ENVISIONING AN INTEGRATED CLINICAL NURSE SPECIALIST ROLE IN PRIMARY CARE AND PRIMARY HEALTH CARE FOR HEALTH CARE REFORM IN NEW BRUNSWICK: A MODIFIED DELPHI STUDY OF KEY STAKEHOLDERS' PERSPECTIVES

by

Anna McQueen

Bachelor of Nursing, University of New Brunswick, 2001

A Report Submitted in Partial Fulfillment
of the Requirements for the Degree of

Master of Nursing

in the Graduate Academic Unit of Nursing/ Faculty of Nursing

Supervisor: Janice Thompson RN, PhD / Faculty of Nursing

Internal Reader: Petrea Taylor RN PhD / Faculty of Nursing

Ruth Martin-Misener RN PhD / School of Nursing,
Dalhousie University

This report is accepted by the Dean of Graduate Studies

THE UNIVERSITY OF NEW BRUNSWICK

August 2020

ABSTRACT

The Clinical Nurse Specialist (CNS) role, (with nurse practitioners [NPs]), is one of two recognized advanced practice nursing roles in Canada. Over the last decade, CNS integration in the New Brunswick (NB) healthcare system has lagged far behind that of NPs. A community-based exploratory-action project (with formal partnership [MOU] between Nurses Association of New Brunswick and University of New Brunswick), engaged stakeholder participants in a modified Delphi-Deliberative Dialogue, to explore how system-level integration of CNSs might strengthen health human resources for healthcare reform in NB. This report presents NB CNS stakeholders' perspectives on potential CNS role contributions to healthcare reform and their views about renewed advocacy for the CNS role in NB. Based on participants' reviews and discussion of recent CNS-related literature from the Canadian Nurses Association, the project offers recommendations to support their calls for renewed advocacy for sustainable integration of the CNS role in NB.

DEDICATION

I dedicate this work to my husband Robin who has supported me through this scholarly journey. His numerous acts of kindness and words of encouragement have further cemented our love and friendship.

ACKNOWLEDGEMENTS

I would like to take this opportunity to thank sincerely all who provided guidance, support, and assistance to me through project conception to defence of this graduate report.

Firstly, I extend immense gratitude to my academic supervisor Dr. Janice Thompson for helping me realize this project. I consider it a privilege, that I was afforded so much of her time, even into her “retirement”. I benefitted from her extensive scholarly knowledge/experience and seemingly endless patience while she elicited my best work.

I thank Kate Sheppard, Community Partner Advisor NANB, for her time and positive energy which has contributed to the success of this project. Her guidance and support from a regulatory perspective was invaluable.

I thank Julie Martin, administrative support NANB, for her kindness as well as expert logistical support formatting the online questionnaire and organizing physical space and technical support for group meetings.

I thank Dr. Kathy Wilson, academic committee member for sharing her extensive scholarly knowledge and critical insights, encouraging me to strive for excellence.

I pay tribute to Dr Krista Wilkins as an original committee member whose joyful exuberance regarding scholarly research inspired me at the beginning of this project. I miss her.

Finally, I thank the participants who gave so generously of their time, sharing their experiences with me. Clearly this project could not have been realized without your meaningful contributions. Let us make a difference!

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Chapter One: Research Focus and Rationale for the Project

The Canadian Nurses Association (CNA) recognizes two distinct roles for Advanced Practice Nursing as Nurse Practitioner and Clinical Nurse Specialist (CNS). The Nurses Association of New Brunswick (NANB) recently issued an updated Advance Practice Nursing (APN) position statement in 2018, supporting the CNS role (NANB, 2018). The NANB position statement (2018) described the CNS as holding advanced nursing degrees (masters or doctoral), having expertise in a clinical specialty, (i.e. gerontology, cardiology, mental health, perinatal & emergency), and contributing to patient care within a health care team with the potential to improve safety, promote positive health outcomes and reduce health care costs (p.1-2).

The CNS is a consultative and collaborating practicing registered nurse who uses advanced clinical judgement to assess, intervene, and evaluate clients to develop, coordinate, and evaluate collaborative plans of care (NANB, 2018). NANB highlighted five components to CNS practice as: Clinician, Consultant, Educator, Researcher and Leader. The CNA in 2014, defined the core competencies for Clinical Nurse Specialists, in four domains of practice: clinical care, systems leadership, advancement of nursing practice, and evaluation and research. In 2016, the CNA updated its position statement supporting the role of Clinical Nurse Specialists in Canada, in primary care (PC) and primary health care (PHC) (CNA 2016a). More recently, in 2019 the CNA produced the Advanced Practice Nursing Pan-Canadian Framework in which the CNA emphasized the significance of systems-level change within health care for successful integration and sustainability of the CNS role.

In this report I present completed collaborative work from a master's level nursing research project that addresses the integration of CNS practice in the province of New Brunswick, Canada. The research project involved a collaborative agreement between the University of New Brunswick and the Nurses Association of New Brunswick. As the student researcher in this project, my research satisfied partial MN degree requirements. This report presents a full summary of the project, including dissemination of findings, analysis, and discussion of recommendations. In this first chapter, I begin by discussing background and context as factors that provide justification for this research. This background includes a review of Canadian and international literature regarding Clinical Nurse Specialist practice. I also address the relevance and implications of this literature for NB.

Background

In 2012, Charbachi, Williams and McCormick collaborated with the newly formed NB Clinical Nurse Specialist Advisory Committee and engaged research to articulate the CNS role in New Brunswick (NB), in attempts to protect the role from elimination during provincial health care restructuring. The resulting collaboration produced a description of the CNS role (Charbachi et al., 2012) containing five facets of practice: clinician, leader, educator, consultant, and researcher (p. 62). These roles were consistent with then identified components of CNS practice (CNA, 2009). This 2012 study, completed earlier than the 2014 CNA Pan Canadian Framework for CNS Competencies, described the CNS role as an "essential piece of the healthcare puzzle." (p. 67).The authors linked effective health care in NB to key CNS functions such as change agent, research, evaluation of CNS value, policy and program development and

evaluation, consultation, education, evidence-based practice, and role model of expert client care (Charbachi et al., 2012, p. 67). In their work, Charbachi and colleagues presented a vision of a future for the CNS role in NB health care that included increased involvement in research, publication, and improved inter-professional relationships (p. 63).

Despite the presence in nursing literature of arguments calling for greater attention to the need to integrate the role of the CNS in health systems, since 2012, there appears to be little progress reported in terms of integrating the CNS role in NB. While it is difficult to locate confirmed data related to accurate numbers of CNSs in Canada, DiCenso and Bryant-Lukosius indicated the number of self-reported CNSs declined from 2747 in 2004 to 2288 by 2006, with a further reduction to 2222 by 2008 (DiCenso & Bryant-Lukosius, 2010, p. 8; Staples et al., 2016 p. 306). In 2016, there were 28 registered nurses in New Brunswick who identified their positions as CNS (D. Torpe, personal communication, December 4, 2017). In contrast, Nurse Practitioners in New Brunswick have gained title protection through legislation and regulation, and have increased their numbers from 69 in 2012, to 138 in 2017 (NANB, 2017). Most recently, NP integration in NB has been further supported by research conducted in the province measuring outcomes related to NP practice (Rickards & Hamilton, 2020). To date, evaluation and planning for integration of CNS practice in NB appears not to have been guided by CNS outcomes evaluation.

Nursing literature has argued that full integration of the CNS role could be improved by the reduction or removal of persistent system-level practice barriers (Edwards et al., 2011; Kenny et al., 2013). These barriers include: lack of awareness

concerning the recently unified definition of the role, lack of public awareness of the contributions made by CNSs, a persistent absence of title protection, the paucity of clinically specialized CNS education programs, lack of systems-level planning and role integration based on outcome evaluation, and diminishing numbers of CNS positions (DiCenso & Bryant-Lukosius, 2010; Staples et al., 2016, p. 24-25, 306-307).

In their analysis of the CNS role in New Brunswick, Charbachi et al. (2012) specifically addressed barriers and challenges to the CNS role. These barriers included physician resistance, lack of support from administration (i.e. Nurse Managers), lack of role clarity, assigned duties not relevant to CNS practice, and a need for demonstration of the CNS "value" through research that documents contributions to health outcomes and cost savings (p. 63-65). The concept of "value" was expanded by recommending that CNSs needed to be able to articulate the CNS role and to connect improved outcomes to decreased dollars spent (p. 64). This recommendation suggested that outcomes-related research could be an effective element in better integrating CNS practice and in reducing barriers to CNS integration. Finally, the authors argued that "CNS Voice" was needed as a form of professional self-advocacy. This "voice" was encouraged, as a vehicle by which CNSs themselves promote their expertise and influence the health care system (p. 64).

In other discussions that emerged in Canada during the period 2004-2016, APN literature has also repeatedly emphasized the need for concrete action to address barriers e.g. role confusion, title protection, lack of administrative supports, and ineffective evaluation of outcomes. But increasingly in this period, nursing literature has emphasized the need to move beyond understanding these barriers as discrete elements, arguing that action should be multifaceted and focused explicitly on system-level change (Bryant-

Lukosius & DiCenso, 2004; Edwards et al. 2011, CNA, 2016c; Bryant-Lukosius & Martin-Misener, 2016; Kilpatrick et al., 2016b, Staples et al., 2016, p. 307).

It is my position that a more fully integrated CNS role in New Brunswick would contribute, as an integral part of human health resource planning, to best practice suited to population needs in primary, secondary, and tertiary care settings. It is also my position that the CNS role would contribute in important ways to strengthening primary health care (PHC) in NB. Since 2012, the CNS role has not gained title protection, and positions have decreased within Horizon Health (HH) and Vitalité (VH) Currently, there is reduced visibility of an organized provincial presence of the New Brunswick Clinical Nurse Specialist Advisory Committee and reduced discourse and activity concerning the CNS role by this group within NANB.

In contrast to an observed lapse in progress in integrating the CNS role in New Brunswick, since 2012, evidence from nursing research continues to demonstrate the contributions of the CNS role to health care. The literature indicates that CNS contributions have been recognized particularly in areas of mental health, geropsychiatry, ambulatory/outpatient care, oncology, addictions, palliative care, and with First Nations communities (Gehrs et al., 2016; Kilpatrick et al., 2014; Staples et al., 2016, p. 160-192). These and other discussions of the benefits associated with CNS practice have emerged paradoxically, despite ongoing concerns about an absence of clarity concerning the CNS role.

To address role clarification, recent national professional activity regarding the CNS now includes the publication of the Pan Canadian Competencies for Clinical Nurse Specialist (CNA, 2014), the updated release of the CNS position statement (CNA, 2016),

and the formation of the Clinical Nurse Specialist Association of Canada (CNS-C), a national special interest group within CNA, formed in 2016-17, and the Publication of the CNA 2019 APN Framework. The mission of the CNS-C is to begin the process of "national unification" in advocacy of the CNS role by providing a leadership platform through which Canadian CNSs impact and influence cost-effective health care system change to support safe, quality, and superior outcomes (CNA, 2016b).

CNS and Healthcare Reform

The Canadian Nurses Association (2016a) argues that CNSs play an important role in primary health care (PHC), highlighting CNS contributions through innovative nursing interventions and improvements to access to effective, integrated, and coordinated services. The CNA position statement supporting the CNS role in PHC is congruent with global calls for a different approach to primary care (PC) and it is also congruent with the plan for health care reform in New Brunswick.

In 2017, the Premier in New Brunswick presented the "New Brunswick Family Plan" of health care reform. The plan featured improved access to primary care through a shift in focus from hospital-based care to community-based care. The Family Plan features seven pillars: improving access to primary and acute care, promoting wellness, supporting those with mental illness health challenges, fostering healthy aging and support for seniors, advancing women's equality, reducing poverty, and providing support for persons living with a disability (PNB, 2017). These pillars address some key elements of primary health care.

Primary health care (PHC) describes a global approach to health policy and service provision which includes both services delivered to individuals and populations, based on World Health Organization (WHO) core principles of:

- universal access to care and coverage on the basis of need,
- commitment to health equity as part of development oriented to social justice,
- community participation in defining and implementing health agendas,
- intersectoral approaches to health (WHO, 2003).

Primary care (PC) differs from PHC as it describes health care provider-type services delivered to individuals only, typically at the entrance point to the primary health care system (Muldoon et al., 2006). This report includes discussion of the CNS role in both PC and PHC contexts.

Renewed investment in PC and PHC through community access is congruent with global trends of sustainable development and universal access to health coverage as presented by the United Nations (UN), WHO and supported by the International Council of Nurses (ICN), (ICN 2017; UN, 2016; WHO, 2008). The WHO describes five features of a primary care model that would be consistent with primary health care:

- Effectiveness and safety are not just technical matters,
- Understanding people: Person-centred care,
- Comprehensive and integrated responses,
- Continuity of care,
- A regular and trusted provider as entry point (2008, p. 43-52).

These features of primary care can be employed in contradictory ways and problematically - without addressing any element of primary health care. They can be

taken up without considering health equity and without addressing any of the social determinants of health that produce health inequity. In contrast, the WHO argued in 2008 that primary care must be reformed so that it can effectively address PHC. The WHO also argued that primary care requires models of care explicitly focused on achieving health equity, engaged by providers who know how to take action on the social determinants of health.

If health care reform in NB were guided by the WHO analysis, primary care would be reformed in ways that are consistent with PHC. Significantly, when the WHO analysis is considered, nearly every pillar of the NB "Family Plan as consistent with PHC. The specific reforms of PC address health inequity across major social determinants of health (e.g. poverty, gender, age, etc.). They also include "goals and actions to ensure citizens of NB a coordinated, continuum of programs and services from beginning to end of life while shifting focus from hospital-based care to preventative interventions and access to care in communities" (PNB, 2017, p. 3-4).

As New Brunswick strives toward a more sustainable health care system within a primary health care model, I believe the context presents an opportunity for Clinical Nurse Specialists to contribute to increased access and coordination of care within key specialty areas. Those specialties might include mental health, addictions, aging, outpatient/ambulatory care, and chronic illness management. I also believe that all advanced practice nurses (NPs and CNSs) have an opportunity and professional obligation to contribute to optimal health resource planning in NB. I am especially focused on actions that would champion the CNS role as a vital contribution to primary health care and primary care.

Statement of the Problem and Justification

During the last twenty years, advanced practice nursing (APN) has been introduced across Canada with varying levels of sustained integration. In New Brunswick, APN implementation included introduction of the NP role in 2003. Since that time significant progress has occurred in sustaining NP practice in NB and in fully integrating the practice of ~ 140 NPs. In contrast, CNSs have struggled to sustain their practice role in small numbers (~28) in New Brunswick.

Despite CNA efforts to endorse the ongoing relevance of both roles, the practice of CNSs in NB appears at this point to be tenuous, when compared to NP practice. There have not been new postings of CNS positions in recent years in NB and existing positions have been lost to attrition. This disparity in how the two APN roles have been sustainably integrated may be in part due to the success of the Canadian Nurse Practitioner Initiative (CNPI). Launched by CNA in 2006, the CNPI addressed system-level barriers to NP integration across Canada (CNA, 2016c). The CNPI appears to have successfully addressed several system-level barriers to NP integration, as evidenced by significant growth in NP numbers across Canada.

In comparison, since 2012-2013, the topic of sustaining the CNS role in NB has been an ongoing source of concern. The New Brunswick CNS advisory committee (a collective of practicing CNSs) and university educators collaboratively defined barriers to CNS practice (Charbachi et al., 2012). Similarly, Master of Nursing (MN) students in New Brunswick interviewed practicing CNSs and again articulated their concerns about specific barriers to CNS practice in NB (Kenny et al., 2013). What is not known at this time, is how advocacy for the CNS role in NB has evolved since 2012-when these calls

emerged to strengthen the integration of the CNS role in New Brunswick. Those calls in 2012 regarding "value" and "voice" invite reconsideration, specifically by asking how "voice" is connected to professional advocacy and system-level integration for CNS practice in NB.

At a national level, important advocacy for the CNS role occurred through CNA in 2012-2013 when the Association sponsored national roundtable discussions and released a summary report on strengthening the CNS role (CNA, 2013). Soon thereafter, the Association also sponsored consultation and released a Pan Canadian Framework defining core competencies for the CNS role in Canada (CNA, 2014). Next in 2016, the CNA released an updated position statement endorsing the CNS role in Canada (CNA, 2016a). Finally, in 2016-2017, the formation of the Clinical Nurses Specialists Association of Canada (CNS-C) brought CNS leaders together to unify advocacy for the CNS role in Canada. This backdrop of national professional advocacy constitutes a significant endorsement by CNA concerning the importance of the CNS role. Against this backdrop, the chronic problem of dwindling numbers and struggling integration for the CNS role in NB, along with a sense of collapsing momentum in sustaining the role in NB constitute an urgent concern.

Considering these developments, I have viewed the opportunity to address CNS integration in NB as an important problem. During my studies, I viewed the release of the PNB "Family Plan" as an important opportunity, wondering how health care reform may be related to CNS role integration.

In light of current discourse (NANB, 2018) regarding integration of the APN role in primary health care, I believe the CNS can contribute to primary health care. And as a

result, I believe a renewed focus on advocacy for the CNS role is justified. That focus would address integration of the CNS role in and beyond the acute care setting. In the context of health care reform then, there is justification for considering how CNSs can support PHC reform, whether working in primary, secondary, or tertiary settings.

What appears not to have been known in 2012 and what was needed at that moment of ongoing policy development in New Brunswick, was an understanding of how CNSs themselves and key stakeholders within NB viewed the CNS role in the context of health care systems reform. It is not clear whether CNS integration in NB has been focused on system-level change. It is not clear whether CNSs or stakeholders view provincial health care reform as an opportunity for full CNS/APN integration. Finally, what has not been clear is how increased national advocacy for the CNS role in Canada, during the period of 2012-2019 has affected the experiences or activity of professional CNS advocacy in NB.

Project Purpose/Focus and Research Questions

Given the analysis above and a desire to better understand the perspectives of CNSs and stakeholders, I collaborated in preliminary conversations with key CNSs and stakeholders and determined that a descriptive-exploratory and collaborative research project would be useful to them. The focus of my research then was to engage in a participatory action research project with expert CNSs and stakeholders in NB, exploring their perspectives and experiences concerning CNS role integration in NB. In later chapters, I review the formal research design and methods of the project in more detail. The purpose of the project was to initiate stakeholder dialogue regarding the future of the

CNS role in NB. Questions of interest for the project were organized around two major themes:

1. Stakeholder perceptions of CNS contributions to proposed Health Care Reform
2. Stakeholder perceptions related to renewed national advocacy for the integration of the CNS role in Canada and NB.

The two key research questions for this project were:

1. In the current context of calls for health care reform in NB (PNB, 2017), how do key nursing stakeholders in NB view/envision the contributions of the CNS role?
    1a. What contributions to reform within the "Family Plan" (e.g. primary care and primary health care) could be made by the integration of the CNS role?
2. In light of recent national advocacy for the CNS role in Canada (e.g. 2016 updated CNA position statement, formation of the CNS-C), how do key nursing stakeholders in NB view the desirability and feasibility for renewed CNS advocacy in NB?
    2. a. Is there a perceived need for renewed advocacy among CNSs and allies to strengthen the integration of the CNS role in NB?

This project was guided by these questions because I believe that long term integration of the role of the Clinical Nurse Specialist is an important asset in making primary health care sustainable in Canada and in New Brunswick. The potential contributions of the CNS role in strengthening a sustainable primary health care model in NB is significant and should not be overlooked.

Chapter Two: Literature Review

Evolution of APN/CNS role in Canada

In Canada, nurses have accepted increased professional responsibilities within expanded nursing roles, caring for patients and populations in remote and rural areas of Canada, for over one hundred years. Advanced practice nursing roles emerged as a way to provide primary health care services to populations where there were no physicians, such as in Northern Newfoundland and Labrador in the 1890's with the Grenfell Mission (Staples et al., 2016, p. 3).

The advanced practice role of clinical nurse specialist emerged in the 1940's and was formally introduced internationally and in Canada in the 1960's (Kaasalainen. et al., 2010), gaining prominence within an expanding hospital-based health care system across Canada. These early "specialists" provided advanced inpatient care resulting from advanced nursing knowledge and clinical skills. This role continued to evolve in support of bedside nursing, affected by increased medical technology, increased complexity of inpatient care, and nursing shortages through the 1960's (Staples et al, 2016, p. 4).

In the 1970's in Canada, nurses sought formal education to support their expanding roles of consultation, policy and program development, and advanced clinical practice. Political and economic forces of health care decentralization, consumer participation, physician shortage/specialization, and emphasis on community-based health care outcomes, created the need to examine the scope of nursing practice (Staples et al., 2016 p. 4). In the 1970's, masters level nursing education programs were established and focused on clinical specialization in support of advanced nursing roles (CNA, 2012a).

Master's prepared nurses working in CNS roles were most often employed in acute care settings throughout the 1960's and 1970's. Although employers who developed CNS positions recognized the value of advanced education and clinical expertise, CNS role implementation and integration have been challenged by a lack of systems level planning. Challenges in sustaining the role over time have included role ambiguity, lack of recognition in the organization, and lack of administrative support (Kaasalainen et al., 2010, p. 43). Another challenge was described as limited systems level evaluation of CNS outcomes (CNA, 2012b). These limitations in system level planning continue to affect full integration and viability of the CNS role in Canada (DiCenso & Bryant-Lukosius, 2010, p. 21).

National advocacy for the CNS role began in the 1980s as evidenced by the Canadian Nurses Association (CNA) release of its first position statement on the CNS role in 1986. CNA described the CNS as a Registered Nurse holding a master's degree with advanced knowledge of a clinical specialty, and advanced skills in consultation, research, and quality improvement. In addition, significant CNS role components were identified as clinical practice, education, research, consultation, and leadership/change agent (Staples et al., 2016, p. 5). For the next 20 years the CNS role would consistently be defined by these five components with emphasis placed on the advanced clinical practice as a hallmark of the CNS role (Kaasalainen et al., 2010, Staples et al., 2016, p. 5).

