of Health Care Provider

Print Name of Health Care Provider

Position/Professional Designation

Date

If you **do not** want to participate in this research study, return this signed form to:

Esther Sangster-Gormley
Assistant Professor
University of Victoria
PO Box 1700 STN CSC
Victoria, British Columbia V8W 2Y2

Appendix H
Data Extraction Tool

Documents	PHC 1	PHC 2	PHC 3
Proposal Is a proposal available? What is the purpose of NP role? What patient population was identified? Is there congruence between the purpose and patient population with how NP is functioning?			
Role description Is there a role description? Does it match to CRNBC competencies? How is the role defined?			
Is the NP enacting all CRNBC competencies? Clinical: Assessment & diagnosis Health care management, pharmacotherapeutics & therapeutic interventions, Health promotion & Illness/injury prevention Professional responsibilities & accountability Collaboration Leadership Change Agent Research			

Appendix I

Participant Information Sheet and Consent for Semi-Structured Interviews

A Case Study of the Process of Nurse Practitioner Role Implementation Within a Health Authority in British Columbia

Principal Investigator: Esther Sangster-Gormley, RN, MS, PhD (c)
Dalhousie University
Phone: (250) 360-0107
Email: egorm@uvic.ca

Thesis Supervisors: Ruth Martin-Misener, RN, PhD
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Dalhousie University
902-494-2250
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Professor
Dalhousie University
902-494-8831
barbara.downe-wamboldt@dal.ca

Funder: The study is funded in part by the health authority.

We invite you to take part in a research study being conducted by Esther Sangster-Gormley who is a graduate student at Dalhousie University as part of her Doctorate of Philosophy degree. Your participation in this study is entirely voluntary and will in no way affect your employment or relationship with the health authority. You may decide not to participate and withdraw from this study at any time without consequences or explanation. If you do withdraw from the study, you will be asked for your consent to use your input up the point of your withdrawal. You are free to refuse to answer any questions, ask for any information to be destroyed, and ask for sensitive information not to be divulged.

The study is described below. This description tells you about the risks, inconvenience, or discomfort that you might experience. Participating in the study might not benefit you, but we might learn things that will benefit others. You should discuss any questions you have about this study with Esther Sangster-Gormley.

Purpose:

The purpose of this study is to understand and explain the process of nurse practitioner (NP) role implementation in primary health care settings (PHC) settings, as the process is occurring in one area in British Columbia. Identifying the process of NP role

implementation will provide information that administrators and practitioners in the health authority may use to modify current approaches and strategies to the introduction and support of NP roles in the district. Knowledge obtained from this study of the process of NP role implementation in health authority's PHC settings will contribute to nursing knowledge by providing evidence of factors that influence the implementation process of this advanced nursing role. This study will also inform the health authority's implementation steering committee's decisions for future placement of NPs, and illuminate factors in PHC settings to be addressed prior to further implementation.

Study Design:

Your involvement in the study will be limited to participating in one face-to-face interview that will be conducted by Ms. Sangster-Gormley and last approximately 90 minutes. During the interview you will be asked questions to learn of your perception of the process of NP role implementation in this setting.

You are being asked to participate in this study because of your working relationship with the NP in your PHC setting and your knowledge of how the NP role has been implemented in this setting.

Ms. Sangster-Gormley is the principal investigator for this study. She will conduct all of the interviews and manage all of the information obtained through interviews. Ms. Sangster-Gormley's study is under the supervision of Dr. Ruth Martin-Misener and Dr. Barbara Downe-Wamboldt of Dalhousie University.

Risks:

Risks associated with your participation in this study are no greater than those that can be related to common experiences of everyday life. You may experience emotional or psychological distress caused by answering questions during the interview. The intent of the interview is to determine your perceptions of how the implementation of the NP role has occurred in this setting. Every effort will be taken by Ms. Sangster-Gormley to word the publication of the findings from this study in ways that cannot be traced back to any comments you make during this interview.

Potential Benefits:

You will receive no direct benefit from participating in this study. Knowledge obtained from this study may contribute to changes in the process of NP role implementation within health authority which may be of indirect benefit to you as a colleague of the NP.

Monetary Compensation:

There will be no monetary compensation for participating in this study.

Confidentiality:

Any identifying information resulting from this study will be kept strictly confidential. You will not be identified in any reports or publications that result from this study. All documents will be identified by a code number and will be kept in a locked filing cabinet in Ms. Sangster-Gormley's office at the University of Victoria, where she is a faculty member and on the hard drive of her password protected computer. A second PhD prepared researcher will assist in the analysis of the data from this study. However, only Ms. Sangster-Gormley will have access the codes used to designate participants.

Tapes of your interview will be emailed by Ms. Sangster-Gormley to a professional transcriptionist, who has signed a confidentiality agreement. The transcriptionist will email the transcripts of the taped interview back to Ms. Sangster-Gormley. There will be no identifying information contained in the transcripts. This study is carried out to partially fulfill requirements for Dalhousie University's degree of Doctorate of Philosophy. The final dissertation that is submitted to Dalhousie will not identify any participants. Data obtained from this study will be retained for 5 years by Ms. Sangster-Gormley to be used for educational purposes and to publish academic papers.

If you have any questions or concerns at any time during this study you may contact Ms. Esther Sangster-Gormley in Victoria at 250-360-0107 or email egorm@uvic.ca.

If you have any difficulties with, or wish to voice concern about any aspect of your participation in this study you may contact Patricia Lindley, Director of Dalhousie University's Office of Human Research Ethics Administration, for assistance (902) 494-1462, patricia.lindley@dal.ca.

**A Case Study of the Process Nurse Practitioner Role Implementation
Within a Health Authority in British Columbia**

Consent for Interview

Your signature below indicates that you have read the above information and have had an opportunity to ask questions to help you understand what your participation will involve. Your signature indicates that you consent to participate in this study and that you have received a copy of this consent form for your records.

Signature of Participant

Date

Printed name of Participant

I consent to having this interview audio recorded:

Signature of Researcher

Date

Printed name of Researcher

Appendix J
A Case Study of the Process of Nurse Practitioner Role Implementation
within a Health Authority in British Columbia

Confidentiality Agreement

I agree to keep all tapes transcribed for the above study confidential and return all transcripts directly to Esther Sangster-Gormley via her email address: egorm@uvic.ca.

Signature of Transcriptionist

Date

Printed Name of Transcriptionist

Signature of Researcher

Date

Printed Name of Research