In 1989, national level advocacy for the CNS role continued with the establishment of the Canadian Clinical Nurse Specialist Interest Group (CCNSIG). In 1991 the CCNSIG became a national interest group with CNA, and in 1998 changed its

name to the Canadian Association of Advanced Practice Nurses (CAAPN). These activities of national advocacy occurred during the hospital budget cuts of the 1980s-90s resulting in the elimination of many CNS positions across Canada (Staples et al., 2016, p. 5-6). Although the role continued to formally exist, the identified barriers to CNS practice of role ambiguity and lack of organizational/administrative support continued to negatively affect CNS role integration (Staples et al., 2016, p. 6).

The ten-year period of the 1990's brought about health care budget cuts (US and Canada) creating new challenges for the CNS role as many were hired into education and administration positions, de-emphasizing the clinical component of the role (Kaasalainen et al., 2010). However, by 2000, many clinically oriented senior nursing leadership and educator positions in acute care had been eliminated. Given this, once again the CNS role became the focus of acute care clinical leadership in nursing, supporting floor nurses to provide high quality patient care through the integration of evidence into practice (Staples et al., 2016, p. 6 & 306).

In 2005, in response to rising health care costs, a perceived shortage of physicians and a renewed emphasis on primary health care services, the federal government provided funding for the Canadian Nurse Practitioner Initiative (CNPI), sponsored by CNA (Kaasalainen et al., 2010). This initiative has relevance because in Canada, advanced practice nursing has always included both CNSs and NPs. Prior to the CNPI, many jurisdictions had formally changed their nurse practice acts to legally define the scope of NP practice. The mandate for the CNPI was to create a framework for the continued implementation, also integration and sustainability of the NP role in Canada's health care system. The follow-up CNPI report included discussions of standardization of

NP education, regulation, recruitment and retention, professional practice and liability and a core competency framework for NPs (CNA & CNPI, 2006). This initiative contributed to a shift in employer focus to the APN role of NP as a cost-effective means to meet shortfalls in primary care delivery (Kaasalainen et al., 2010). Concurrently, the number of CNS positions continued to decrease, aided in part, by role confusion between the NP and CNS role and lack of title protection and role clarity for the CNS role (Donald et al., 2010).

In the period 2012-2014 national advocacy for the CNS role again emerged from the Canadian Nurses Association, strengthened by a decision-support synthesis (DSS) conducted by DiCenso and Bryant-Lukosius in 2010. The DSS recommended that a pan-Canadian multidisciplinary task force involving key stakeholder groups to be established, to facilitate the implementation of advanced practice nursing roles (DiCenso & Bryant-Lukosius, 2010, p. 2). In 2012, the CNA convened a roundtable discussion of stakeholders to consider direction and strategies for addressing the CNS role in Canada. The background paper released from this consultation proposed a CNS "Value Proposition" to include the systems-level contributions of the CNS role such as improved health system outcomes related to client health status, functional status, quality of life, satisfaction of care and cost efficiency (CNA, 2012b, p. 21). In this background paper, key stakeholders recommended that the DSS be used to develop a national vision of the CNS role (including establishing consensus on definition and components/features of the role). Stakeholders also recommended that the DSS be used to inform and engage key stakeholders at provincial and national levels, cultivate local and national champions for the role, support CNS role development in key priority areas for national attention with

short, medium and long-term goals, identify promising models of CNS practice, develop key messages for a range of audiences, and identify responsibilities for specific actions (CNA, 2012b, p 22).

Immediately following the release of the background paper, stakeholders were again convened to complete an important policy level document related to the CNS role. That document was published by CNA in 2014: The Pan Canadian Framework of Core Competencies for the Clinical Nurse Specialist. The framework defined the CNS role as consisting of competencies in four domains: Clinical Care, System Leadership, Advancement of Nursing Practice, and Evaluation and Research (CNA, 2014, p. 5-8).

Global Emergence of APN Roles and Sustainable Development Goals

In the same period of CNS role implementation in Canada, important and related international trends have occurred. This section of discussion focuses on significant dimensions of international influence that are relevant to the integration of advanced practice nursing, including CNS integration at system levels. In authoring a brief on advanced practice nursing for The International Council of Nurses (ICN), Bryant-Lukosius and Martin-Misener (2016) noted that ICN recognizes the two most common APN roles as Nurse Practitioner and Clinical Nurse Specialist. The APN was defined as a:

> registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice" (Bryant-Lukosius, & Martin-Misener, 2016).

Significantly, the ICN briefing emphasizes that "*what makes the roles advanced and the means through which healthcare reform and innovation can be achieved*, is the

integration of clinical practice with responsibilities for education, organizational leadership, professional development, evidence-based practice and research" (Bryant-Lukosius & Martin-Misener 2016. p. 1). This understanding of the CNS role clarifies their contribution as a means through which healthcare reform is achieved. Given the ICN briefing, it is important to consider the extent to which CNSs themselves have understood their role in this way. How CNSs understand their role in relation to health care reform is a compelling issue.

The ICN has also addressed CNS outcomes. The briefing (Bryant-Lukosius & Martin-Misener, 2016) lists CNS role-specific outcomes as including; *improved access to health through case management* (risk assessment/management, monitoring/evaluation of care and patient advocacy), *improved quality of life* (increased survival rates, lower complication rates, improved physical, psychological wellbeing) of people with chronic illness, *improved health promotion practices* (immunization rates, weight management, participation in cancer screening), *improved recruitment and retention of frontline nurses* (mentoring, education, support), and *reduced hospital admissions* (p. 3).

Acknowledging that over 70 countries already employ or are interested in employing APNs, the ICN brief recognized multiple factors influencing international governments. These factors include governments now recognizing contributions of APN roles to primary health care systems, governments responsibility in responding to shortages of physicians and other health care workers, and the need to address increased complexity of hospitalized patients (Bryant-Lukosius, & Martin-Misener, 2016, p. 301).

CNSs and NPs are viewed as essential components of country-level human resources for health as their roles are perceived as fluid and adaptable in response to

population needs of countries around the world. As such, APN roles contribute to the World Health Organization's (WHO) strategies for evidenced-based Human Resources for Health (HRH) Policy. APN's are understood to contribute to the WHO objective of optimizing the current health workforce by ensuring effective universal health coverage. The ICN briefing on APNs argues that significant cost savings are realized by expanding APN roles, related to efficiency, reduction of costs associated with overuse of health care services, inappropriate staff mix, inappropriate hospitalization, errors and suboptimal quality of care (Bryant-Lukosius & Martin-Misener, 2016, p. 4).

The ICN brief describes potential APN role contributions to seven of the WHO's Sustainable Development Goals (SDG). Those APN role contributions address the SDG goals of "no poverty," "good health and wellbeing," "quality education," "gender equality," "decent work and economic growth," "reducing inequities," and "partnerships for the goals" (Bryant-Lukosius, D. & Martin-Misener, R., 2016, p. 5-6). Detail regarding each of these contributions is elaborated here. In terms of addressing poverty, good health, and well-being, the authors argued that APNs contribute through improving access to health promotion, prevention services, treatment of illness for at-risk hard-to-reach populations, enabling people through their health to take advantage of employment/self-employment opportunities. In turn, APNs play a role in enabling people to participate and contribute to social and economic systems (p. 5-6).

Continuing, the brief also argued that APNs contribute to quality education and gender equality through their roles as clinical faculty and preceptors within schools of nursing around the world. These contributions provide opportunities to more women (and men) in a predominantly female workforce to complete advanced education in nursing.

Educational empowerment provides them with knowledge, skills, capabilities to assume clinical leadership positions in a country's health care system, therefore reducing gender inequalities (Bryant-Lukosius & Martin-Misener, 2016, p. 6).

The brief further argued that APN roles contribute to decent work and economic growth. This includes reducing inequalities as women find fulfilling careers in new and challenging health care settings as well as contributing to a healthier population in their own country, all resulting in economic growth. APN roles also improve social and economic wellbeing and status leading to a healthier life among the most vulnerable populations within countries (p. 6). Finally, the brief argued that as APN roles are implemented and expanded in all countries of low, medium, and high income, they build inter-sectoral partnerships to meet health, economic and educational goals (p. 6).

In considering the complexity of integrating advanced practice nursing in whole systems of health care delivery, the ICN acknowledges that fluidity and adaptability of APN roles can lead to role confusion. This is especially relevant when health care decision-makers are often not aware of, or have difficulty translating evidence supporting APN roles within the contexts of their own health care systems. The ICN brief recommends that policy-makers consider CNSs and NPs as powerful instruments for health care innovation and reform to achieve policy priorities related to improving health of "at risk" and hard to reach populations, reducing the burden of chronic illness, and achieving health care delivery efficiencies (p. 6-7).

The ICN brief further recommends that national nursing associations (NNA) employ leadership to leverage existing resources for APN education, practice, and policy. NNAs need to achieve greater consensus on role definition, standards of care, role

competencies and terminology, advocate for systemic and evidenced based approaches to role development, connect with stakeholders to change policy and systems transformations, educate and build leadership skills among stakeholders for systems solutions that utilizes APN roles, advocate for dedicated APN educational funding, and establish knowledge translation plans to promote understanding and awareness of APN roles, and reduce barriers to role uptake (p. 7-8).

Finally, the ICN brief concluded that APNs, applying their advanced education in participatory transformational leadership, translation of evidence to practice, collaboration with stakeholders, and participation in research, can contribute to development of sustainable health care policy and systems change (Bryant-Lukosius & Martin-Misener, 2016, p 5). It is important to recognize the force of the ICN's statement. Globally, APN roles are seen as integral health human resources, not experimental innovations. They are viewed as already contributing to universal access to health care and health care reform. Here in Canada, this assessment suggests that the full systems-level integration of the role of CNSs is as necessary as the integration of the NP role. It also emphasizes that unlocking the potential of the CNS role will contribute positively to system reform and improved health care delivery. Finally, a fully integrated CNS role would provide health care and social policy makers a valuable human resource, supporting Canada to achieve crucial sustainable development goals.

Canadian Centre for Advanced Practice Nursing Research

Canadian nurse researchers continue to produce analysis and evidence demonstrating the benefits of APN role integration in health care systems. This research includes evidence about the effects of CNS practice. Since 2000-2001 there has been a

concerted effort to engage in research that addresses outcomes of CNS practice, although at the present time, this is less robust than emerging research addressing outcomes related to NP practice in Canada.

An important event influencing availability of Canadian research on advanced practice occurred in 2000-2001 when the Canadian Health Services Research Foundation partnered with Canadian Institutes of Health Research to increase the pool of Canadian nurse researchers. This collaboration resulted in the formation of a research chair for graduate and post graduate students and junior faculty in health services and policy research to focus on applied research for Advance Practice Nursing (CCAPNR, 2017). The research chair was eventually located in the Canadian Centre for Advanced Practice Nursing Research (CCAPNR) at McMaster University in Hamilton, Ontario. As a result of this formative work, Denise Bryant-Lukosius and Alba DiCenso (among others) have produced prominent research highlighting the contributions and challenges of integrating the CNS role in health care systems.

In 2014, Bryant-Lukosius and other researchers from the CCAPNR provided analysis for the Global Summit that summarized the status of APN integration in Canada (Bryant-Lukosius et al., 2014). That report described significant factors enabling the development and implementation of APN roles at federal, provincial/territorial and organizational systems levels including Pan-Canadian frameworks of competencies for APNs, the CNPI, nationally funded APN research, International Council of Nurses' recommendation that APNs should be masters prepared, increased educational programs for APNs, and the PEPPA framework for systematic introduction, implementation and long term sustainability of APN roles. (Bryant-Lukosius et al., 2014, p. 3).

This 2014 report outlines the many challenges to APN role development, emphasizing those found in four domains of education, regulation, payment, and practice. Though some of these challenges have been previously discussed as being relevant for the Canadian context, they are addressed again here as part of an international, global context. In terms of education, Bryant-Lukosius and colleagues at CCAPNR reported that a main issue affecting CNSs and NPs is the lack of focused clinical specialty education. Factors affecting access to education were also discussed, being related to Canada's vast geography with diverse population needs across provinces/territories, shortage of faculty, and costs related to small numbers of students (p. 4). Limited access to education programs specifically designed to produce CNS graduates continues to be a serious systems level barrier for full integration and sustainability of the role in Canada.

Regulatory challenges were also discussed in the 2014 report, with analysis that reflected a more global context. Regulatory challenges included discussion of how a lack of title protection continues to contribute to difficulties. Challenges around title protection impede the ability to monitor CNS practice patterns and to ensure that RNs working in CNS positions have the knowledge and expertise to perform their roles safely and effectively. While the CNS's scope of practice is understood as being the same as the RN, the analysis in the 2014 report argues that credentialing mechanisms need to be developed to strengthen role recognition and to ensure that those in CNS positions have the necessary education and experience (Bryant-Lukosius et al, 2014, p. 4).

Also discussed in the international context of the summit were payment challenges, including a lack of specific protected funding for APN roles within health care agencies. Shrinking budgets and limited funding threatens already existing APN

roles and prevents opportunities to introduce innovative APN led care models (p. 4). In addition, role confusion and lack of role clarity by stakeholders was reported as a major barrier to new cycles of CNS role implementation. Invisibility of CNS work, lack of CNS national leadership, low profile or lack of champions at key policy and decision-making tables, and lack of data collection/research regarding APN practice outcomes were also listed as CNS practice barriers (Bryant- Lukosius et al, 2014, p. 5).

At the conclusion of their analyses, Bryant-Lukosius and colleagues (2014) described opportunities for greater APN role integration in an aging Canadian population. They focused on increased attention to health promotion, disease prevention, managing chronic illness, community-based primary health care services, care for elderly, palliative care, and care for vulnerable populations. Emerging models of team-based care, APN led Family Health Teams and new CNS roles were discussed (including some introduced by Health Canada). These included new models for First Nations and Inuit communities health care innovations featuring APN roles (p. 5).

In collaboration with others (from Queens, Ryerson, Dalhousie, and Montreal universities), nurse researchers affiliated with CCAPNR have surveyed the perceived impact of the CNS role in Canada. In 2016, Kilpatrick et al. produced a scoping review that examined structures and processes influencing the CNS role, discussed issues related to implementation and integration, and documented satisfaction and intent to stay in the CNS role. The findings from this work concluded that CNS practice positively impacts patient access to care, patient safety, quality of care, health care costs, evidence-based practice, and improved nursing practice (Kilpatrick et al., 2016a; Kilpatrick at al. 2016b, p. 159).

Kilpatrick and colleagues examined the relationship between clinical and non-clinical dimensions (education, research, organizational leadership, professional development, and consultation) of the CNS role and role implementation. Role implementation was defined as a continuous process in which stakeholders including government policy makers, health care administrators, CNSs, and other providers take steps to facilitate the development of all CNS role dimensions in the context of patient needs and addressing actual or potential barriers to role development (Kilpatrick et al., 2016a, p. 90). By applying the Structures/Processes/Outcomes model (to evaluate health care services) defined by Donabedian (2005), these researchers examined relationships among individual, organizational, and systems level structures and the effects of these structures on outcomes and processes. The authors examined positive team dynamics to determine how those dynamics affect the implementation of all CNS role dimensions and how they affect patient outcomes.

The researchers used multiple regression analysis to determine which structural/process/outcome factors were associated with good CNS role development. Findings indicate that the individual structures of years in the CNS role and specialty certification, the organizational structure of employer understanding the role, and the systems structure of an urban catchment area, significantly and directly affected a positive team dynamic and good CNS role development. Conversely, the authors also found that the organizational structure of full-time employment directly and negatively affected team dynamics.

In other findings from this study by Kilpatrick et al (2016a), researchers determined that the organizational structures of full time employment and seeing patients

in practice directly and positively affected the CNS role outcome of Consultation (Kilpatrick et al., 2016a, p. 98). The study also found that the process of positive team dynamics and the organizational structures of seeing patients in practice and having an office located close to clinical team, directly and positively affected the outcome of the Clinical role dimension. Conversely, organizational structures of having an annual performance appraisal and job description directly and negatively affected this same outcome (p. 99).

Other findings from the study address factors associated with CNS role outcomes. These findings address the extent to which CNSs are able to practice or develop their practice in all dimensions of the role. For example, the organizational structure of accountability to nurse manager had a direct and positive influence on developing the CNS role outcome of organizational leadership, meaning that nurse managers supported CNS clinical leadership. Conversely, the system structure of unionization of CNS position, and the organizational structure of seeing patients in practice directly and negatively affected the outcome of organizational leadership. Finally, the analysis reported that accountability to a non-nurse manager directly and negatively affected the CNS role dimension of Education (p. 99).

In terms of analyzing how organizational structures can better support CNS implementation, Kilpatrick et al. also examined the relationship between the organizational structure of *using a Framework to guide role implementation* and other variables. Their findings indicate that using a framework to guide CNS role implementation positively influenced the implementation of all role dimensions (2016a, p. 96).

This last finding suggests that it is important for CNS stakeholders to considering systems structures and processes that affect CNS role implementation and integration. In learning that the organizational structure of *using a Framework for APN implementation* positively affects the implementation of all CNS role dimensions, CNS stakeholders in NB may also be helped by using such a system-level framework. Fortunately, during the last five years, that type of system-level framework has been evolving for use in supporting the long-term integration of APN.

Beginning in 2016, researchers at CCAPNR have recently collaborated with key stakeholders, including researchers, APNs, health care administrators, in Switzerland, Germany, and the US to consider systems-level implementation and evaluation of APN roles in Switzerland. The ultimate goal of optimal health outcomes for patients and families through delivery of high quality, patient-centered and cost-effective care was the driving force of this collaboration with a targeted audience of government policymakers, health care funders and administrators and leaders of nursing associations in Switzerland (Bryant-Lukosius et al., 2016).

This collaborative group examined several APN evaluation-models for areas of focus, major concepts, applicability, strengths, and limitations. A consistent feature deemed to be desirable for APN evaluation models was the integration of Donabedian (2005) concepts of systems structures, processes, and outcomes (Bryant-Lukosius et al., 2016, p. 205). From this examination, the working group developed evaluation objectives for three major phases of APN role development: Introduction, Implementation and Long-term Sustainability (p. 205-206). Significantly, another result

of this international participatory collaboration was the development, in Canada, of the PEPPA Plus Framework for systems level APN role implementation and evaluation.

PEPPA and PEPPA Plus Frameworks for Systems-Level Change

Since 2004, Canadian stakeholders have recommended participatory and collaborative approaches for implementing APN roles. Bryant-Lukosius and DiCenso (2004) introduced the "Participatory Evidence-based Patient-focused Process for Advanced Practice Nursing" (PEPPA) Framework, an approach that has been used extensively to strengthen community-based collaboration in implementing APN. The PEPPA Framework is based on Participatory Action Research (PAR). This research paradigm uses collaborative and democratic approaches to engage action among individuals or stakeholders from organizations and/or communities in promoting health and social change (Bryant-Lukosius & DiCenso, 2004). Drawing on PAR, the PEPPA process begins with defining the population, stakeholders, or community, describing the current model of care, and engaging key participants in collaborative commitments for change. Continuing over nine steps of participatory engagement, the PEPPA action framework ends with long-term monitoring of the APN role and evaluation of the practice model as outlined in step nine. The PEPPA framework has enjoyed widespread international acceptance as a way to introduce and implement advanced practice nursing (Boyko et al., 2016).

Having focused first on the initial development and implementation of advanced practice roles, PEPPA has been revisited more recently and updated. Revisions have responded to encouragement from researchers in Canada and internationally, to provide empirical evidence that can be used to evaluate various systems-level impacts related to

APN/CNS roles. It is important to note that the original PEPPA Framework did not provide specific guidance on system-level integration nor did it address how to evaluate system-level outcomes that are directly relevant for long term APN integration. The original framework was focused more specifically on earlier phases of introducing or implementing APN roles.

The transition from *implementing* APN roles to *integrating* APN roles has involved an important shift in focus. That shift includes realizing that for APN roles to be sustained over time, whole system change must be addressed. Without that shift of focus, systems can all too easily experience losses (e.g. due to attrition) and revert to earlier states. In an important paper addressing these elements of whole system change for APN integration, Edwards et al. (2011) examined the impact of whole systems change on APN roles, using the NP role as a study exemplar. Edwards and colleagues defined whole systems change as "a complex, social and ecological phenomenon, characterized by dynamic interactions among institutional, political, educational and at times legislative forces involving multiple stakeholders and multiple sectors within micro, meso, and macro system levels over time" (p. 9).

In taking this complex and structural view of APN integration, the authors suggested that it is essential to take a comparably structural approach in monitoring and evaluating dimensions that influence long term integration of APN roles.

> The NP movement was strongly influenced by ongoing, dynamic interactions among stakeholders, sectors, structures, and processes that facilitated or blocked the path to change at various points in time. This suggests that building sustainable whole system change is a long range project that requires longer term funding for programs and research to not only evaluate outcomes but also monitor implementation (p.10).

The analysis of Edwards et al. also emphasized the impact of leadership on whole systems change, arguing that diverse, multilevel, and multisectoral forms of leadership are needed to mobilize change within practice, administration, education, research, and policy (p. 11). The authors also argued that leadership must be consistent, sustained and enacted at the micro (excellence in practice), meso (organizational advocacy), and macro (jurisdictional policies, legislative frameworks & funding) levels of health care systems (p. 11).

This analysis identified points of leverages and blockages, demonstrating systems factors affecting APN role integration. These points of leverage extend beyond the strategic use of research evidence focused on patient outcomes. Leverage points are categorized as **structures** of professional practice, education, legislation, policy, and resources, or as **processes** of leadership, lobbying, advocacy, partnerships, networking, knowledge development and exchange. Blockages include lack of sufficient, or poor leverages, unintended and or deliberately created barriers that hinder, delay, scale down, or stop system changes (p. 17).

In reflecting on the implications of the analysis by Edwards et al., it seems likely that a consistent systems level change approach is needed in NB. This includes requirements for addressing structures and processes, including assessing opportunities for leverage, and addressing blockages. Such an approach to systems-level change specially requires multi-level leadership to recognize and act upon strategic points of leverage, advocating for the CNS role, and to address blockages, hindering development of the CNS role, at the micro, meso and macro systems levels.

Since 2011, Canadian APN stakeholders have shifted to call for this kind of systems level/whole systems change approach to integrate APN. Researchers and leaders have called for a framework that emphasizes the involvement of stakeholders in participatory work to evaluate the impact and integration of APN at whole systems-levels. For example, Bryant-Lukosius et al. (2016) developed a prototype national framework that includes explicit consideration of the Donabedian (2005) concepts of structures, processes, and outcomes. They call for involvement from varied perspectives of patients (including populations and communities), families, health care providers, teams, and decision-makers (managers, policymakers) within the broader health care system (Bryant- Lukosius et al., 2016).

In 2019 the CNA released a landmark framework incorporating this approach to APN integration in Canada. The document, *Advanced Practice Nursing: A Pan Canadian Framework* presents CNA's endorsement of the use of the *PEPPA Plus Evaluation Matrix* to address systems' structures and processes needed for sustainable systems level integration of NP and CNS roles in Canada (CNA, 2019, p. 42). How this important work is or will be taken up in NB specifically to support CNS role integration is a compelling issue.

CCAPNR and CNS: Academic-Practice Partnership

In another important collaborative project in 2016, researchers at CCAPNR published the results of an academic-practice partnership between CCAPNR and practicing APNs in Ontario and Alberta. The aim of the project was to improve patient care by strengthening the capacity of APNs to integrate research and evidenced-based practice activities into their day-to-day practice (Harbman et al., 2016, p. 382). This

partnership provided education and mentorship by university based nurse-researchers for 20 APNs (Ontario-11, Alberta-9) working in acute care settings and resulted in all participants rating increased confidence and skills for initiating (proposal writing), participating in, and applying results from, nursing research (p. 385-386).

From this project, Harbman et al., identified essential components for successful academic-practice partnerships (increasing research capacity) as: Organizational values that support a culture of inquiry, organizational values that prioritize research, protected time for APNs to participate in research activities, and provided access to PhD prepared researchers and mentors (2016, p. 388).

This project is significant in that it demonstrates the potential for and value of CNSs integrating the CNS core competency of research and evaluation into their daily practice. Also, this project brings to light the question of how a sustained infrastructure in existing systems might support the research APNs engage. This is especially relevant for CNSs practicing in provinces where there are limited linkages between their practice and local health sciences universities.

Outcomes Research

A final area of literature related to the implementation and integration of the CNS role in Canada concerns evidence or findings about the effects or outcomes of CNS practice. Early research from CCAPNR and elsewhere has focused on evaluating clinical and system outcomes associated with APN practice.

Early Canadian studies demonstrated positive contributions of CNS-led neonatal transitional care (increased maternal confidence and satisfaction, and reduced demand on health care systems for the care of low birthweight infants), and increased patient-

reported satisfaction of overall care from health care teams with CNSs (Lasby et al., 2004; Forster et al., 2005). In this same timeframe, Carr and Hunt demonstrated how CNS led initiatives positively contributed to front line nurses' practice in geriatric care (evidence to practice, teaching, mentorship, clinical decision making, increased RN confidence and satisfaction) (Carr & Hunt, 2004).

In 2011 Newhouse et al. published a systematic review of Nurse Practitioner and Clinical Nurse Specialists' practice outcomes between 1990-2008. The aim of this scoping review was to determine if outcomes related to APN provided care, differed from other providers (physicians, teams without APNs). The results of this scoping review indicate that APNs provide effective, high-quality patient care to specific populations in a variety of settings and have an important role in improving patient care (p. 248). Particularly, the CNS role in acute care settings can reduce length of stay, cost of care, and reduced complication rates for hospitalized patients (p. 246-247).

More recently, outcomes research (in Canada) has focused on effectiveness and cost-effectiveness findings for NP's and CNSs, including CNSs working in outpatient settings in alternative and complementary roles. In 2013, Kilpatrick et al., reported the results of a descriptive cross-sectional survey of practicing CNSs in Canada. The study described practice patterns and perceived impact of the CNS role. CNSs reported positive impacts of their practice on *clinical care* (including critical thinking, planning therapeutic interventions, assessing learning needs of patients and families, and drawing on different sources of knowledge). They also reported positive effects of their practice on *research* (including acting as knowledge broker to translate evidence into best practice guidelines, policies, and protocols). They reported positive effects of their practice on *organizational*

leadership (including monitoring safety and quality improvement of care, supporting organizational culture of professional growth, and advocating for advances in the delivery of specialty services). They next described positive effects of their practice on their *professional development* (including continuing education activities, reflective practice, and dissemination of research knowledge). And finally they reported positive effects on consultation to health care providers to improve quality of care, address complex health needs of patients, families, and improvement of delivery of health care services (Kilpatrick et al. 2013, p. 1532).

In 2014, Kilpatrick and colleagues published a systematic review of the effectiveness and cost-effectiveness of the CNS role in outpatient settings. Evidence from this review supports the CNS role, as *effective,* as complimentary, or alternative caregivers, in outpatient settings, for those living with chronic illness such as asthma, diabetes, rheumatoid arthritis, and cancer (Kilpatrick et al., 2014). These researchers rated the evidence supporting *cost-effectiveness* of the CNS role in outpatient settings as low-moderate and recommended the development of objective performance measures, including costs, to systematically monitor quality and outcomes of care provided by CNSs (p. 1121).

Beginning in 2015, nurse researchers conducted systematic and methodological reviews of economic evaluations of CNS and NP roles in Canada. The results of these reviews indicate that while important evidence exists about the positive outcomes of APN, the majority of existing APN research does not adequately present *cost-effectiveness* of these roles because the evidence is of low-moderate quality (Marshall et al, 2015; Lapotina et al., 2017). Lapotina and colleagues recommend applying the

Guidelines for the Economic Evaluation of Health Technologies, developed by the Canadian Agency for Drugs and Technologies in Health (CADTH) as a foundation for economic evaluation of CNS and NP roles (p. 81).

These studies, taken together with Kilpatrick et al (2016a, 2016b) point to evidence of CNS effectiveness in terms of clinical and systems outcomes. It is also the case that more outcomes-related research has been completed for NP practice than for CNS practice in Canada. The review of this literature suggests that more rigorous studies focusing on the *cost-effectiveness* of the CNS role at systems levels are needed to link the CNS role to cost savings and that the "quality" of the data require attention. Planning for sustainable integration of the CNS role should include thoughtful planning for how outcome evaluation will address health outcomes, also clinical, structural, and economic outcomes.

Conclusion

NB's healthcare systems face many challenges related to higher than national average prevalence of obesity, smoking, poverty, and chronic illness within an aging largely rural population (NB Health Council, 2016; PNB 2015-2016; STATS CAN, 2011, 2016, 2017). The contributions of CNSs specializing in chronic illness management and prevention, healthy aging, and other clinical specializations such as Indigenous health, mental health and addictions or palliative care have the potential to contribute to the optimal delivery of primary care services through advanced assessment, collaboration, and evaluative coordination of care across the continuum of life.

The cumulative body of literature reviewed in this chapter suggests that CNSs have been identified as an important resource for addressing these challenges in primary

care and primary health care. The literature suggests that key stakeholders should be considering the potential contributions of the CNS role as this translates to value added outcomes and long-term sustainability of desired reform for primary health care. The literature also suggests that CNS advocacy is an important element in integrating the CNS role. This speaks to re-engaging CNSs themselves to articulate and demonstrate to key stakeholders the potential of the role within the context of a NB sustainable primary health care model. Of equal importance, the literature also speaks to the use of a systems level approach and a systems level framework for CNS integration in NB, which has recently been demonstrated as effective by the CNA. Finally, the literature review affirms that it is crucial for CNSs themselves to participate collaboratively with key stakeholders in advocacy, in system level reforms through policy level assessment, and in evaluation of the CNS role.

Chapter Three: Methodology

The purpose of this project was to explore and initiate stakeholder dialogue regarding the evolution, status, and future of the Clinical Nurse Specialist role in NB. Given the context of CNS role integration in Canada and the proposed status of health care reform in NB, research questions for the project addressed two major concerns:

1. In the current context of calls for health care reform in NB (PNB 2017), how do key stakeholders in NB view/envision the contributions of CNS role to that reform?

    1.a. What contributions to PNB reform in primary care and primary health care could be made by the integration of the CNS role?

2. Given recent national advocacy for the CNS role in Canada, how do key nursing stakeholders in NB view the desirability and feasibility for renewed CNS advocacy in NB?

    2. a. Is there a perceived need for renewed advocacy among CNSs and allies to strengthen the integration of the CNS role in NB?

Theoretical and Methodological Foundations

The project drew on theoretical and methodological foundations found in exploratory descriptive inquiry, community-based collaborative action research (CBCAR), and deliberative dialogue (DD).

Exploratory-Descriptive Design.

An exploratory-descriptive qualitative design was a necessary component of this project, allowing me and participants to explore and describe the phenomenon of current CNS practice in New Brunswick. Employing various qualitative techniques to understand an issue, this approach explores concerns that need solutions with the intent of describing the issues (Gray et al., 2017, p. 29). Researchers using this design value the perspectives of participants and their "voice" in determining and defining concepts relevant for investigation. Hearing from key participants and understanding their perspective on what matters in the story and how it should be "measured" or "studied" is a necessary first step.

Exploratory-descriptive design is also relevant when those involved have the intent to begin to develop interventions (e.g. health care policy changes), and to eventually evaluate those interventions (Gray et al., 2017, p. 70). Because the project sought to explore and describe the experience of stakeholders in integrating the role of

the CNS in New Brunswick, consideration of the experience of participants who were stakeholders was crucial.

This exploratory-descriptive qualitative design yielded knowledge and understanding from the participants' perspectives, using several techniques of data collection and analysis (for example group discussions and an online questionnaire (Grove et al., 2013, p. 66). This approach was appropriate to begin to understand participants' history and perspectives on the evolution of the CNS role in NB, particularly since 2012. The descriptive approach allowed the research team and participants themselves to explore and describe perspectives in ways that shaped our understanding of aspects of CNS practice in NB.

Community Based Collaborative Action Research.

In addition to using an exploratory-descriptive research approach, the project intentionally invited participants to engage with each other using elements of Community-Based Collaborative Action Research (CBCAR). Researchers implementing CBCAR engage participants in action-oriented commitments as a form of nursing advocacy. In this approach the meaning of empowerment and the context that shapes it can be fully explicated, with communities directing the way to move through the situation at hand (Pavlish & Pharris, 2012, p. 61). The application of the CBCAR approach for this report is compatible with an exploratory-descriptive qualitative research design as both approaches seek to disclose the perspective and "voice" of participants while considering their wisdom and experiences as important sources of empowerment.

The community of engagement defined for this report were key stakeholders with interests in advanced practice nursing and human resource planning in NB. This includes

CNS representation from CNS interest groups. (Nurse Practitioners, although important partners in integrating advanced practice nursing in NB, were not viewed as essential participants in this report at the time because the focus was on understanding CNSs' experiences integrating their role in NB.) The collaborative nature of this project was a crucial and defining characteristic, involving formal collaborative agreement between the University of New Brunswick and the Nurses Association of New Brunswick. As the professional regulatory body in New Brunswick, NANB agreed to be a community partner for this project, entering into a formal agreement with UNB, to facilitate the student researcher's work in completing this project. In November 2018, a formal memorandum of understanding (MOU) was signed by UNB and NANB, designating K Sheppard, NANB Senior Advisor (Nursing Education and Practice) as the Community Partner Advisor for the project. Ms. Sheppard represented NANB throughout this project and agreed to act as a member of the project research team (see Appendix A, B for UNB-NANB Memorandum of Understanding and Scholarly Work Project Agreement).

In terms of action-oriented commitments in CBCAR, clarification is helpful for understanding how communities or groups determine to engage research for advocacy. The notion of vulnerability or working with marginalized groups may be difficult to appreciate in the context of this research project because professional nurses are organized, have resources, and means to exercise professional power. However, given previous discussion (in chapter one) of diminishing numbers of CNSs in practice, I consider the sustainability of the CNS role to be vulnerable. Perceived vulnerability concerning the CNS role has been expressed by persons other than myself, including

scholars who related that vulnerability to the many challenges and barriers to full integration discussed in nursing literature (Staples et al., 2016, p. 306; Bryant-Lukosius & Dicenso, 2004). Vulnerability in this context includes the loss (through attrition) of CNS positions previously created, and through this, the risk of an eventual disappearance of the role as numbers dwindle to an unsustainable level. As indicated in chapter one, I contend that the sustainability of the CNS role and the vulnerability of specific CNSs in terms of elimination of their positions within health care systems not only affects them and the profession of nursing but all health care participants, families, and populations through lost potential of improved health outcomes and cost savings.

The CBCAR approach to nursing research presents a participatory grasp of the whole focus of concern. It recognizes that phenomena are not measurable as a monolithic "truth" but are subjectively and socially constructed based on how the viewers perceive those phenomena (Pavlish & Pharris, 2012). A description of multifaceted factors affecting CNS role integration resulting from this study will be an outcome created by the participants as well as the researcher and will not claim to represent a universal "truth."

CBCAR is congruent with nursing values of advocacy and the ethics of social justice, as the nurse researcher, through collaboration, engages in actions with others to further nursing's contributions on behalf of patients and communities. The methodology of CBCAR is also needed to expose and address underlying problems within institutions, policymaking, and health care delivery systems as these influenced advanced practice (Grace, 2014, p. 159). The goal of this project was to discover a way forward for the systems-level integration of the CNS role, supporting health care reform that is relevant

to the community, and also relevant for stakeholders involved in health human resource planning in New Brunswick.

Deliberative Dialogue.

A final methodological dimension of the project concerns the use of deliberative dialogue as a method. Through initial literature review, I determined that engaging key nursing stakeholders in NB and representatives from CNS interest groups is best achieved through a Deliberative Dialogue (DD). As described by Plamondon and Caxaj (2018), DD is a strategy for enabling knowledge-to-action (KTA) that "recognizes the complex relational factors existing within health care systems, while bridging the gap between what is known (evidence) and what is done in practice" (p. 18). DD involves purposeful, facilitated conversations among stakeholders who come together around a common interest to consider "best practice" possibilities, as evidence is integrated into the context of their own practice (Plamondon & Caxaj, 2018, p. 20). In recent years, DD has been used and identified as a useful approach for transforming health services policy and delivery. It has been recommended for moving advanced practice nursing change forward-through co-created solutions with stakeholders (Oelke et al., 2016 p. 81).

While DD influences KTA, it is especially well suited as a data generating tool for CBCAR nursing research as it moves groups through a relational process of evidence-informed, contextualized collective decision making and action (Plamondon & Caxaj, 2018, p. 19). Plamondon and Caxaj see health care systems as complex social entities containing cultural norms, practice beliefs, structural, procedural and policy expectations, and professional standards (2018, p. 19). These same authors encourage the examination

of KTA gaps to go beyond a reductionist view of what the individual "should be doing" (based on evidence), to a more integrated approach of knowledge production and inclusivity, as might be seen through a relationally-driven lens (p. 19). This DD approach is especially relevant given recent shifts in APN literature to focus on system level change.

Through the practice of relational engagement and relational accountability with stakeholders, the CBCAR researcher acts as facilitator using DD to realize mutual understanding and KTA commitments. Relational engagement is described as a purposeful attentiveness to how people are invited and enabled to connect with others around a knowledge-to-action challenge (Plamondon & Caxaj, 2018, p. 21). This translates to the researcher-facilitator being able to inspire mutual goals for collective action, inviting a purposeful mix of perspectives and preparing participants for an open exchange of ideas and perspectives (p. 21).

I began to build relational engagement in preparation for this project by initiating partnerships through collaboration and mentorship within NANB and Horizon Health Network (HHN) during clinical hours as part of my master's degree program, beginning in 2017. Those relational connections continued through dialogue and consultation through all phases of this scholarly project.

Relational engagement with NANB, through preceptorship (with two practice advisors) supported exploration of the CNS role in NB and Canada from professional and regulatory perspectives. This early partnership nurtured discussion of the history of APN roles in Canada and NB (recent NP developments) while focusing on the current context

of CNS practice in NB. Ongoing discussions with NANB included exploration of CNS role barriers to practice, as well as, national and provincial advocacy for the CNS role and how that has impacted the CNS role in NB, specifically in the period following the work of Charbachi et al., in 2012. These discussions included exploration of the PNB "Family Plan" of health care reform as it pertains to APN roles in NB, and the potential fir CNS role contribution to health care reform in NB. It became clear that a project exploring the current context of CNS practice in NB would be mutually beneficial. This early collaboration with NANB provided the foundation supporting this scholarly project between myself as a UNB masters student and NANB. The results of relational engagement with NANB as the community partner, became a formalized research partnership, with the development of the Memorandum of Understanding (MOU) between UNB and NANB, and a Scholarly Work Project Agreement (SWP) among UNB, NANB and me, in November 2018.

The community partnership with NANB provided continuing opportunities to connect with CNS stakeholders otherwise unknown to me (e.g. former Vitalité Professional Nursing Advisor, CNS-C, Dept Health, and CNSs) while I continued email correspondence and in-person meetings with other CNSs from HHN who had preceptored me during course work.

Relational accountability includes navigating and negotiating roles and expectations through the promotion of reciprocity and transparency (Plamondon & Caxaj, 2018, p. 23). The researcher-facilitator is responsible to the stakeholder group to support the mobilization of ideas generated by the group, by enacting competencies encouraging

relational collaboration. Plamondon and Caxaj (2018) describe these competencies as: demonstrating flexibility and a willingness to let go of research goals in favour of shared ownership of knowledge generated, moving the group from a place of mutual understanding to a commitment to action, and safeguarding vulnerabilities of the stakeholder group (p. 24).

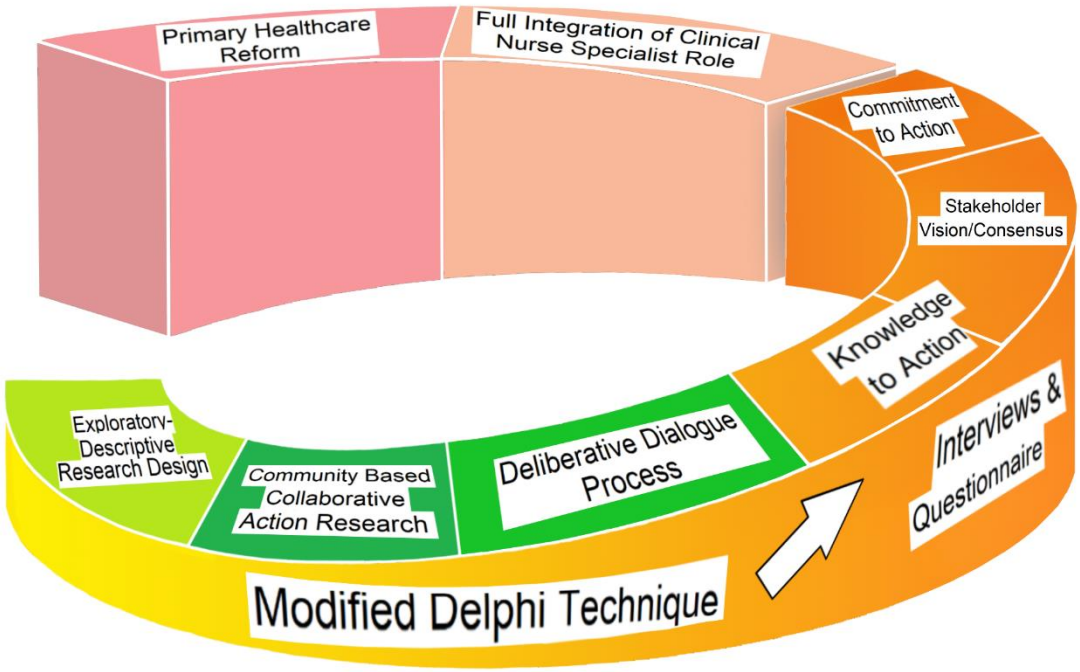
I integrated relational accountability through all phases of this project by verbally communicating my scholarly intentions and motivations, sharing details of this research project through the letter of Information/Invitation to Participate, Letter of Informed Consent (See Appendix C, D). I also shared all findings with the participant group for feedback and confirmation of accuracy of analysis and engaged in regular member checks for face or content validity of findings with my community partner advisor from NANB. Following data analysis, I provided all stakeholder participants with a Summary of findings.

The application of a DD strategy is compatible within the exploratory-descriptive CBCAR approach of this project and supports the CNS stakeholder group in a collaborative KTA experience. The DD strategy is compatible with CBCAR as both rely on relational principles of reciprocity, learning and responsiveness to inspire collective community action and social transformation while bringing attention to health care systems as complex social entities (Pavlish & Pharris, 2012, p. 86; Plamondon & Caxaj, 2018). By acting as facilitator, I supported the stakeholder community as they collectively considered nursing literature within the context of their own practice, also

inviting them to envision possibilities for a fully integrated CNS role New Brunswick's health care system.

To illustrate the integration of previous discussion concerning exploratory-descriptive design, CBCAR and DD methodology, Figure 1 presents a conceptual model of how this project incorporated principles and features of these research approaches. In subsequent sections of this report specific methods are discussed for collecting and analyzing data that are consistent with these methodologies and relevant to explore the integration of the CNS role in New Brunswick.

Figure 1: Conceptual Model of Research Project



Data Collection Methods-Incorporating Modified Delphi Techniques

The central research questions for this report required DD among key CNS stakeholders in NB. Within that approach, specific techniques and methods for data collection and analysis were chosen to engage stakeholders' perspectives about integrating CNS practice in NB. The choice about how to engage data collection and analysis was based on the following assumptions:

- A process of CBCAR and DD would support renewed discussion among stakeholders.
- Exploration/dialogue among stakeholders would be well timed now in NB and may contribute to policy level discussions for systems reform.

- A dialogue would contribute to some consensus about integrating the CNS role in NB.
- Consensus about a fully integrated CNS role in NB could support and contribute to health systems policy change for reform.

Based on these assumptions and the integration of exploratory/descriptive research, CBCAR study design, and DD strategy, modified Delphi techniques of data collection were chosen as appropriate for this report. These techniques included a series of group interviews and a survey, with data collection occurring in three sequential "rounds" among experts (Adler & Ziglio, 1991). This method was relevant for this research project, based on its ability to ascertain consensus from expert members who have a stake in the integration of CNS practice in New Brunswick. For a visual representation of how Delphi technique fit into my conceptual model of this master's project, see Figure 1.

Classic Delphi technique is described in literature as containing four key characteristics of: 1. Anonymity between participants, 2. Iteration with controlled feedback of group opinion, 3. Statistical aggregation of group response, and 4. Expert input (Goodman, 1987). Expert input is described as gathering information from a select group of specialists, experts, and informed advocates to predict or recommend future events, explore policy, and/or make suggestions or decisions (Goodman, 1987).

Historically, anonymity has been achieved in Delphi research through the use of mail or web-based questionnaires sent to individual panel experts. Iteration with controlled feedback is accomplished through successive questionnaires or interviews that

include information on group opinion, representing collective status, while allowing the experts to add content or modify their previous view (Goodman, 1987). Researchers can form a description of group opinion based on statistical (descriptive and inferential) findings for group and individual responses, gathered from questionnaires/surveys containing rating scale type questions. A description of group opinion can be expressed as percentage agreement, and also by using measures of central tendency such as mean, mode and median scores (Goodman, 1987; Diamond et al., 2014).

As described in research methods literature, the early classic approach in using Delphi methods was designed to gain consensus from a panel of experts regarding a chosen subject (Keeney et al., 2006). Helms, Gardner and McInnes (2017) posit that the Delphi approach can achieve consensus on research and policy questions, while Trevelyan and Robinson (2015) suggest the method is appropriate when there is uncertainty related to lack of agreement, and incomplete knowledge. Powell (2003) describes the Delphi technique as valued for its ability to structure and organize group communication.

Rowe and Wright suggest combining Delphi technique with other data collection techniques to enhance participant creativity and commitment (2011, p. 1490), while Clibbens et al. recognize numerous variations of Delphi technique in recent health care research (2011). Modified Delphi technique has emerged as an accepted data collection technique when strict adherence to classic Delphi are not appropriate to meet the aims of a given research study. Variations include the number and design (qualitative or quantitative) of Delphi “rounds”, reported levels of participant anonymity and definition

of “consensus” (Hasson et al., 2000). For this research project modified Delphi data collection occurred over three “rounds”, collecting qualitative and quantitative data.

In a 2014 systematic review of the Delphi technique, it was reported that almost three quarters of all Delphi studies were conducted within health care (Diamond et al., 2014). Recently, the Delphi approach has been used to achieve consensus regarding a variety of nursing practice issues ranging from critical care interventions to measuring outcomes of nursing practice (Palomar-Aumatrell et al., 2017; Sim et al., 2017)

Delphi Consensus

Methodological discussions of Delphi technique are often focused on the notion of what constitutes consensus. A recent systematic review of Delphi technique reports that 98% of all Delphi studies claim consensus as their aim, but considerably fewer studies specified how consensus would be recognized or measured (Diamond et al., 2014). Keeney, Hasson and McKenna (2006) posit that criteria for what constitutes consensus needs to reflect the ethical significance of the subject, for example life and death decisions should require a high level of consensus while some policy decisions may be made from lower measures of agreement. Trevelyan and Robinson (2015) suggest that studies are improved when consensus is differentiated from stability and agreement of group responses. Powell (2003) suggests establishing a percentage level of group agreement on items as an indicator of group consensus (e.g. consensus defined as 60% of participants rated a specific item as highly feasible). Alternatively, Diamond et. al. (2014) recommends determining a clear distinction between consensus and level of agreement.

Gray, Grove and Sutherland (2017) support repeating "rounds" until consensus is achieved and caution that "majority rules" may not equate to true consensus (p. 417).

The outcome of these discussions of consensus in Delphi methodology is that it is important for the researcher to describe what is meant by reporting "consensus" (if that claim is made) and to specify how those statements are determined to be valid indicators of consensus. For this project, specifying a level of agreement among the majority of the participants was the goal. Establishing complete consensus was not the aim. A majority level of agreement (60%) was obtained regarding group desirability and feasibility of engaging specific knowledge-to-action items related to the integration of the CNS role. This occurred through analysis of Likert-style rating questions in an on-line questionnaire and by comparing these to qualitative data emerging from the DD process throughout the duration of this project.

There are many advantages and challenges in using Delphi techniques, as presented in research literature. The Delphi technique is praised for its ability to widen knowledge, stimulate new ideas, and motivate participants (Powell, 2003). Other advantages are listed as: no geographical limitations, greater number of participants, and wider range of participant perspectives (Keeney et al., 2005; Trevelyan & Robinson, 2015). In comparison, Delphi methods are analyzed critically for lack of rigor, and lack of sample heterogeneity (Clibbens et al., 2011; Hasson & Keeney, 2011). Hasson and Keeney propose that issues of establishing rigor arise from Delphi data being both qualitative and quantitative. This criticism is somewhat irrelevant in choosing the modified mixed-method Delphi techniques for this project, because the qualitative,

exploratory, CBCAR and deliberative dialogue methodology for this project engaged participants in ways that require different kinds of rigor. As suggested by Hasson and Keeney (2011), establishing trustworthiness for this project was more focused on the participants themselves considering credibility, dependability, confirmability and transferability in the findings and recommendations of the project. Pavlish and Ferris describe credibility as accurately identifying emerging patterns that are consistent with the data collected (2012, p. 250). Dependability results from researchers adhering to systematic processes during data collection analysis, while confirmability emphasizes that the study took place (p. 251). Transferability occurs when research consumers decide whether their own contexts are similar enough to the research setting, to transfer the findings (p. 251).

In next sections of this chapter, I describe the actual methods and techniques of sample recruitment, data collection, and analysis as these occurred in this project.

Recruitment of Participants: Nonprobability Sampling Methods

Because the aim of this project was to gain insight and initiate dialogue toward system level integration of the CNS role in health care reform in NB, the project relied on nonprobability sampling. Gray et al. (2017) describe three common methods of nonprobability sampling as: theoretical, purposive/selective, and network/snowball (p. 344). For this report both purposive/selective and snowball/network sampling methods were employed.

Purposive sampling of participants requires the conscious selection of research participants based on identified criteria and is one of the most used sampling strategies in

CBCAR. Purposive sampling is also required for Delphi technique (Pavlish & Pharris, 2012, p. 179; Hasson et al., 2000). According to Adler and Ziglio (1996), selective sampling in Delphi research must ensure that the choice of participants produce responses more meaningful than views offered by uniformed individuals and that the "expert panel" will create a collective intelligence greater than any one individual (p. 14-15). For this report, purposive sampling was employed by approaching some (not all) expert stakeholders already known to the researcher, also by following their referrals to others, building on relational engagement described by Plamondon and Caxaj, (2018).

I applied a second sampling technique of Snowball/Network. This technique is described as a process by which researchers can add to their research sample through the referral of other individuals who meet the selection criteria by the initial research participants (Gray et al., 2017, p. 347). This networking sampling provided access to previously unknown CNSs and others who had the potential to add depth of knowledge, richness of experience and vision, alternate views, contributing to the consensus work within the Delphi technique. To address the central research questions of this report, I invited and gathered opinions from a purposively considered sample of expert panel members. For the purposes of this project, I determined that the stakeholder interest group I wanted to engage included key nursing stakeholders, those who have an interest in supporting sustainable systems-level integration of CNS practice in New Brunswick and to a lesser extent in Atlantic Canada. That stakeholder interest group also included individuals who have knowledge of or experience with the implementation of the CNS role in New Brunswick. For this report, the accessible sample included key nursing

stakeholders in NB's health care system (excluding the regional health agency employer) and also representative from another province as the Atlantic region representative for the national interest group the Clinical Nurse Specialist Association of Canada.

Adler and Ziglio (1996) posit that consensus can be obtained within classic Delphi technique from a sample size of 10-12 expert panelists (p. 14). For this project sample size was limited to 11 expert participants, representing the above affiliations. The sample size was determined by consideration of the chosen research approach, by the scope of the project as an example of master's level student research, also by resources available.

Gray et al. (2017) describe the concept of sample element as the individual unit of a sample and indicate that this can be a person, event, behaviour, or any other single unit of study (p. 330). For this report, elements are persons, and are referred to as "participants" or "panel experts" as both are consistent with terms found in qualitative research and modified Delphi technique.

Alternatively, an element may be defined as a single person who represents a unit-for example, a single person who credibly represents the CNS special interest group or a single person who represents those in nursing who have an interest or stake in integrating CNS practice.

Sampling or eligibility criteria included a list of characteristics for inclusion that were developed from the research purpose, design, and literature review (Gray et al., 2017). Adler and Ziglio (1996) claim that there cannot be statistical reasons for sampling criteria within a Delphi technique; rather participants should be chosen based on

knowledge and practical engagement with the issue under investigation along with their capacity and willingness to contribute to the exploration of a particular problem (p. 14), The sample was chosen from the accessible (to the researcher) group of nursing experts within the provincial and regional area

Consistent with nonprobability sampling, it is important to note that sampling criteria for this report were also purposely focused to facilitate renewed discussion and action amongst key stakeholders in New Brunswick. Hasson and Keeney (2011) suggest that to improve rigor in decision-making and policy Delphi studies, sample selection should include experts who are decision-makers, in hierarchal positions with divergent opinions (p. 1697). Given this, it is hoped that qualitative data gathered from the DD process (e.g. semi-structured group interviews) might be of some interest to the broader context of CNS practice in other contexts.

Consistent with the previous discussion of sampling issues that are relevant to this project, the criteria for selecting nursing participants in this study were:

- Each panel expert (a nurse expert) represented key institutions involved with professional nursing in Canada, Maritimes, and/or New Brunswick (e.g. NANB, NBNU, UNB, HHN, VHN, CNS-AC, CNSs, and NB Dept Health)
- Each panel expert (a nurse expert) had working knowledge of primary care, primary health care and health care reform (based on distributed reading list),
- Each panel expert (a nurse expert) had knowledge of and/or lived experience in the CNS role,

- Each panel expert (a nurse expert) had the capacity to contribute to decision making processes within their respective institutions,
- Each panel expert (a nurse expert) had basic knowledge of and access to a computer,
- Each panel expert (a nurse expert) had essential English spoken and written skills and
- Each panel expert (a nurse expert) had the time available to participate in a research project, attend two group meetings and to complete one online questionnaire.

Homogeneity vs Heterogeneity of Sample

A critique of purposive/selective sampling within a Delphi technique is frequently focused on the bias created through the deliberate choice of panelists as the composition of the expert panel will affect the outcome or consensus (Keeney et al., 2006). Literature suggests that researchers need to strive for balance between sample size and homogeneity/heterogeneity as it best meets the aim and scope of the Delphi study (Rowe & Wright, 2011; Keeney et al., 2001). Trevelyan and Robinson (2015) suggest that while heterogeneity of the sample is desired to ensure diversity in opinion, the work of a smaller more homogenic panel may be more efficient (p. 425). Rowe and Wright (2011) propose creating artificial heterogeneity through the creative inclusion of case studies, role playing and devil's advocate as part of the first round of interviews or surveys (p. 1489).

I attempted to increase heterogeneity of the expert panel by inviting representatives from various institutions and work experience and to engage the group in discussion regarding the potential of the CNS role. Not all intended and invited stakeholders agreed to participate and some who initially agreed were not able to stay engaged. I discuss some of the consequences of homogeneity resulting from this sampling process below. The divergent perspectives presented by representation of these various institutions contributed to a robust initial discussion of the future of the CNS role in NB.

Retaining Research Participants

To achieve optimal results from a panel of experts, it is crucial to recruit and retain the best available research participants. Nursing literature suggests that the researcher's initial positive, informative, and culturally sensitive communication strongly affects the participants' decision to join a study (Gray et al., 2017). Keeney, Hasson, and McKenna (2006) posit that establishing rapport and nurturing a relationship increases the likelihood of a participant's continued commitment to the Delphi process. Rowe and Wright (2011) suggest that recruitment through "snowballing" contributes to easy agreement of panel invitations and self-rated "experts" exhibit less "drop out" (p. 1489), while Powell (2003) supports the recruitment of potential users of the findings as being more invested in the project. Trevelyan and Robinson (2015) present various techniques to minimize attrition such as: recruiting only those who have a keen interest in the topic, making participants feel like "partners" while encouraging a sense of "ownership" of the project and keeping Delphi response-turnaround times brief (p. 427).

Based on their own introductions during our discussions, each participant self-identified as an "expert" nurse having a professional interest in the CNS role within NB's health care system. Based on their conversations with me, they are all potential users of the findings. As a facilitator employing the DD skill of relational engagement, described earlier, I fostered a sense of shared ownership of knowledge with each panel expert supporting continued participation in this project. I initiated relational engagement during participant recruitment phase by personally contacting each potential participant, and with their permission, emailing a Research Project Introductory/Invitation to Participate letter (see Appendix C).

Formal participant recruitment took place over three months (May-July 2019) with initial contact by email. All initial correspondence contained the same recruitment script containing a brief description of the study with an invitation to discuss potential participation. Eleven participants were contacted via email. One potential participant declined after the initial email contact. Ten participants were contacted by follow-up telephone or in-person meetings to discuss, in more detail, the proposed project and their ability to participate. A final email was sent to ten participants with the official letter of information and invitation to participate.

All ten potential participants were advised that this invitation to participate email would be followed with a "Doodle Poll" (computer scheduling software) to establish a timing for the first DD session. After consultation with my project practice advisor, several timings were offered within the "Doodle Poll" for the period August to September 2019. This initial Doodle Poll did not result in enough consensus amongst the

group for a meeting. A second Doodle Poll was organized for dates in September and October. A date with agreed upon and timing was determined through group consensus (7/10 participants responded with common timings for availability, while two participants indicated very limited availability, and one did not respond to both polls), for October 2, 2019 at NANB Headquarters. While a decision to proceed without all ten potential stakeholders was difficult, it seemed best to move ahead with those members who were ready, willing, and able to dedicate time in their calendars. This decision reduced the number of available participants for the first round of discussion to seven.

It was decided that NANB as community partner would provide optimal meeting space and video conferencing technical support. The participant group, booked for the first meeting, included two CNSs (oncology, surgical program, both from HHN); the Atlantic Representative of Clinical Nurse Specialist Association of Canada (CNS-C) (also a CNS in Mental Health First Nations in Nova Scotia); Director of Graduate Studies Nursing University of New Brunswick; Principal Nursing Advisor to NB Department of Health; Director of Nursing Professional Practice, HH; and a Senior Practice Consultant from NANB.

On the date of the first meeting, two regrets were received resulting in five participants attending the first Delphi round-DD as follows: 2 CNSs (oncology, surgical program, both from HH); Director of Graduate Studies Nursing UNB; Practice Consultant NANB; and by distance, the Atlantic Representative of Clinical Nurse Specialist Association of Canada (CNS-C) (also CNS Mental Health First Nations). Also, in attendance was K Sheppard, Community Advisor NANB representing the community partner for this project.

An email was sent as a follow-up to four (of the original ten participants who responded to the Doodle Polls) who were unable to attend the first Delphi round of group dialogue, offering an invitation for them to participate starting with the second round of data collection in the online questionnaire if they could commit to the second group discussion (round three) to be scheduled in November/December 2019. Two participants did not respond to the follow-up email. One participant could not commit to attending a group discussion in November/December due to already scheduled work demands. The fourth participant agreed to the offer, and following signed consent and non-disclosure, was emailed a copy of the Power Point presentation of Oct 2, 2019 and the PDFs of all required readings, bringing the total sample of participants to six.

Attrition of participants resulted in no representation from HH as an employer of APNs, although the inclusion of the employer in the sample was sought. As such, their perspective, as a key stakeholder and major employer of APNs in NB, is not represented in this project. This is recognized as a limitation for this scholarly project that is discussed, in more detail, later in this report. Also, while every attempt was made to include participation from all key CNS stakeholder institutions, I was unable to secure representation from VHN and from the NBNU. I recognize these missing perspectives as an important limitation for this project, to be discussed later in this report.

Data Collection, Processing and Analysis

The modified Delphi technique requires a series of "rounds" of surveys, questionnaires or interviews involving expert panelists, sometimes building toward consensus, with many variations exist regarding the preparation of participants, number of rounds, types of questions asked, definition of consensus, and specific

quantitative/qualitative data collected. Diamond et al. (2014) noted that most studies conducted two or three rounds with consensus being the aim.

Data Collection-Round One Modified Delphi.

In recent Delphi studies participant preparation takes the form of participant selection interviews, introductory emails, and background information as part of round one (Paans et al., 2017; Palomar-Aumatell et al., 2017; Sim et al., 2017). In the first round of many classic Delphi studies, the researcher employs a limited number of open-ended, semi-structured interview questions based on a literature review, allowing participants free scope to elaborate on the chosen topic as an idea generating strategy (Keeney et al., 2001, p. 196; Powell, 2003, p. 378).

Based on this background, to begin the DD process within a CBCAR approach, an initial meeting was designed to "set the stage" or prepare the participants (expert panel "stakeholder community") for an open exchange of ideas and perspectives while sharing details of the aim and design of the project as well as Delphi technique. In Delphi technique it is recommended that all panel members are introduced and properly identified to establish credentials and level of expertise, assuring the group of the ability of all members to contribute to solving the problem of interest (Adler & Ziglio, 1996). These same authors posit that the Delphi technique is enriched through team building exercises to remove perceived barriers among panel members and to develop mutual understanding (1996, p. 37).

Activities of the initial meeting on October 2, 2019 included: introductions, Power Point presentation containing a description/aim of the study, obtaining informed

consent, team building discussion (round robin dialogue), and distribution of the list of recommended readings to prepare for the Delphi questionnaire to follow (modified Delphi round two). The first half of the initial first round, in-person meeting served as a "meet and greet" and focused on establishment of relational engagement (Plamondon & Caxaj, 2018 p. 22) with the chosen stakeholder expert panel "community." This portion of the initial meeting was not recorded until informed consent was obtained from all participants. The second half of the meeting included a semi-structured discussion with the group, digitally recorded, with data analysis used to inform the Delphi questionnaire in the second round. A same day follow-up email was sent to all participants containing PDF files of all required reading for the online questionnaire.

Data Collection-Round Two Modified Delphi

Three days following the first Delphi round of group dialogue, I sent all participants an email inviting them to participate in the online questionnaire. Instructions for participating in round two included a pre-amble (joining instructions) and a web link to the questionnaire. Each participant completed the questionnaire separately and privately.

Development of the questionnaire occurred first during the research proposal approval process, with involvement of my academic and practice advisors. Actual administration of the questionnaire required collaboration with my advisors and technical administrative support from NANB. That administrative support included formatting the original content of the questionnaire to fit the secure digital platform (Methods Group LLC-2003-Survey Methods) used by NANB. Although the questionnaire was sent to

known participants, the questionnaire platform provided complete anonymity of participant responses by eliminating identification of participant email addresses. Therefore, I received anonymous notifications of participant completion and access to all completed questionnaires. As the questionnaire was a collaborative work, both UNB and NANB logos were incorporated into the questionnaire and ongoing technical administration of the questionnaire remained with NANB (see Appendix E for a copy of the questionnaire).

The round two questionnaire was designed to elicit participants' expert opinion regarding the CNS role. In each item of the questionnaire, participants were asked to respond to a specific published reading/document concerning CNS practice in Canada. There were six "required" on-line readings – and each reading was probed for participants' reactions and opinions. This Delphi method of using a questionnaire was consistent with methodological literature, using an individual survey to contribute to group consensus by exploring individual participant's responses. The questionnaire was also designed to seek quantification through Likert-style ranking in some round two responses. These were aggregated and compared with round one qualitative findings (Powell, 2003). In this project, the second round of Delphi data collection involved the use of an originally developed 36-question (18 questions, 2 parts each) online questionnaire (Methods Group LLC-2003-Survey Methods computer software), administered to six participants.

The questionnaire was organized into two main sections, the first section contained 28 (14 items, 2 questions each) questions regarding six required readings

concerning APN/CNS in Canada and NB. The readings were deliberately and carefully chosen to reflect current Canadian APN literature, including the most recent national advocacy and provincial discussion of APN/CNS roles (Charbachi et al., 2012; CNA 2014; CNA 2016; CNA 2019; PNB 2017 & Roussel, 2016). The use of these readings and an invitation for each expert panel member to respond to the readings is also consistent with the research approach chosen for this project. Both Deliberative Dialogue process and Delphi method support the sharing of research evidence, and discussion of the evidence to establish a baseline of common knowledge and to begin group dialogue.

Delphi round two data were collected to obtain participants' expert opinion regarding three key areas of concern: 1.) Recent national level advocacy for the CNS role, 2.) CNS contributions to systems-level change within the PNB 2017 Family Plan of health care reform, and 3.) Knowledge-to-action commitments to renew advocacy for the CNS role in NB. Each survey question contained space for qualitative comments and space for Likert-style ratings of *desirability* and *feasibility* in reaction to the reading. Desirability and feasibility responses were scaled as follows: Very Desirable = 4; Desirable = 3; Undesirable = 2; Very Undesirable = 1. Ranking for feasibility was scaled as follows: Very Feasible = 4; Feasible = 3; Unfeasible = 2; Very Unfeasible = 1. The Likert-style ranking questions required responses with four possible options without a midpoint value to avoid a "dumping ground" of neutral responses (Trevelyan & Robinson, 2015, p. 426).

In the second section of the questionnaire participants responded to eight (4 questions, 2 parts each) questions with comments and Likert-style numerical ratings for

desirability and feasibility of knowledge-to-action (KTA) commitments for renewed CNS advocacy in NB.

Data Collection-Round Three Modified Delphi

Once responses to the Delphi questionnaire were collected, and initial data processing/analysis for themes and level of group consensus had begun, scheduling for a final collaborative panel (modified Delphi round-three) meeting was engaged. The process of achieving consensus among participants as to a date for the final meeting was complex and required more than one round of calendar review.

Participants completed their responses to the Delphi questionnaire on November 18, 2019. After consultation with the project committee, a "Doodle Poll" was created and sent to six participants to reach consensus for a final participant group DD (Delphi round three). An attempt to schedule this meeting to occur by the second week of December had been a group goal. It was highly desired that all participants be able to attend this meeting for DD, however it was not possible to gain consensus about everyone's calendars. Consequently, this first "Doodle Poll" was not successful in finding a date for reconvening the group before year's end. As part of ongoing relational engagement and accountability, I kept all participants informed of the status of scheduling, also continued using "Doodle Poll" while attempting to schedule the final modified Delphi round.

A second "Doodle Poll" was sent to six participants with a unanimous consensus for the final group discussion to take place on January 17, 2020 at 1030-1330h. NANB once again provided the physical space and video conferencing technology for this third Delphi round. As had been the case in the first round of in-person meeting, one

participant located outside New Brunswick could only attend virtually by videoconferencing.

Delphi method supports the sharing of the research evidence, and discussion of evidence to establish a baseline of common knowledge and to begin group dialogue. The focus of the final round three meeting was to share the findings from round one and round two and to facilitate follow up discussion through semi-structured interview questions posed to the group. The final discussion in round three was structured by considering again the two major research questions for this project: 1.) Given stakeholder discussions, what are participants' perspectives about the contributions of CNS practice to health care reform in New Brunswick? And 2.) What are participants' perspectives about the need for renewed advocacy to integrate the CNS role in New Brunswick more fully?

On January 17, 2020 six participants attended the final modified Delphi round of group dialogue. There I presented data analysis and findings from rounds one and two of data collection using PowerPoint. Qualitative findings were based on data from the first digitally recorded discussion and included analysis of qualitative comments collected from the questionnaire in round two. Quantitative findings were based on data from round two, the online questionnaire. These quantitative data included descriptive measures of central tendency for Likert-style numerical ratings of desirability and feasibility. During the final PowerPoint presentation, participants offered some brief responses, followed by one hour and seven minutes of group dialogue. The group dialogue was digitally recorded for transcription as a third modified Delphi round of data

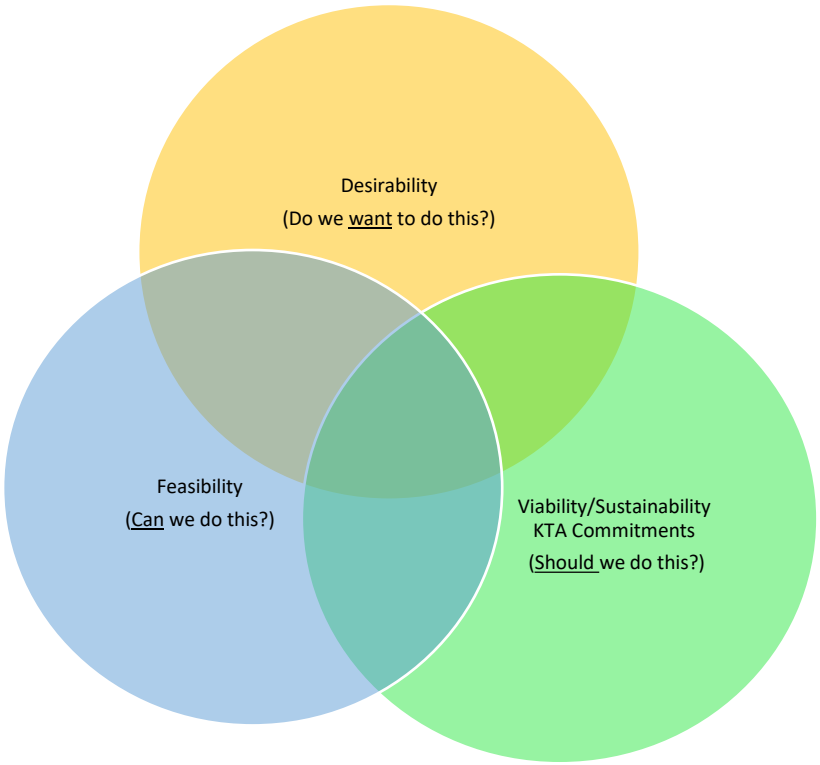
collection for final analysis. The final group discussion was aimed at achieving Knowledge-to-Action commitments from the stakeholder group to continue dialogue regarding systems level integration of the CNS role in NB.

Desirability, Feasibility and *Viability:* Knowledge-to-Action Commitments

During the last hour of round three (deliberative dialogue), a Venn diagram was used to present findings about the desirability, feasibility and viability of knowledge to action commitments (see Figure 2 below). This analysis and discussion was engaged to assist the group to transition from having heard the findings to considering and discussing the implications of the findings. The rationale for this hour of discussion and deliberative dialogue was based on conceptual approaches to *sustainable innovation.* As used in interdisciplinary research related to social, professional, economic, and political change, sustainable innovation is considered by addressing relationships between desirability, feasibility, and viability, as these are related to innovations in system change (Hunsaker, & Thomas, 2017).

In using a Venn diagram to illustrate these components of innovation, I engaged discussion of findings on desirability and feasibility with participants, facilitating their consideration of "knowledge to action" commitments. In this segment of deliberative dialogue, participants considered the meaning of **desirability (**"Do we want to do this?"). They also considered the meaning of **feasibility** ("Can we do this?") as well as **viability/sustainability** ("Should we do this?") (See figure 2 for Venn Diagram).

Figure 2: Desirability, Feasibility, and Viability of Knowledge-to-Action Commitments



Analysis of these concepts in the last hour of group discussion informed a final summary report to stakeholders. Their feedback has been integrated in the discussion of findings in this report.

Data Processing and Analysis

Data processing and analysis of data from rounds one and two occurred between October and December 2019. Data processing and analysis of round three data and synthesis of findings from all rounds, occurred after January 17, through March 2020. Toward the end of this period, in March 2020, events related to the COVID 19 pandemic unfolded in NB, making remote/distance technology operations necessary at NANB and

at UNB. During this period, I prepared the summary report for stakeholders, with consultation from my supervisory committee. The summary report was sent to all participants on July 7, 2020.

Data Processing and Analysis-Delphi Round One.

The first 50-minute Deliberative Dialogue (DD) of Delphi round one (round robin dialogue) was digitally recorded on my laptop and transcribed verbatim in Microsoft Word. The written transcript was compared to the recording several times to ensure accuracy of detail. I imported the final written transcript into the qualitative data processing software NVIVO 12 PLUS (computer assisted qualitative data analysis software) for organization and assistance with sorting and coding of recurrent comments and identification of themes.

To sort through the volume of data within the transcript, I considered participant phrases or groups of phrases as units of meaning (Gray et al., 2017, p. 270; Pavlish & Pharris, 2012, p. 259). I formed tentative groupings of similar comments and through repeated review, compared the comments in these groupings. As I saw recurring and related patterns, I combined some groupings into more comprehensive units of meaning, I used digital "cutting and pasting" of participant words/phrases to sort their comments into these groupings. As these units of meaning emerged, I used a combination of participants' words and my own wording to name emerging themes. These emergent categories are expressed in NVIVO as "Nodes." This process of sorting and grouping participants' comments provided a way to describe some shared realities of CNS practice as presented by each participant (Gray, Grove & Sutherland, 2017, p. 271)

I carefully reviewed the nodes to identify recurring themes, expressed by more than one or two participants. I also considered less frequently expressed comments that conveyed important alternative perspective, in some instances widening a theme or category based on the inclusion of these views. I identified "themes" or similar units of meaning, while at the same time recognizing nuanced differences of responses leading to the emergence of new themes. By noticing and honouring similarities and differences I began to describe an overall pattern of meaning that represented the "whole picture" of the phenomenon of CNS practice in NB (Pavlish & Pharris, 2012, p. 264).

Once the research team reviewed tentative data analysis, we agreed on an initial approach to coding the data (NVIVO expanded list of Nodes). I repeatedly examined the list of Nodes searching for commonalities within the narratives that might indicate greater themes emerging from the participants' words. Saturation of themes occurred when no new themes emerged. From this iterative examination of the recorded transcript I established an initial list of themes. I then performed a "member check" with my Community Advisor, K Sheppard, who was present during group meetings. Through an in-person discussion after sharing "screen capture" segments of my coding progress within NVIVO, this member check confirmed the accuracy, authenticity, and confirmability of my interpretation of three major emerging themes. The process also highlighted participants' frequent description of a unique barrier to practice described as: *CNS role determined by employer*. Following this member check, I reviewed the transcript once again considering this unique barrier, recognizing units of meaning within the participants' narratives supporting this unique barrier to CNS practice in NB. This

uniquely identified barrier to practice was a significant finding as it had not been specifically discussed in nursing literature.

During this phase of data analysis, I wrote analytical memos describing my decision-making processes (methodological memos) and theoretical insights as well as personal insights (personal memos) as suggested by Pavlish and Pharris (2012, p. 266). This process created an audit trail (Grave et al., 2017 p. 274), documenting the steps I took in analyzing the data. All memos were entered in NVIVO 12 Plus and digitally linked to all "Nodes" (software function of NVIVO 12 Plus). During round one and all rounds of data analysis, I regularly reviewed emergent findings with my research team. From a CBCAR and DD standpoint, the data analysis team should be composed of academic researchers and community members (content and context experts) (Pavlish & Pharris, 2012, p. 230, Plamondon et al., 2015). For this project academic researchers consisted of myself, my academic supervisor and one academic committee member. The community member of the research team was my practice partner advisor, representing NANB.

Data Processing and Analysis-Delphi Round Two.

Delphi round two qualitative data (written comments regarding the content of the readings from questions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, & 35) were organized in NVIVO 12 PLUS and numbered to match the sequence of questions found in the questionnaire. All qualitative comments were iteratively reviewed for new units of meanings or relationship to the themes identified in Delphi round one. Written comments were analyzed to determine how they addressed the research questions of this project.

All quantitative data (Likert-style numerical ratings for desirability/feasibility from questions 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, & 36) were entered into IBM SPSS 26 (statistical computer software) for analysis. One file page contained case numbers 1-6 (representing participants) and 36 variables (representing questionnaire items for both desirability and feasibility). All data from this file were analyzed for descriptive measures of central tendency (median scores). A later analysis also considered mean and mode scores for each desirability and feasibility item.

For consistency and ease of data analysis, I assigned numerical values to all options of questionnaire responses echoing the rating scale used in the questionnaire as follows: 4= "Very desirable" or "Very feasible", 3= "Desirable" or "Feasible", 2= "Undesirable" or "Unfeasible", and 1= "Very undesirable" or "Very unfeasible"

A second page was created in SPSS 26 for further aggregate analysis of group response. This page included case numbers 1-18 (survey items and their mean scores of desirability + feasibility as rated by the group). Aggregate analysis was completed for 5 variables calculated: *median desirability score for content of each question, median feasibility score for content of each question, group ranking of question contents by desirability, group ranking of question contents by feasibility, group ranking of question contents by combined scores of desirability and feasibility.* This second page contributed to an analysis of participant group ranking of items from the questionnaire.

Median scores for desirability and feasibility were chosen as a measure of central tendency for statistical analysis of this ordinal data to describe group responses to each questionnaire item. The goal was to present a measure of central tendency for the

collective responses to the items, while respecting that ordinal ranking values are not interval-level measurement (Polit, 1996, p. 43).

Another analysis compared mean, median and mode values of central tendency for each Likert item, demonstrating virtually no difference in these values. Other analysis using mean values for desirability and feasibility was used to rank the items in the questionnaire. This analysis provided a rank ordering of which items in the questionnaire yielded strongest to weakest agreement in terms of desirability and feasibility for renewed CNS advocacy. Finally, the non-parametric Spearman Rho was calculated to determine whether a correlation existed between ranking an item as desirable and feasible in the questionnaire. This focus is consistent with Adler & Ziglio (1996, p. 70), who posit that a deeper understanding of the group process can be achieved with the addition of non-parametric correlation analysis among elements contained in the questionnaire.

Within round two, the last section of the questionnaire asked participants about their views on specific knowledge to action commitments for renewed CNS advocacy. This section of the questionnaire provided another dimension of findings. Data from these items were analyzed to determine the viability of renewed CNS advocacy based on participants rankings.

Data Processing and Analysis-Round Three.

Qualitative data resulting from Delphi round three were processed and analyzed similarly to round one qualitative data. NVIVO 26 Plus computer software was used to assist in the organizing, sorting, and the identifying units of meaning as expressed by

participants. Units of meaning were identified as “Nodes” and labelled using a combination of participants actual words and my own.

During the final (third) Delphi round of engagement with participants, some data analysis occurred simultaneously with data collection. During the final meeting of stakeholders, the group discussed and prioritized the findings from the first meeting and the online questionnaire. Their analysis was used to achieve saturation and to organize the final report to stakeholders.

All themes emerging from this final round of dialogue were compared with qualitative data from rounds one and two for consistency of theme identification and interpretation. Following that final appraisal of data, the findings were shared with participants in June 2020, in a summary report to stakeholders.

Discussion of Data Analysis

As essential to the CBCAR process, qualitative data (narrative comments from all three rounds) described the human lived experience for the stakeholder’s perspectives, while quantitative data (Round Two Likert-style ratings) helped to probe and explore knowledge gaps and expanded the picture emerging from the participants’ narrative regarding the CNS role in NB (Pavlish & Pharris, 2012, p. 224). Within a CBCAR approach, principles that addressed data analysis included:

- Data analysis was determined by the research design, theoretical frameworks, emerging questions, and gaps in understanding patterns of the whole,
- Researchers were knowledgeable about a variety of data analysis techniques to decide which technique best answers research questions posed,

- Researchers recognized how weaknesses in data influenced any conclusions being drawn (Pavlish & Pharris, 2012, p. 224).

Data analysis was focused on staying true to the participants' words, researchers' observations, and documented texts. Data interpretation and synthesis included comparison of findings, the creation of common themes and categories, leading to realization of meaning, which is the goal of qualitative research (Gray et al., 2017, p. 449).

Many aspects of CBCAR data processing and analysis are congruent with the DD process and were applied to this study. Both CBCAR and DD processes are iterative, intentional yet emergent, and co-constructed (Pavlish & Pharris, 2012, p. 228-229; Plamondon et al., 2015). I involved the "expert community panel member" (through my community partner advisor) in all phases of this report, by iteratively including her interpretation of data collected as an additional source of primary data (Plamondon et al., 2015). The group process of interpretation of data (collected in each meeting and the online questionnaire), was incorporated into the project findings as it contributed to the critical consideration of context of CNS practice in NB (Plamondon et al., 2015, p. 1531).

Finally, both CBCAR and DD highlight the efficiency and transparency provided from the construction and application of an analytical pathway for decision making and coding qualitative data. Pavlish and Pharris (2012) describe the analytical pathway as an intentional strategic plan for analyzing data with two components,one related to the specific chosen research questions and the second as an emergent component producing analytic questions that arise during data analysis (p. 246). Plamondon et al. (2015)

describe two dimensions of the pathway as “analytic” (categorizing and connecting) and “Interpretive” (finding meaning by viewing data with “empathetic” and “suspicious” lenses) (p. 1531-1533). For this project, an analytic pathway incorporating features of CBCAR and DD was co-constructed by myself and the research team and this functioned as providing an audit trail of how the research evolved (see Appendix F for diagram of analytical pathway).

Chapter Four: Findings

This chapter presents findings from the CBCAR Deliberative Dialogue with stakeholders, where they considered issues associated with renewed advocacy to fully integrate the CNS role in New Brunswick. Findings are presented based on the three rounds of modified Delphi engagement with stakeholders and reflect the data analysis described in Chapter 3.

Round One Modified Delphi: Introductory Stakeholder Dialogue

The first round of Delphi engagement included “round robin” conversation among five stakeholders, including introductions and digitally recorded dialogue that was guided by four questions. These questions were designed to explore the current context of CNS integration and to consider participants’ knowledge and experience with integrating the CNS role in NB. The four questions posed were:

- How have you been involved in development or implementation of the CNS role in NB (Canada)?
- What has been your experience or knowledge related to Advanced Practice Nursing in NB (Canada)?

- What is your knowledge or experience of how the CNS role can contribute to Health Care Reform in NB (Canada)?
- What is your knowledge or experience with advocacy for the integration of the CNS role in NB (Canada)?

Computer assisted analysis of the digitally recorded dialogue used NVIVO Plus. The analysis of this digitally recorded dialogue yielded four themes: 1. *Several Opportunities for CNSs to contribute to HC reform in NB,* 2. *Calls for renewed professional advocacy and educational support,* 3. *Common barriers identified in integrating CNS practice in NB*, with a unique barrier (theme 4) described as *"Employer defining CNS role".* These themes are described in more detail here.

Theme One: Several Opportunities for CNSs to Contribute to HC Reform in NB.

This theme provides an answer to the first research question posed by this project: "*What are participants' views of CNS contributions to health care reform?"* Within this discussion of CNS opportunities to contribute to health care reform, participants identified three major subthemes: "*Significance of the CNS Role," "Nursing Crisis as Opportunity," and "Moving Forward."*

Significance of the CNS role. The participant group collectively described the CNS role as uniquely suited to system-level leadership in the context of health care reform. They highlighted CNS-specific advanced practice clinical competencies and emphasized system-level leadership as being consistent with system level reform. The participant group described the CNS role by referring to role components, emphasizing

advanced practice clinical expertise, advanced education, and systems-level approaches to problem solving that achieve positive clinical outcomes and organizational goals in health care.

In compiling participants' views, several crucial CNS contributions were explicated that are relevant to health care system reform. These included:

- CNS skills support evidence informed practice (*evidence informed practice lens*)
- Improved patient safety addressed through clinical decisions that are informed by evidence
- Able to advise decision makers on best practice policy to improve outcomes
- In depth knowledge, skills, expertise, and competency= pillars of CNS practice
- Prepared at a graduate level to bring leadership to many ways of practicing
- Systems level leadership perspective means working effectively to engage others across sectors, in the context of evidence and/or best practice
- System level leadership from a clinical perspective includes continuous quality assurance, working with a specific client and others to achieve clinical goals

One participant described CNS systems-level contributions by emphasizing the intersection between clinical expertise with individual patients and system level clinical leadership.

> Having the CNS (contribution) from a systems leadership perspective, from a clinical perspective, and from a continuous quality assurance perspective, we can make a big difference. This is because we just wouldn't focus on one thing. We are able to (engage with others) and then be back to work with that client, to be able to get him or her to achieve this goal.

Collectively the participant group consistently emphasized the CNS role as having a comprehensive approach to health care services based on evidence. One participant indicated.

> I think something the CNS can contribute to healthcare reform is that "evidence informed practice" lens. This helps to make good changes that are going to result in safe patient care and safety outcomes. CNSs have that expertise and lens to be able to find, retrieve, and synthesize evidence to inform (clinical) policies and decision-making, or even decision-makers within their organizations around what should be best practice.

Another participant described how the CNS helps clients reach health goals through inter-professional collaboration:

> One of the strengths the CNS role brings is that systems level perspective, the ability to work across sectors, pull sectors together, get different perspectives and do that within the context of evidence or, in the absence of actual evidence, - what would be best practice.

These comments and participants' collective points identify significant contributions CNSs can make to health care reform, reflecting the defined clinical competencies of their role.

Nursing Crises as Opportunities. Another subtheme in these findings spoke about how CNSs are presently occupying a uniquely significant position in health care systems, one that provides CNSs with a significant opportunity to contribute to health care reform. The theme of crisis and how that crisis creates opportunity best describes the optimism of the participant group. Stakeholders describe an opportunity for CNSs to contribute to health care reform that is tempered by their descriptions of challenging employment and workplace realities. The group identified opportunities to contribute to health care reform by examining the PNB 2017 Family Plan. They also view current

employment challenges for CNSs as tied to important opportunities for CNS leadership.

One participant gave a specific example:

> When you think about (how the CNS) can contribute to health care reform in New Brunswick, it's everywhere, everywhere we look in the province, we look at that specialty of gerontology. It's going to be one of the most important specialties in this province, it truly is.

This same participant pointed out the CNS role potential within of long-term care:

> Long-term care (LTC) is a huge place for CNS practice to work **and** (it matters) that they (LTC) are under social development - not under health. We're the only province like that.

Another participant described the potential for CNS leadership within a perceived nursing crisis by focusing on the employment context:

> Our work environment… is like the beginning of a nursing crisis… where the CNS role could have great potential…if recognized as leadership"(…) there is a great need for CNSs to speak on behalf of nursing … as nursing leadership positions have been eliminated.

Moving Forward. A final subtheme related to how CNSs would contribute to health care reform was the strong and real desire expressed by the group to "move ahead." As each participant recalled their individual experiences with CNS role integration in NB, they repeatedly expressed the desire for <u>action</u> to bring about full integration of the CNS role in NB/Canada. One participant stated.

> If we truly say that here in Canada we have two groups of nurses that are advanced practice nurses, where one group are the NPs and one group are the CNSs, then we have to figure out how do we really make this work.

Another participant described "moving ahead" as advancing the CNS role in the context of fiscal constraints.

> I think we have ideas to advance nursing practice and we have strategies for how to do this but because there is such an emphasis right now on being fiscally responsible, I find that even the great ideas and the things we're trying to implement (are stalled) because of that fiscal responsibility.

Still another participant described “moving ahead” as it relates to a perceived lack of intersection between consistent employment opportunities and CNS certification through education.

> What are we doing so that we can pass on and promote this role for people? There are many students who are interested in the (CNS) role. But you know the structure (for formal credentialing) isn’t there right? And so (for example) when we run an established process for the NP tract and the NP program … (it works). But we don’t have that for the CNSs. So, what is it really that is preventing us from looking at that and moving that forward?

This participant viewed the lack of CNS formal clinical credentialing (e.g. through CNA certification) as contributing to lack of employment opportunities, consequently negatively affecting the number of RNs seeking master’s preparation for the CNS role.

Finally, one participant described “moving on” as changing how we approach CNS advocacy to specifically include professional action.

> I think we need a sort of **a reawakening** (if that is a word). I think what we have been doing has been in some ways ineffective because we have not made the strides we need to. And I think we have to probably start thinking a different way, (with) different ways of messaging so we can really enable leaders, managers, decision-makers, even our regulatory body to really be involved in the conversation and dialogue so that we can have some **concrete action**.

Another participant considered political action (among other strategies) as one opportunity to address CNS role clarity.

> **so, role clarity**… what clarifies that role (CNS)? There’s numerous factors (opportunities), right? There’s legislation ... there’s regulation, there’s education and then there’s… political (action) level…and the employer… and then the public as a whole.

Theme Two: Renewed Professional Advocacy and Educational Support.

The next major theme that emerged from Delphi round one dialogue responds to the second project research question "*How do participants view the need for renewed advocacy and educational support to strengthen the CNS role in NB?"* Participants consistently described professional advocacy and educational support as interwoven and needing to occur in tandem. Subthemes surfaced that contribute to a comprehensive discussion of this theme. These are: "*Need for Official Role Recognition," "Need for Professional Action/Advocacy,"* and *"Need for Role Clarity."*

Renewed Professional Advocacy: Need for Role Recognition. Collectively, participants consistently described the need for local, provincial, and national advocacy to strengthen the role of the CNS through official role recognition. The group described official role recognition as requiring the inclusion of CNS specific wording in national and provincial regulatory documents, nursing standards, and possibly the Nurses Act.

> the word ("CNS") isn't in the (regulatory documents or) statements… there has to be room whereby we can give recognition to the clinical nurse specialists… we recognize the researchers; we recognize the educators….

Along with CNS specific wording, one participant described the effect of credentialing on role clarity based on her own education and practice as a CNS in the US.

> it (CNS role) was **very clear** (in the US) in my days when you were a CNS there was… no lack of clarity with regards to being a CNS and … I think that the difference … was that … we had the credentialing.

Another participant described the effect of the CNA 2014 Pan-Canadian Core Competencies for the CNS as providing a national initiative to define the CNS role.

> right now, you look at the NP role (it is) very clear what that role would look like and what you can expect from that person. Because we don't have that same kind

> of clarity there (about the CNS role) uhm from an academic point of view, it's not as clear and that's why the (CNA 2014) competencies for the CNS became so invaluable for us.

Need for Professional Action/Advocacy. The participant group described a loss of CNS role advocacy at the local level that has been tied to organizational restructuring and elimination of nursing leadership positions in NB. In addressing this, participants suggested that professional advocacy at the local and provincial levels is linked to political action as a form of advocacy to address "incongruencies between what we say and what really happens." One participant expressed that CNSs employing political strategies could better affect systems change.

> CNS (need) to be able to be **politically astute** because… (that is) truly how… we get (understand) the (political) climate to be able to navigate the system from that perspective.

This same participant suggested that it is time to take evidence from nursing research and studies that already exist and use that to support professional, if not political action.

> We have researchers and we have studies and those things. What we really need is some **concrete action;** (We) need managers, directors, and politicians, (including the department of health and wellness) to really understand the available research and nursing evidence. From a systems leadership perspective, from a clinical perspective, and from a continuous quality assurance perspective, having CNSs matters.

Need for Role Clarity. Participants described a need for advocacy through educational support, using CNS curriculum in tandem with professional advocacy to address role clarity. They believe that changes to CNS curriculum across Canada would contribute a form of renewed professional advocacy, helping to define the role both for CNSs themselves and potential employers.

> so, role clarity is (important) and what clarifies that role?... that (reality of) role clarity (matters) because if something is **clear** and its understood and it's shown how it is important, that is key.

Educational Support. Participants described how role advocacy through educational support could be achieved by emphasizing the importance of leadership, political engagement, and policy in educational programs. There was discussion among those in the group indicating the potential benefits of increasing emphasis on leadership and political content in the CNS curriculum. Most participants were unaware of recent changes in the MN curriculum at UNB to include this kind of learning related to leadership and health policy. The discussion of policy included the need for CNSs to acquire political savvy at the small 'p' level and the big? 'P' levels.

This same participant was unaware of recent changes to address these issues at UNB. She {One participant} drew parallels by describing her own earlier CNS educational experience in drafting health policy.

> in our curriculum… the CNS draft(ing) policy was a big piece in there… we really (need to) encourage …policy (work by CNSs)… into… the **political big policy 'P'.**

This discussion of systems-level leadership suggested that CNSs need to have skills at negotiating for the role at the local unit/organizational level as well as in the larger political arena of health policy and health human resource planning. Another participant commented on how their educational program had addressed the importance of this learning:

> some of the core areas of focus within our (master's) program (include) the system level leadership abilities that clinical nurse specialists or graduates (…) would have, to be able to inform things like policy and decision making. So, students (of that program) develop competency around leadership, policy and decision making.

Theme Three- Renewed Advocacy: Common Barriers Identified in Integrating CNS Practice in NB.

As participants described their individual lived experiences of CNS role integration in NB and Canada, a third theme emerged that represented common barriers to practice shared by the group. There were numerous references to various barriers to practice. Many appear to be interwoven-connected to each other, most occurring within the day-to-day work environment experienced by the CNS. Common barriers to practice described by the group included:

- Recurrent organizational restructuring/changes to workplace culture/fiscal constraints/non-nursing chain of command
- Lack of role clarity/lack of understanding of the role/lack of administrative support
- Decrease CNS positions/diminishment of CNS role/lowered strategic organizational positioning
- Competition with other health care professionals
- Increased workload/assignment of non-CNS duties
- Flexibility of role

Participants described barriers to practice related to recurrent organizational restructuring in the past several years by their employer. Organizational restructuring has affected their workplace culture, as demonstrated by a perceived increase focus on budget and fiscal constraint, while reducing the presence of nursing leadership in the "chain of command".

Lack of role clarity and understanding of the CNS role within the organization was described as resulting in less support from decision-makers, administration, fellow nurses, and other healthcare professionals. Lack of clarity also contributes to less recognition of the CNS's unique contributions to patient care. Participants believe that organizational restructuring and lack of role clarity/understanding has contributed to decreased CNS positions and diminishment of the CNS role**.** One participant described the effects of organizational restructuring as affecting CNS's power to make productive change in the organization. In comparing these organizational changes that have occurred over several years, this participant indicated:

> that (changes who nursing reports to) places you (the CNS) quite strategically (in a) different place in the organization and (this) changed how people saw you and how the role then was implemented.

Another barrier to practice that seems to have emerged from corporate restructuring is that nursing has now become only one component of a larger portfolio managed by administrative directors. Participants described having to compete for resources and support, in some instances from a director who is not a nurse and does not share or understand nursing priorities. Another aspect of competition was described as employers focusing on budget while hiring less qualified (often less expensive) health care professionals, expecting to meet health care goals and objectives. This creates a situation where CNSs have to defend their role.

> So that diversification … probably makes the CNS role that much more important to really be able to speak on behalf of nursing. But it also means that you're in amongst… other professions and needing to really… get that voice out there and that's not always easy.

Two participants described a work environment where there is very little time allotted to support activities from all of the CNS domains of competency. Participants indicate that the CNS often is assigned work previously performed by nurse educators. One participant described how difficult it is to explain to supervisors that while education is indeed part of CNS competencies, it is not their only role component. This is problematic when education now takes up most of her work time. In addition, participants described other assigned tasks that are not related to CNS practice but meet the needs of administration.

Finally, one participant described the flexibility of the CNS role as a potential barrier to practice. She described the role as historically needing to demonstrate flexibility to remain viable within a constantly changing context of health care systems. She suggested however that this flexibility has contributed to lack of clarity, understanding and invisibility of the role. For this and other participants, the view is that individual CNS roles are responding to changes from individual employers' interests and objectives, and as a result, employers ultimately are contributing to role ambiguity.

> looking at the evolution of the role it's been very heavily influenced by the evolution of health care (employer, management) and probably more so than any other nursing position because the nurse at the bedside was always the nurse at the bedside like people have always been clear with that.

Another dimension of employers contributing to role ambiguity was addressed by participants who described employers as shifting emphasis away from integrating all role components. By "piecing out elements" of the CNS role, employers expect CNSs to remain flexible and open to redefining the role, even as they focus only on specific role components. The employers are perceived as continuing over time to de-emphasize some

specific CNS competencies (sometimes extinguishing those dimensions of the role) to meet organizational needs. One participant discussed this by describing how her employer gave rationale for re-defining a heavy emphasis for nurse-educator competencies/responsibilities, "educator' is part of your role… we need that piece now so for now, that's what I need you to be doing."

Theme Four-Unique Barrier Identified: "Employer Defining CNS role."

This theme emerged as participants recounted their personal knowledge and experience with integration of CNS practice in NB. Three participants described numerous occasions where the employer defined, affected, or changed their role as a CNS. In reviewing all the interview data, it became clear how much the CNS role has been and continues to be defined by the employer in NB. In focusing on the employer, participants suggest that employers have played a role in creating more than one barrier to the sustainable integration of the CNS role in NB. This specific stand-alone structural barrier to CNS integration is not described in nursing literature, therefore, deserves consideration.

Participants described how the CNS role has been and continues to be affected/limited by organizational restructuring, elimination of nursing leadership and CNS positions, and the assignment of non-CNS responsibilities. They described how their abilities to meet all core CNS competencies are affected by employer priorities, communicated through budgetary constraints. Some CNSs have very little clinical time allotted to them while others are assigned an imbalance of education responsibilities. In speaking about the core competency of CNSs providing system-level leadership, one participant described the effects of increased workload as interfering with effective

collaboration among CNSs, and ultimately with implementation of the role at system-levels in NB. This occurred through workloads that prohibited participation among CNS colleagues in collective professional advocacy and leadership at the local level.

> …at the same time (as the CNS advisory group was being formed), we were seeing a decrease in the number of CNS positions in the province and that impacted (…) the work of the (advisory) group but also the membership of the group. I think part of it was (that) workloads too were increasing so people were having a challenge to actually be able to actively participate in the (CNS) meetings.

Another participant described the reluctance of their employer (at the time) to support the activity of a newly formed CNS interest group:

> what we were hearing was that in (the) everyday work place (environment), that (kind of consultation/meeting) wasn't necessarily being valued as part of the professional role of the CNS and as such (…) people had to do it outside of their work time or they had to be creative in how they were doing it within their work time.

Another participant described the struggle to engage with a CNS interest group of peers and colleagues. That activity was proposed to perform aspects of CNS role advocacy/promotion at a system level in NB:

> It's hard to go out to have a meeting when we have so many other demands that are going on. I guess (that) is the easiest way to describe that and so now we don't meet at all.

A different participant described how her current CNS role has evolved, where most of her work time involves educator duties, in direct patient teaching classes (pre-surgical preparation for joint replacement surgery).

> So, it's funny … I'm looking at the five core competencies and yes, 'advancement of nursing practice' includes education, and (yes) 'clinical care' includes education. But I'd say a lot of my role now is (patient) education because it used to be somebody else that was doing it.

Still another participant described executive leadership that focuses on budgetary constraints as affecting the employer's interpretation of the CNS role.

> budgetary constraints or restraints looking at how to save a few dollars then (affects) the emphasis and the shift is not on health outcomes, it's not on the clinical nurse specialist being able to look at it from a holistic perspective.

Participants suggest that how the employer defines the role appears not to be based on the core competencies as these are defined by the nursing profession. Rather, the role is based on the ever-changing needs of the employer. One participant clearly and comparatively articulated how the CNS role is constantly being changed:

> so, we've gone through different… organizational structures…over the… years that I've been in the organization…and that's **always** influenced what's happened with 'the CNS role,' whereas the 'floor nurse' is the 'floor nurse' and continues to be 'the floor nurse'.

Summary of Findings Modified Delphi Round One

In summary, under the theme of opportunities for CNS contributions to health care reform, the participant group described the significance of CNS role components as supporting health care reform through evidence informed practice and system-level leadership to address clinical and policy level goals. In terms of addressing the need for advocacy to support full integration of the CNS role, participants described nursing crises (specific to the employment environment) while also recognizing that crises are potentially also CNS opportunities. Participants identified potential opportunities for CNS contributions in gerontology, long-term care, and health policy development as opportunities in health care reform. These potential areas for CNS role development were identified by participants who do not possess clinical expertise in these areas. They were identified in discussion of opportunities for CNS integration in response to calls for NB

health care reform in the NB Family Plan. Participants understand that CNS role development and integration are needed in NB for CNSs to make these contributions to health care reform. The group also described how the CNS workforce is weakened by a systemic pattern of reorganization and eliminating nursing leadership positions. They recognize however that this is also a potential opportunity for CNSs to advocate for how nursing can better contribute to health outcomes in NB.

In addressing the challenges of system reform and sustainable integration of the CNS role, participants described "moving forward" as a need for a "re-awakening" in Canada and NB regarding the CNS role. The group challenged CNSs to start thinking differently, messaging differently by involving leaders, managers, the regulatory body, and other allies to see the value of CNS in HC reform and to take concrete action to strengthen CNS integration.

Regarding renewed local, provincial, and national level advocacy and educational support the group expressed the need for official role recognition including national credentialing (i.e. certification), CNS specific wording added to regulatory documents (e.g. Standards of Practice), and political action using nursing research to engage political advocacy. Participants also suggested that the educational program's CNS curriculum needs to include role definition/clarity, focus on leadership, and address policy/politics both "p" and "P."

The participant group described how organizational restructuring has resulted in barriers to CNS practice. These include elements such as changes to workplace culture, fiscal constraints, non-nursing "chain of command," lack of role clarity, lack of administrative support, attrition in CNS positions, diminishment of CNs role, lowered

strategic organizational positioning, competition with other professionals, increased workload, and assignment of non-CNS duties.

Participants' described the unique barrier to practice as "Employer defining the CNS role." This included lack of employer support to meet all competencies (e.g. not supporting the competency of "promoting nursing practice" through participation in CNS interest group) while continually changing the role to meet organizational needs.

Findings from Modified Delphi Round Two: Online Questionnaire

Six participants completed an 18 item (36 questions) online survey providing both qualitative and quantitative data. The survey items were organized into three sections, addressing the two major research questions of this project and knowledge-to-action commitments regarding CNS advocacy in NB. While most of the six participants answered all questions, one or two participants omitted responses to some questions. All quantitative findings will be presented in aggregate form using median scores for Likert items (see Appendix E for details of questionnaire contents).

Research Question One: CNSs and Health Care Reform/Systems Change.

To gain participants' opinions regarding CNS integration and health care reform/systems level change, participants responded to pre-selected readings with qualitative comments and Likert-style ratings for desirability and feasibility. The selected readings related to research question one included:

- PNB (2017) *New Brunswick Family Plan* (PNB Reform for Primary Health Care
- Roussel (2016) *Taking the pulse on CNS integration* (systems-level APN change)

- CNA (2014) *Pan-Canadian Core Competencies for the Clinical Nurse Specialist*
- CNA (2016) *Clinical Nurse Specialist Position Statement*
- CNA (2019) *CNA Advanced Practice Nursing: A Pan Canadian Framework*

***Responses to Q 5-6 - PNB 2017 Family Plan*.** All six participants believed CNS integration can contribute positively to NB Health Care reform under the Family Plan. The desirability of this CNS contribution to health care reform was rated 4/4 (very desirable) and the feasibility of this was rated 3/4 (feasible). In considering how the role components of CNS practice are relevant to system reform in NB, four to five of six participants indicated the (2014) CNS role components are integral to NB health care reform under the Family Plan. Participants rated the desirability of integrating CNS role components in system reform with a median score of 4/4 (very desirable). Feasibility of integrating CNS components in system reform was also rated at 4/4 (very feasible).

Qualitative data regarding PNB 2017 Family Plan provided insights from individual participant's perspectives, also supporting the numerical scores for desirability and feasibility. Participants' written comments specific to the PNB 2017 *Family Plan* support health care reform within the plan, highlighting the potential for CNS contributions by improving access to primary health care and acute care, promoting wellness, supporting those with mental illness health challenges, fostering healthy aging and support for seniors. One participant commented.

> CNSs provide in-depth knowledge, skills and expertise that impact positive health outcomes for clients and families. The seven pillars of the New Brunswick Family Plan are congruent with CNSs areas of practice. … there are several elements related to reducing poverty, (and) the CNSs in their role advocate and

> work collaboratively with others directly and indirectly to address poverty and inequity as a negative health outcome.

Another participant expressed support for how CNS role contributions support the 2017 Family Plan.

> Yes - especially the first 4 goals (Pillars), From acute care to community care, CNSs can and should play an integral role as clinician and/or coordinator/educator and/or researcher/administrator of programming.

The first four Pillars proposed in the Family Plan are Improving access to primary and acute care, Promoting wellness, Supporting those with mental health challenges, and Fostering healthy aging. The remaining Pillars of the 2017 Family Plan are Support for seniors, Advancing women's equality, Reducing poverty, and Providing support for persons living with a disability. Another participant saw the potential for CNS contributions to the Family Plan as within the CNS scope of practice, supported by 2014 competencies.

> Yes, if those in CNS roles are able to practice according to scope and the competencies outlined in the 2014 Pan Canadian Core Competencies document, they could contribute in significant ways.

Q 13-14 - CNS Role Components. In response to questions discussing health care reform and the relevance of CNS role components (Roussel, 2016) participants expressed agreement that the CNS role can contribute to HC reform as CNSs emphasize health promotion and disease prevention.

> ABSOLUTELY! I see tremendous opportunity for CNSs to contribute to reforming the health care system to better align with the principles of Primary Health Care. With increased emphasis on health promotion and prevention, for example, such reform would result in better use of health care resources. Because of their focus on holistic care, CNSs could also meaningfully contribute to interdisciplinary teams, which is a vital part of reform.

Some qualifying statements included concerns about current fiscal constraints and lack of understanding of the CNS role by decision-makers.

> I agree that these competencies are essential when reforming the PHC system in NB. In this fiscally conscious environment, decision makers are looking at who can do this work (other than CNSs) in order to save money. Many times, this work is now reassigned to front-line managers, project leads, etc., in an effort to be more cost-conscious. This article identifies those barriers (to reform) but we still have a lot of work to do in articulating that CNSs are the most cost-effective for healthcare improvement.

Participants viewed the 2014 CNS role components and specifically the competency of system-level leadership as necessary for system-level change and relevant to health policy in NB, They expressed this with Desirability, and Feasibility scores of 4 (very desirable, very feasible) on a scale of 1-4. They also indicated that the CNS core competencies would support CNSs making contributions to human resource planning but argued that potential CNS contributions are dependent on decision-makers' awareness of all components of the CNS role.

Q 17-18 - 2019 APN Framework. Participants next expressed views about the 2019 CNA APN Framework and its relevance for NB Health Care Reform. An important qualifying comment is relevant to participants' responses about the 2019 Framework of APN Core Competencies. Participants read this document only months after it was released by CNA, and some were unaware of its existence until this study. Five participants rated the desirability and feasibility for using the APN Framework to address whole systems change to strengthen CNS integration as 3/4 (desirable). However, the feasibility rating for using the 2019 APN Framework to address whole systems change to strengthen CNS integration in NB was ranked as 2 (unfeasible) on a scale of 1-4.

Participant comments support these numerical ratings. While participants express general desirability for using relevant elements of the APN framework to address CNS integration in whole systems change, they express clear concerns about the feasibility of

achieving this in NB. Participants' mixed comments provide important insight. They describe their perceptions of systems barriers to full integration of the CNS role in NB. One participant commented.

> Whole systems change is complicated because it is driven by the political environment. When the government in power changes with every election, the priorities for the whole system do not remain consistent. In addition, political decision makers do not understand the CNS role and therefore do not make it (or evaluate it as) a priority in the development of systems change.

Despite support for health care reform in NB, and recognizing the relevance of system-level leadership for reform, there were mixed reactions about the likelihood of system change in NB supporting CNS integration. As one participant comments:

> Whole systems change is required not only for the integration of CNSs but also for RNs and NPs. I believe that there is a strong need for advocacy surrounding the role of the CNS but also other nursing roles. I do not see evidence of whole system change or systems change planning in NB at present. These discussions have been happening for a very long time with very little action. How can we more effectively advocate?

Another participant perceived the CNS role as supportive to systems change, but also expressed some ambivalence about the importance of whole system change as a main priority for CNSs.

> I see it (whole system changes in the APN framework) aligning with the CNS System Leadership competency and assisting other health professionals and decision makers with an understanding of Advanced Practice Nursing. However, as a CNS, for me the main focus is on the CNS competencies.

Q 19-20 - 2019 APN Framework Evaluation Matrix. In response to reading the 2019 APN Framework's *Evaluation Matrix*, five participants responded with opinions about the desirability and feasibility of using the APN Framework to strengthen and **evaluate** CNS integration. Desirability rating for using APN framework was 3/4 (desirable) and feasibility rating for using APN Framework was 3/4 (feasible).

Although quantitative data indicated that the 2019 APN Framework would be both desirable and feasible to use in efforts to strengthen CNS integration, four of six participants responded with mixed qualitative comments about using the framework for evaluation of CNS integration. Participants' comments indicate slightly lower desirability/feasibility scores as they describe how the 2019 Framework might be effective for evaluating CNS role integration from a systems perspective. Participants also expressed slightly lower support for how the APN document would support whole systems change. One participant described the complexity of systems evaluation/change.

> This is a very broad question! In order to guide whole-systems change, we need to be in a place where all decision-makers understand APN competencies (and this framework). The challenge is, decision-makers are thinking about issues associated with patients & families; providers & teams; organizations and health-care systems and either do not recognize (that) APNs can assist with this change, or they are looking for human resources that are cost less than using an APN.

Another participant's comments indicate the 2019 APN Framework's Evaluation Matrix might best be used to evaluate the CNS role, but not necessarily relevant for systems change and its influence on the sustainable integration of the CNS role.

> I see that this could be a useful framework for evaluating the effectiveness of the CNS role. I think it would be useful for thinking about the evaluation component of systems change but perhaps not guiding an entire system change for the integration of CNS role.

This perspective was echoed by another participant.

> This is a component from a system perspective. For me, I will utilize the CNS competencies to the fullest and extrapolate relevant content of the APN Framework to strengthen CNS practice.

Research Question Two: Participants' Perspectives on Renewed CNS Advocacy.

To gain a sense of how participants view the need for renewed advocacy to integrate the CNS role in NB, they were asked to respond to the following selected readings:

- Charbachi et al. (2012) *Articulating the Role of the Clinical Nurse Specialist in New Brunswick.*
- CNA (2014) *Pan Canadian Framework of Core Competencies for the Clinical Nurse Specialist.*
- Roussel (2016) *Taking the Pulse on the Integration of the Clinical Nurse Specialist Role in Canada.*
- CNA (2016) *Position Statement on the Clinical Nurse Specialist.*
- CNA (2019) *APN: A Pan Canadian Framework*

Q 1-2 - CNA 2014 Core Competencies for CNS. All six participants viewed the CNA 2014 Core Competencies document for CNS practice as a relevant framework for CNS competencies. All six participants also rated both the desirability and feasibility of using this document as 4/4 (very desirable, very feasible). Participants' comments demonstrated their support for the 2014 competencies document while also expressing concern about how the publication of the 2019 APN Framework intersects with the older 2014 document.

> Yes, I believe that the (2014) competencies are relevant and acceptable. I did find it interesting that there are (6) APN competencies that apply to both CNSs and NPs – in the 2019 APN A Pan-Canadian Framework document. And there were 4 main competencies associated with the 2014 document you are referring to here. It would be nice to better understand intersections.

Another participant viewed the 2014 document as contributing to role clarification. However, she qualified this by stating that employers try to achieve CNS outcomes by hiring less qualified (likely less expensive) health care professionals. Participants' comments about the relevance of the 2014 CNS competency Framework were as follows:

> This (2014) framework is a great opportunity to clarify role definition, key elements, and the benefits that CNSs bring to the healthcare system. Given that

> our healthcare system is…an increasingly financially conscious environment, administrators are more focused on achieving the outcomes listed, without using 'designated' CNSs. The tone of this (2014) framework seems to be creating new opportunities for APN roles, but in the current environment, there is no budget and another role must be eliminated.
>
> Yes. (This) clearly articulates the role and the contribution of the CNS, as well as the education and experience of a CNS.
>
> Yes
>
> Agree
>
> Based on the assumptions the CNS competencies are essential competency statements to support CNSs in their clinical practice pertaining to client safety, continuous quality improvement and positive health outcomes…I see the core competencies as an (inclusive) framework.

Q 3-4 – Using 2014 Core Competencies to strengthen CNS Role. Participants expressed equally high desire for the 2014 CNS Framework to be used to strengthen the CNS role in NB (4/4 very desirable). The group scored the feasibility of the 2014 framework being used to strengthen the role in NB as 3.5/4 (between very feasible and feasible). Their comments appear to support the high desirability for using the 2014 CNS framework while explaining the slightly lower perception of feasibility.

> The competencies listed on pages 29-35 (of the 2014 framework) are an excellent resource for CNSs and their collaborating colleagues to understand the potential work they can provide. I rated the feasibility as 'unfeasible' because while CNSs can save the healthcare system money over time, we are in an environment where we cannot add roles, we are being told from administrators that we must find opportunities with current resources (Ex: what healthcare roles could be eliminated to fund more CNS positions?)
>
> Absolutely agree.
>
> Prior to the (release of) CNS Competencies, CNSs in practice had no formal document to guide their practice, support them in their role and share with decision makers, employers and other health professionals a written document about their role within the health care system. Thus, the content of this document is critical for CNSs in their clinical practice, as system leaders, in advancing nursing practice, continuous quality improvement and knowledge transfer of evidence.
>
> Yes, I agree that it could be used in this way. I think that there is a need to better articulate these (competencies) to leaders and allied health professionals who work with CNSs.

Yes

Q 7-8 – The CNA 2016 CNS Position Statement. Overall, participants viewed the 2016 CNS Position Statement as an effective tool (now and in the past) for advocacy to support CNS integration in NB. Participants' median score for desirability of using the statement was 3/4 (desirable) and their feasibility ranking was 4/4 (very feasible).

> This (Position) statement was a great opportunity for us to provide a consistent message about what a CNS does. In fact, I embedded the 4 competencies into my e-mail signature to bring awareness to what my role is, as my title is still misunderstood by my colleagues & patients. I do feel that because the CNS role is so broad, it is difficult to summarize in a short statement what it is that a CNS does.
>
> Yes, I agree. This position statement is clear and provides an overview of the Pan-Canadian Core Competencies.
>
> Yes, I believe that it is. I am not sure that I agree that the CNS is 'well established' in all places across the country as was stated in the background on p. 2. As cited in other papers, I agree that title protection and related approval and accreditation processes are important. In terms of advocacy, evidence of a stronger call to action might enhance the statement.
>
> Yes
>
> Agree

Participants responded to the second question regarding the use of the 2016 CNA CNS Position Statement to strengthen CNS presence in NB with median desirability score of 4/4 and feasibility score of 4/4. While median scores of very desirable and very feasible emerged for these questions, it is important to note that one participant rated the 2016 CNA CNS position statement as both undesirable and unfeasible. In this instance, a mean score would have been a more sensitive measure, had it been a valid measurement for ordinal data. Comments for both questions indicate the groups' support for the 2016 position statement while expressing how important it is to be able to define the role in the current context of continued fiscal constraints. Comments supporting use of the Position Statement included:

> Yes. The 2016 indicators could be used to create positions and outcome expectations of the role in areas of community health; gerontology; mental health, including addictions.
>
> Agree. Yet, political will and clear understanding of the value and contribution of CNSs in the health system and clients' positive health outcomes are key ingredients.
>
> The statement provides a consistent message to describe what a CNS does, however the healthcare environment right now is so fiscally restrained, we do not have the resources to add CNS roles. Sometimes I am asked to do things in my role that are outside the scope of the CNS position statement, simply because there are not enough resources in acute care for someone else to do it (Ex: nurse educator). Despite this statement, the lack of resources compromises the CNS presence in NB.
>
> Yes, it can be used as a basis for advocacy. It is broad in scope, but I do think it could be used as a basis for conversations.
>
> Yes, it could be used in collaboration with a NANB document to ensure the NB landscape is well represented. It is a bonus for us that NANB is referenced in the first paragraph.
>
> Agree.

Q11-12 – Charbachi et al Barriers to CNS Practice: Participants responded to the reading by Charbachi et al (2012), which addressed barriers to CNS role integration in NB. Participants assessed the analysis contained in the article as still relevant, especially in relation to barriers to practice. They also suggest a need to go beyond describing generalizations about barriers, to take action to clarify the role, and to engage the NB government, employers, NANB and educational programs to advocate for specific CNS positions with clear employment expectations. Collectively the participant group rated desirability and feasibility for using the Charbachi article in terms of inviting professional advocacy as 3 (desirable and feasible). Comments included:

> A strength of this article as a basis for advocacy is the focus on factors that contribute to success but that also pose barriers. Persistently the issue of lack of clarity comes up. I think clarity closely links to title protection & this is an important area for advocacy. It is interesting that nurse managers themselves were identified as lacking clarity. Speaks to the need for intra-professional and interprofessional education.

> Although this article was published 7 years ago the content remains relevant. However, given the current political and socio economic (context), this document in conjunction with the core competencies and the latest Advanced Practice Nursing Framework need to be interwoven in strengthening the role of the CNS.
>
> This article is still relevant to the contributions and challenges facing CNSs in NB today. However, unless we are able to articulate that the additional educational preparation & knowledge CNS have can save money and improve healthcare outcomes, administrators and nursing leaders will be looking for other professionals to do the work of CNSs. One argument in this article that still resonates for me is many of our nursing colleagues still do not understand our role & the value we bring.
>
> I did not get the impression that this discussion was about advocacy and leadership. Barriers to promoting the role are identified, examples of responsibilities not part of the CNS's role are given and visual representations of the 5 elements of the role are presented. The 3 Vs provide somewhat of a framework to advancing the profession in NB. If "invites" means to engage other professionals to advocate on the CNS's behalf, I'm not sure this discussion does so. Who are the MN students? NP, CNS?
>
> This document is broader with less attention for hands-on implementation, which is what I feel the GNB/NANB/UNB and UdeM are in need of. Why? For CNS role clarity and to advocate for specific positions with funding that have clearly defined employment expectations by the GNB for the activities and initiative to be performed by a CNS.

***Q 15-16- 2019 CNA APN Framework*.** Participants viewed the CNA (2019) Advanced Practice Nursing: A Pan Canadian Framework document as relevant to CNS role integration. There was agreement that twenty-six strategies identified in the framework could be relevant for renewed advocacy and successful integration and sustainability of CNS practice in NB. There were mixed views about the relevance of the Framework's evaluation matrix, and mixed views about the relevance and consequences of the document's focus on system level change. There were questions about how the 2019 APN Framework's "combined focus" on CNS and NP practice may confuse or obscure the specificity required for evaluation of CNS role components (2014). Participants rated the 2019 APN Framework's strategies for CNS implementation,

integration, and sustainability as very desirable (score of 4/4) and feasible (scores 3/4). Comments included:

> (The strategies) compliment CNS competencies – using a different lens – for example, strategies for success and sustainability.
>
> I agree.
>
> This is a great document. I think the primary group that has the ability to enable the development of APN roles is administrators within healthcare organizations (p. 38). If they understand the value that APN roles can provide above other professionals, there will be a greater demand for these roles. Attention needs to be paid to this group right now. Without their support, we will continue to face the challenges, but we have to acknowledge that they have huge financial pressures to reduce $$.
>
> I did find that in some ways (the 2019 Framework) might contribute to further confusion because of competencies being presented for all APNs (as well as unique competencies). I say this while appreciating the need to understand both as APN roles.

In the next section of the questionnaire, participants were asked their views about using some of the readings to engage renewed advocacy for the CNS role in NB. The next section discusses these findings, indicating participants' views about the desirability and feasibility of using information from the readings to engage action for renewed advocacy.

Q21-22 - 2014 Core Competency Framework for CNS Practice. Participants viewed the 2014 core competency framework as relevant and useful for renewed advocacy. They view the 2014 CNS role component and related competencies of *system level leadership* as necessary for system level change and relevant to health policy in NB (human resource planning to a lesser degree). Four of six participants rated using the 2014 competencies document as very desirable and feasible (scores 4/4, 3/4 respectively). Participants' qualitative comments expressed support for using both the 2014 CNS Core

Competencies document and the 2019 APN Framework while considering how the two documents might be used together to support the CNS role.

> I see an improvement in the competencies listed in the 2019 framework, compared to 2014. (I am wondering why we are talking about this 2014 document when the 2019 document is available?) As we use this document to articulate our work, I would like to see more stakeholder involvement from the decision-makers that choose to implement/eliminate positions for APN nurses. These people are the biggest stakeholders at the present time to growing the CNS role in NB.
>
> 2014 competencies can be used, depending on organizational culture and leadership. Needs to be strong desire.
>
> The Pan Canadian Core Competencies (2014) are currently used to advocate for the CNS role in New Brunswick.

Q23-24 – Core Competencies being used. Three to four of six participants commented on how the 2014 CNS Core Competencies document is currently being used to evaluate individual CNS practice in NB. Respondents ranked use of the 2014 Competencies for individual CNS evaluation as both desirable and feasible (3/4). Participants' qualitative comments support these numerical scores. One participant describes her current work reality where there is little time to meet all competencies of the CNS role. Comments included:

> The CNS role is evaluated in NB based on (2014) Pan Canadian Core Competencies.
>
> *Correct. I use the competencies to articulate the work I do to my manager on a monthly basis. My challenge is that I am also expected to perform duties outside of the competencies of the CNS role, leaving less time to complete CNS competencies* – the area that is most often neglected in my work is evaluation & research. Part of this challenge is that many nursing leaders do not appreciate or are aware of the core competencies, and they are trying to accomplish more with less human resources.

Q25-26 – CNS competencies and Health Policy. Four to five participants commented on using the (2014) CNS Role Components for the development of health policy and human resource planning. Their responses yielded a median desirability score

of 4/4 (very desirable) and a slightly lower feasibility score of 3.5/4 (between very feasible and feasible). Participants expressed support for using CNS Core competencies to contribute to health human resource planning. One participant suggested that while the clinical role component is key for her, CNSs' competencies can contribute to policy development. Comments about the CNS competencies being relevant for and contributing to health policy and human resource planning included:

> Absolutely, but again, the decision-makers are looking for people with less specialized education that can complete these objectives for less.
>
> Absolutely, if there is the political will and depending on the organization culture.
>
> Yes, I absolutely believe that they can.
>
> I agree that CNS's are in a position to contribute to the development of health policy; however, I am not as convinced with health human resource planning. The clinical component is key to this role and HHR planning is much broader.

Q27-28: CNS role and master's education. Five of six participants rated the need for master's education to fulfill the 2014 CNS competencies as very desirable and very feasible (scores for both-4/4). Overall, participants' comments support the CNS role components as requiring master's education. One participant expressed ambivalence regarding master's education as a requirement for CNS practice.

> I absolutely agree. My master's education prepared me for the work I do every day. However, because there is not clear regulation protecting this as 'CNS work', decision-makers try to find less-educated people to perform these duties. In a sense, I feel NPs have been somewhat protected from this as they have the legislative authority to order tests/prescribe. Decision-makers perceive that there are other professionals that can do the work of a CNS, despite not having the same level of education.
>
> Yes, I believe they fundamentally do. These competencies including expert clinical practice, system level leadership, advancing/advocating to support nursing practice, research and evaluation are competencies that are not achieved via BN preparation only. Particularly as it relates to research. An interesting question to consider however is how masters programs in Canada are preparing graduates to meet such competencies. Many have direct entry post BN; how is expert clinical practice achieved."

> Absolutely!!
>
> As I read the required readings, I asked myself if in some situations RNs without graduate studies are practicing at a CNS level without actually being in a CNS position. Obviously, masters level education will prepare the RN to meet the position requirements; however, there may be situations where experience allows the (baccalaureate prepared) RN to do so.

Participants' Knowledge to Action Commitments.

Survey questions 29-36 asked participants to consider several knowledge-to-action commitments regarding renewed CNS advocacy in NB. These questions considered some specific strategies going forward to strengthen and advocate for sustainable CNS Role integration in New Brunswick. Five of six participants rated all items for consideration as both very/desirable (4/4) and very/feasible (4/4).

Q 29-30 – Formation of Special Interest Group. Participants expressed support for formation of a special interest group within NANB to provide support for ***CNS role*** integration in NB. Participant scores for both desirability and feasibility were 4/4 (very desirable and very feasible). Three participants provided comments about the formation of a CNS special interest group:

> Absolutely, I think the challenge is finding volunteers, and the volume of CNSs currently employed in the province. CNSs are already busy volunteering on special interest groups related to their specialized practice, I fear many wouldn't have the time.
>
> I would agree with this; however, these special interest groups require a continued commitment and do not always result in the intended outcome. Is there another platform where CNSs can share and advance the profession? Across both RHAs?
>
> Yes, absolutely! I think that this should involve consultation and at times inclusion of other allied health professionals from within and outside nursing to enhance role clarity.

Q 31-32 -Title Protection. Participants rated the idea that the CNS role could benefit from some sort of **t**itle protection as desirable and feasible with median scores of 3/4 for both. However, some participants expressed mixed views about whether title

protection should require regulation. Some instead suggested that title protection should involve credentialing and/or certification linked to advanced/continuing education. Participants' views about title protection involving credentialing included these comments:

> I'm unsure. I don't know if title protection would become a barrier for employers, and the growth of CNSs in NB. Protecting elements in the competencies would be a grey area. The work that would go into (accommodating) certification may not be feasible with <100 CNSs in the province.
>
> YES!!!!! To me, this (issue) is a fundamental barrier to role clarity and integration.
>
> (Agree) Credentialing - certification for role clarity
>
> Title protection is usually related to regulation which is very different than certification. If there is a requirement for a masters (degree) or doctorate level education for this role, I would argue that educational requirement is the certification. I would not see the need to regulate the CNS differently than the RN.

Q33-34 NBNU Classification. Continuing the discussion of role protection, participants expressed support for appropriate designation within NBNU**.** They ranked desirability and feasibility as very high (scores for both were 4/4). Participants' qualitative comments about NBNU designation involving credentialing also support the quantitative "very desirable/very feasible" scores. Some conditions were mentioned about how credentialing might intersect with NBNU designation.

> The same applies here (questions concerning need for regulation). I believe this role is classified as a RNCC and therefore there is some recognition of the role. I don't have access to the classification list at the moment.
>
> Yes

One participant expressed agreement around role recognition in the form of credentialing or title protection but cautions against possible unintended negative affects this might

have on integrating the role. *"Agreed*, *but it* (title protection via credentialing) *comes as a double-edged sword."* Another participant simply indicated in one word how title protection might be achieved. *"Certification."*

Q35-36 – CNS Advisory Committee. To engage and address some of these barriers to CNS role integration, participants rated their support for renewed engagement of a CNS Advisory Committee (e.g. resembling one previously constituted) as very desirable and very feasible (scores of 4/4). (This question focused on creation of an advisory group, which is a different kind of collective than a formal interest group.) Participants' comments supported their numerical ratings for re-engagement of an Advisory Committee. They also expressed reservations based on time commitments. Four participants provided comments:

> Yes, I agree. To promote this role, there needs to be more communication and a better understanding of the role - within the nursing community first. Also, there needs to be communication between CNSs in both health authorities and with other employers such as the Extra-Mural Program as appropriate.
>
> Participating in this research project has definitely been refreshing (thank you Anna!) and I could see the same benefit coming from a CNS advisory committee. However, I'm worried I would not be able to commit additional time with my other professional volunteer obligations. I think one of the reasons I have not been as active with the CNS Association of Canada is that our skill sets are so different (Ex: public health, acute care; mental health, oncology, palliative, etc.).
>
> Yes.
>
> Yes.

Determining Group Agreement/ Consensus.

Quantitative analyses of desirability/feasibility scores were used to suggest a rough level of agreement among the majority of participants (rather than true consensus). Among this small group of six stakeholders, a small number of participants (1 or 2) did not respond to each question. This missing data was not treated or engaged differently as

a topic for consideration with participants. For four of the 36 questions, data were provided by only 66% of stakeholders. Those data were considered as they provided findings from the majority of participants. (The data were determined to reflect majority agreement when at least 60 percent of the sample responded in ranking an item desirable and feasible.)

Median scores for desirability and feasibility were calculated to provide findings on three areas of concern: 1.) participants views of potential CNS contributions to health care reform, 2.) participants' views of the perceived need for renewed CNS advocacy, and 3.) participants views of knowledge to action commitments for CNS advocacy in NB.

Using median scores, participants ranked 15/18 items (30/36 questions) on the Delphi Questionnaire as both desirable and feasible (greater than 3 on a scale of 1-4) as actions to address CNS role integration in NB. (This number includes those who ranked an item very desirable and very feasible).

Alternatively, comparing all three measures of central tendency on three items (median, mode, and mean), participants ranked 3/18 Likert-style rating questions as somewhat undesirable and/or unfeasible (< 3). This indicated mixed reactions among participants for consideration of these three strategies for renewed advocacy. Those three items were:

- Using the 2019 APN Competency Framework to promote system change & CNS integration (desirability median score = 3.0; mode = 2.0; mean = 2.8; and feasibility median score =2.0; mode=2.0; mean =2.4).
- Using the 2019 APN Evaluation Model/Matrix to address system change and strengthen CNS Integration (desirability median score = 3.0; mode = 3.0; mean =3.2: and feasibility median score = 3.0, mode = 2.0; mean score=2.8).

- Advocating for CNS Title Protection (desirability median score = 3.0; mode = 4.0; mean score = 2.8, and feasibility median score = 3.0; mode = 2.0; mean score = 3.0).

Although median scores for these items ranked them as desirable (3/4), participants ranked these items lowest (3 or less) in terms of both desirability and feasibility. This was viewed as indicating some level of undesirability, unfeasibility, or ambivalence within the participant group, for these specific items.

Findings: Round Three Modified Delphi Deliberative Dialogue

Modified Delphi round three took place on January 17, 2020 at NANB headquarters with six participants attending (one by distance). During the first half of the meeting, I presented qualitative and quantitative data collected from rounds one and two with some tentative recommendations based on participants' comments and rankings.

After the PowerPoint presentation, Deliberative Dialogue was initiated with an invitation for questions or comments about the findings and a request for their responses to tentative recommendations. The Dialogue that followed was digitally recorded with verbatim transcription completed in Word, then imported into NVIVO 12 Plus for qualitative data analysis.

Dialogue began with a question posed by one participant regarding CNS role classification within Horizon Health and New Brunswick Nurses Union. For clarification, in 2009 a reclassification of registered nurses occurred within NBNU and Horizon Health. The CNS role was classified as level "C" recognizing increased responsibilities of the advanced practice role. However, there was no consideration or inclusion at that time of graduate educational requirements for nurses classified at the C level. Consequently, other nursing roles were included in this same classification, not requiring

graduate education, such as Assistant Nurse Managers and Resource Nurses. One participant responded to the question.

> The general consensus (at that time) was (that) we were classified appropriately within that group (level C), but the issue… at the time was who else was also classified in that same classification (resource nurses…) And that was (focused in part) around… that academic piece. So, you know for advanced practice nurses the expectation is that you have to have a higher level of academic preparation. Yet in that classification there was a grouping that didn't even require a baccalaureate degree...

The question of appropriate CNS classification continued during round three with discussion of how employers continue to make hiring decisions based on cost, not considering the potential contributions to improved health care that advanced practice nursing provides.

> I worry about whether employers who fail to recognize (the CNS role) … who just want the work to get done, would hire a CNS or would they hire somebody with a different classification, that they can pay less. That they would gravitate toward that and not hire a CNS for what we can bring to the table vs someone else.

This perspective was supported by another participant who suggested that the higher pay scale attached to level "C" nurses might contribute to employers hiring based on lower salary and not advance practice nursing competencies.

> But I do concur with (previous participant) based on what we've actually been seeing in practice in the last decade plus and how decisions have been driven from a financial perspective, not necessarily driven based on who is the most appropriate candidate for the position that we have. And that does raise concerns because when you look at CNSs and our classification and the pay scale attached with it , it does leave opportunities for nurses in a lower classification to actually have more opportunity than the CNS role might have. So that's definitely been an issue.

In response to these comments, another participant emphasized how necessary it will be to have the employer as stakeholder at the "discussion table" in

order to move ahead with advocacy and sustainable integration of the CNS role.

> I strongly believe that moving forward…we have to have human resources at the table, we have to have the employers at the table. We know that there is role confusion, and they (decision-makers) are coming from a fiscal financial perspective.

This participant continued with the suggestion that there needs to be a plan formulated of how to integrate the CNS role, including the CNSs themselves collectively, along with participation by educational programs, and the nursing regulatory body.

> I think that key thing is having the UNB and the (nurses) association and the CNSs having some sort of conversation concretely mapping out the direction we are going to go.

At this point, participants' discussion broadened to consideration of CNS role recognition- is it a function of regulation or certification through different kinds of education? One participant commented.

> we have to think about …how (and) who is going to recognize us as CNSs and what does that mean and what is the clear definition of (the CNS role) and I think that has to be done at this level (stakeholder discussion) and at the academic level (and) at the regulatory body level.

This participant suggested there also needs to be some sort of national recognition of the CNS role as that will contribute to role definition and clarity.

> it has to be a national coming together of the regulatory bodies, so that (includes) the CNS practice in BC, in Ontario and in Nova Scotia…but another piece about that is from an academic perspective.

Another participant responded with comments recognizing that CNS's do not have nationally established entry-to-practice requirements.

> registered nurses, LPNs, Nurse Practitioners, there are entry level competencies, there are standards of practice, there are program approvals, very distinct… so

> you've got your education, you know clearly spelled out, you've got the educational expectations at the end of that program before you can … attempt to qualify to be that designated official practitioner, this is what must be met, A. B and C, and so on.

In response to this, another participant pointed out the importance of the CNA 2014 Competencies for CNS practice document, because it already defines the role. The participant emphasized that what is missing is some sort of title/scope of practice protection, which is needed because the competencies do not seem to provide the same role protection with employers.

> I think that is why the 2014 document was so important and why it still has relevance today… Its been defined (the CNS role). Our competencies are there in that 2014 document, they're very clear… We (CNSs) don't have a protected title…RN scope of practice is really clear, the NP scope of practice is really clear**, but the CNS role? That scope of practice is** (somehow viewed as comparable to) **the RN scope of practice. Really?** What gets added (but not recognized) is the additional competencies and once you get in the role (because it isn't protected) the employer gets to shape it.

Participants continued to discuss the CNA (2014) Pan-Canadian Core Competencies for the CNS and the recently published CNA (2019) Advanced Practice Nursing Pan-Canadian Framework, focusing on how these may support CNS role advocacy. Participants expressed continued support of the 2014 Core Competencies document for CNS role advocacy. One participant emphasized the significance of the 2014 document as it was developed particularly for CNSs recognizing the uniqueness of the CNS role.

> there is a difference between having the (2019) APN Framework and those (2014 CNS) Pan Canadian CNS Core competencies. Those were the first core competencies we had for clinical nurse specialists. It was specifically to help the CNS and to help other people understand the role of the CNSs.

While the group continued to support the 2014 Core Competencies document, they expressed ambivalence around the 2019 APN Framework document. Some participants expressed confusion about the intent of the new APN Framework.

> I also had some of that confusion with how what (was) in the 2014 document was subsumed in the 2019 document and or different and I thought this would be a good chance to talk about it and the fact others had mentioned it and I'm just wondering is that intended to replace or is it meant to be a broader Canadian framework?

Other participants proposed that the new APN Framework might de-emphasize the significance of the 2014 Competencies document and even reverse progress already made to define the CNS role.

> I am a little concerned to be honest with you, about the 2019 Framework for APN because what its done is taken us back before our 2014 document to what was in existence because that's (2014 document) what defines the CNS role.

Multiple participants expressed particular concern of how employers (of CNSs) might view the 2019 APN framework as confusing, with the potential to negatively affect marketing/advocacy for the role.

> I'm thinking of myself as an employer, I'm confused, with regards to the role of the CNS. Because I have clear competencies that are very clear and they are still our competencies with regards to that for the CNS, specifically for us. And then we have an APN Framework that has competencies that include all APNs, and for employers who don't even get it, some who don't get it, they would not spend time focusing on the core competencies.

> I think that they've got good stuff about the APNs in the 2019 Framework but if you look at it from the flip side, given the fact that we are still marketing ourselves , it just creates a little bit of a blur for employers, for the people who we really have to reach.

In another section of dialogue, the participant group focused discussion on employer responsibility regarding CNS role integration and **job creation**, emphasizing that this should be based on the 2014 CNS core competencies. This discussion focused on how the

employer continues to define the CNS role based on shifting organizational needs and not necessarily on CNS role components or competencies.

> once you get in the role, because it isn't protected, the employer gets to shape it.
>
> I think what was brought out around the role really is shaped by the employer and it's probably because of lack of a protected title, you know the NP (title) is protected and you have to meet certain criteria in order to function in that role.
>
> I think what we have to really figure out is about the conversation with employers right, that's a big piece, Because for all the years, all the engagement and stuff we were doing with regards to the body of information and those were the days when we had nurses in those leadership (positions). Now we have a variety of people in those management positions, (I don't know about your areas), who are not nurses, right so then it makes it difficult. So how do we invite them to the table to have a conversation?
>
> I think employers, human resources (management) employers, that's the big piece, and also for the union because they make decisions regarding the role and that's a challenge.

Participants continued discussion of employer responsibility for creating CNS positions, acknowledging that this does involve tandem work regarding CNS education. The group voiced support for post-secondary educational programs supporting CNSs. However, concerns were raised about offering specific clinical specialty areas of CNS educational programming when there are so few prospects for CNS employment in NB.

> so, its really hard for someone sitting in the seat of the education program perspective to excite registered nurses about becoming either a nurse practitioner or CNS. I don't want to use the word dismal. But it's even a bit more difficult for clinical nurse specialists as you've shared your roles and number of positions. I think (employment prospects) are not robust and probably not growing or not at the place they should be.

Another participant acknowledged the necessity of advocacy (from educational stakeholders) to increase recognition of APN roles in NB.

> one of the first things I identified in my role is (that) there is an interest to be having a conversation…,within the province, about the roles of advanced nursing

> practice. I think that there is significant potential for these roles to contribute (to health care reform) but I just don't see them (being) given the consideration.

Finally, the participant group discussed knowledge to action commitments, moving forward with renewed professional/political advocacy to ensure sustainable integration of CNS role in NB. This was described as linked national (CNA) and provincial (NANB/CNS) advocacy. One participant expressed the need to increase CNS "collectiveness" as a way toward increased advocacy.

> its not just New Brunswick, we just can't think about that from a New Brunswick perspective, we have to look at, it has to start at a (local level), but it has to be a national coming together of the regulatory bodies, so that the CNS practice in BC, in Ontario and in Nova Scotia, at least we'd have some sort of a recognition, **collectively.**

Discussion regarding activities for renewed CNS advocacy, at the local level, included questions of re-energizing the CNS Advisory Committee.

> the advisory committee, because it sounds as though (if I have heard correctly) that it was an effective mechanism for bringing together those in CNS positions. But it became very challenging to remain active because of the employment commitments people have but also because it was not recognized as part of the professional role. Is it possible to re-energize that group or…what might it take?

As well, it was suggested that there might be support (from the employer) for periodic activities for networking and CNS education.

> but I think the concept of a forum that happens maybe once or twice a year that brings CNSs together, that is about CNSs and brings forth some of the issues and others that maybe haven't been picked up on in terms of this project, maybe more doable more feasible and enable more employer support, I don't know, because maybe you can capture it under education funds.

Another participant expressed the need to extend discussion of CNS advocacy (from educational stakeholders) to the provincial level.

> For me one of the first things I identified in my role is there is an interest in having a conversation more broadly within the province about the roles of advanced nursing practice. I think that there is significant potential for these roles to contribute but I just don't see them (being) given the consideration.

The group continued to acknowledge the necessity to include all stakeholders in APN practice, in renewed dialogue to begin moving forward with renewed advocacy:

> we really have to figure out how do we recognize and how do we acknowledge and how do we talk about this CNS (role) as a second group of advance practice nurses.
>
> I strongly believe that part of moving forward is where we have to have human resources at the table, we have to have the employers at the table.
>
> And the other piece is, we have to figure out how we share that information not only with the employers and human resources department, but also with the union because once it is clear of who we are, what our role is, what designation we have, and how that fits within the system, then we can move forward.
>
> "I'm glad to hear that your final report will include recommendations such as this (gestures to slide on screen) because once its published then it can be shared with you know different key stakeholders.

Participants continued to emphasize the importance of the educator and regulatory bodies as stakeholders:

> there are recognized dedicated programs for the nurse practitioner, at the university level, right, there are requirements and things to be met. How come we cannot look at doing something similar for the CNSs and in moving forward.
>
> what we have to figure out is -we have to have some sort of recognition in our standards of practice that we come together (to share) with our regulatory body; that has to be, <u>we</u> have to be very clear (with regulators) to get that recognition there.

> It happened for the NPs, it happens for the LPNs and it happened for us to become a registered nurse. And I think we need to start thinking about those opportunities and how do we carve that out and how do we make it happen?

Summary

This chapter presents findings from the Delphi rounds of this project, where the participant group provided in-depth discussion of their experiences of CNS advocacy in NB and in Canada. Round one of their discussion focused on individual participants' experiences as a way to begin and engage their Deliberative Dialogue regarding the CNS role in NB. Round two continued to invite their feedback through administration of the online questionnaire. That second round of on-line feedback queried participants on six carefully chosen scholarly readings and asked for their rankings of strategies for renewing action to integrate the CNS role. Finally, round three of in-person dialogue yielded participants' responses and questions about the findings from rounds one and two (including a presentation of tentative recommendations). These three rounds of findings and resulting recommendations will be discussed further in Chapter Five of this report.

Chapter Five: Discussion of Findings and Recommendations

Stakeholders in this project articulated common concerns about CNS integration and sustainability in NB. Their concerns, expressed consistently throughout this project, were based on their experience and involvement in implementing advanced practice nursing in NB and in Atlantic Canada. Stakeholders identified the following barriers to sustained CNS practice in New Brunswick:

- inadequate role clarity/role recognition; persistent confusion about the role

- inadequate title protection
- limited use of clinical competencies for evaluation and system integration
- crises in nursing leadership due to system reorganization
- competition with other professionals
- increased workload and assignment of non-CNS duties
- attrition of CNS positions/losing employment opportunities and CNS voice in NB

It is important to recognize that many of these same barriers, though uniquely experienced in the context of New Brunswick, have been identified and discussed frequently in nursing literature (Bryant-Lukosius & DiCenso, 2004; Edwards et al., 2011; Charbachi et al., 2012; DiCenso & Bryant-Lukosius, 2010; Kenny et al., 2013; Kilpatrick et al., 2013; Kilpatrick et al. 2016a, 2016b).

In addition to these barriers to CNS practice, participants identified a unique barrier to CNS practice in NB, which they labeled as "Employer defining the CNS role." This barrier refers to specific ways that employment-related role definition has diminished the full integration of CNS practice in New Brunswick. For these participants, employer practices continue to circumvent (sometimes contradict) national expectations for basing CNS practice consistently in all professionally defined CNS role components for clinical competency.

In addition to identifying barriers to sustainable CNS integration in NB, participants also expressed concerns about not leveraging system-level opportunities for CNSs to contribute to primary care and primary health care. They acknowledged missed opportunities to build collective CNS presence in NB, based in no small part on

diminishing numbers of CNSs where positions have been lost through attrition. Participants also addressed missed opportunities in not integrating all the components of the CNS role. They believe that the full scope of the CNS role has not been leveraged to address system-level population health challenges. They believe this has occurred principally because competencies related to system-level leadership and research remain untapped. Participants nevertheless remain tentatively optimistic, still envisioning opportunities for leveraging CNS contributions to health care reform, using the full scope of CNS competencies in specific new areas of population health (e.g. gerontology, and long-term care).

While demonstrating clarity about obstacles to full CNS integration in NB, participants also expressed the "Need to Move Forward" – expressing a desire to move beyond talk. They express a kind of "fatigue" with discussion of barriers, as this has been ongoing for many years, with little change. Stakeholders expressed a need to engage renewed professional advocacy, political advocacy, and educational support in "concrete action" to sustain and strengthen the CNS role in NB. The themes and concerns they identified to achieve this forward momentum are discussed in more detail next.

Healthcare Reform and CNS Role Integration in New Brunswick

CNS Contributions to Health Care Reform in New Brunswick. Participants believe the CNS role is relevant to NB health care reform and system change. In referring to the CNA Core Competencies for CNS practice, they identified the following CNS domains of practice as making important contributions to NB Health Care Reform:

- Evidence-informed practice across different populations and areas of specialization

- System-level leadership relevant across different sectors/practice settings
- Contributing to the formulation of organizational goals and organizational/policies
- Contributing to the formulation of health policy and goals
- Quality assurance or attainment of organizational goals and policy through leadership, evaluation, and research.

The participant group considered CNS contributions to NB health care reform as outlined in the Province of New Brunswick (PNB) 2017 Family Plan. Participants saw desirable opportunities for wider integration and expanded CNS practice in NB, contributing productively to system reforms. Some enthusiastically identified opportunities for CNS contributions in NB within specific population-health areas such as gerontology and long-term care. Participants also suggested there are untapped opportunities for CNS leadership in acute care, given continuing organizational restructuring and losses of previous positions in nursing leadership.

Whole Systems Change and the CNS Role. Participants conveyed rankings of very high desirability and high feasibility for CNS contributions to health care reform in NB. The group focused on the relevance of system level leadership in clinical practice as relevant for system reform. System leadership and other core competencies were identified as particularly desirable and feasible in making contributions to the first 4 Pillars of the PNB Family Plan: improving access to primary health care, improving access to primary and acute care, promoting wellness, supporting those with mental health challenges, fostering healthy aging and support for seniors. While viewing the

2017 Family Plan as a desirable opportunity for sound integration of CNS practice, participants consistently expressed concern about not being recognized as contributors to that work. They expressed concern about a fiscally conservative environment, little understanding or recognition among policy makers and leaders about how the CNS role can contribute to reform, and a health policy environment with little interest in strengthening nursing leadership.

All participants believe CNS integration can contribute positively to NB Health Care reform under the Family Plan. Desirability of this leadership contribution is rated 4/4 (very desirable). Feasibility of this is rated 3/4 (feasible). An understanding of system leadership in NB was based on defined CNS system-level leadership competencies for CNS practice (CNA 2014). It is important to recognize that the CNS contribution to system-level change is defined, addressed, and described in every CNS competency domain. It is present in competencies related to clinical care, advancement of nursing practice, evaluation/research, and in system leadership.

Although participants recognized the potential for CNSs to **contribute** to system-level change for health care reform, some expressed ambivalence about whose responsibility it is to **lead** change. Importantly, there appears to be some confusion or ambivalence among stakeholders and among CNSs themselves about **how** CNSs contribute to whole systems change. Some participants expressed the view that the CNS's role is to **support** changes at the local level that have already been initiated at the national level. Given that ***systems leadership*** has been established nationally as a core competency for the CNS, it is imperative that CNSs begin to take ownership of this core competency and that they are supported in doing so. Also, given this expectation that

CNSs will contribute to system change, it is reasonable to ask why CNSs are not engaged in NB as a valuable resource for system-level reform. Indeed, the presence of system leadership as a competency expectation raises the question of why CNSs have not been more fully integrated in leadership of NB health care systems and their reform.

It is important that decision makers and policy makers be made aware of CNSs competencies related to system leadership. In considering this potentially wasted resource, CNSs' contributions to system-level change must be recognized, valued, engaged/deployed among CNSs themselves and by APN stakeholders. Participants in this project were concerned that the role may not be sustained in NB. The prospect of this possibility poses serious concerns about the loss of an important and immediately relevant health human resource. This speaks to the analysis of the ICN (2016), which specifically addressed the importance of integrating the contributions of advanced practice nurses (including CNSs) internationally as an essential health human resource (Bryant-Lukosius, & Martin-Misener, 2016). To address this concern of integrating CNS clinical leadership for system change, recommendations are presented later in this chapter, conveying participants' views about renewed advocacy to sustain the CNS role in NB and effectively engage them in health care systems.

Employer-Related Practices as Barriers to CNS Practice. While identifying the presence of common barriers to CNS practice in NB, participants also described a unique barrier to CNS integration in NB, one not previously identified in APN literature. They described this category as a recurring problem related to employers, identifying several employment related practices that limit the sustained integration of CNS practice in NB. Discussions of this barrier included a clear pattern of attrition, with fewer CNS

positions and opportunities for employment occurring over the last decade in NB. Participants interpret this pattern – in part – through the lens of seeing steadily increasing NP positions in NB during this same timeframe.

In addition to noticing attrition and a decline in posting new CNS opportunities, participants discussed different employment-related practices that erode full integration of the CNS role in NB. They focused repeatedly on continuous organizational restructuring in NB among employers. This has occurred in ways that lead to the loss of nursing leadership and a diminishment of the voice of nursing in NB. Optimistically, CNSs also try to view ongoing organizational restructuring as a possible source of opportunity. They recognize the relevance of CNS system leadership and view it as an important resource to support nursing practice during recurring cycles of reorganization. Their reality to date however has seen negative effects from organizational restructuring. These include increasing workload (some responsibilities not central to CNS practice) and competition with other providers. Within this context, they view the CNS role as continuously shifting and constantly responding to bureaucratic needs, rather than being grounded in professionally defined domains of clinical competence in advanced practice.

In this employment context, participants described experiences where NB employers emphasize one CNS role component (e.g. educator) at the expense of other domains of competency (e.g. research, evaluation, and system leadership). Participants also described how remaining CNSs can themselves individually contribute to role diminishment by concentrating on a single competency that they enjoy and spending most of their working time on that domain at the expense of others. In both cases, this has

resulted in situations where some CNSs now have no clinical practice time, or the CNS is expected to take on an excess of nurse educator responsibilities.

In these examples, important domains of competency (especially *Research/Evaluation* or *Advancement of Nursing Practice)* are extinguished. This has contributed to very little (if any) organizational support for the CNS competencies involved in *Advancement of Nursing Practice* (e.g. CNS consultation and networking activities), and *Evaluation and Research* competencies. This kind of diminishment of the full CNS role becomes very significant at the time when the CNS transitions out of the role. Then, the employer may conclude that the position no longer requires a CNS appointment, replacing it with, for example, a nurse educator. On a positive note, during this same discussion two CNSs described how they report to their supervisors on their monthly activities framed specifically according to the 2014 Core Competencies for CNS. They strategically remind their supervisors of their scope of practice and <u>all</u> role components, demonstrating why their role needs to continue as a CNS role. While not discussed extensively by this group of participants, this strategy warrants additional consideration among CNSs (and employers), as an action that can contribute positively to role clarification.

Collectively, participants report that CNSs display "compassion fatigue" in relation to professional self-advocacy for the CNS role in NB. Over time the ability for CNSs to meet competencies related to *Advancement of CNS Practice* has been met with employer resistance. There is diminishing administrative (and no financial) support for projects that would contribute to advancement and evaluation of the CNS role. CNSs described having to be creative in finding the time to network professionally, with the

expectation that such activities should be planned outside of working hours. The energy and time required to participate in formalized CNS advisory or interest groups has become increasingly burdensome. Currently there appears to be no formal professional advocacy in NB in support the CNSs collectively. This finding has relevance for how CNSs in NB may "move forward," how they can engage with the Association of Clinical Nurse Specialists of Canada (CNS-C) and how they can fulfill all the competencies defined for CNS practice.

These discussions of employer-related barriers to the integration of CNS practice in NB were accompanied by specific recommendations about responding through renewed advocacy. The participants had clear suggestions for how these concerns might be remedied. Those suggestions for advocacy are discussed next.

Renewed Advocacy to Integrate CNS Practice in NB ("Moving Forward")

Stakeholders addressed the second research question about renewed advocacy for the CNS role during all three rounds of the project. They clearly articulated a need for professional advocacy in NB, also calling for political advocacy to better integrate the CNS role in the province. They are deeply concerned that the role may not be sustained in NB. Their call for renewed advocacy involves system-level change to support sustained CNS integration. They described this as a need for a "re-awakening" regarding the CNS role where all stakeholders including leaders, decision-makers and regulatory bodies engage conversations that lead to "concrete action."

In discussing this need for renewed advocacy, participants described a need for broad collaborative participation by the professional nursing associations, employers, nursing leaders, educators, decision makers, health policy experts and human resource

planners. They recognize this system-level advocacy as necessary for system-level change. The participant group discussed this multifaceted need for advocacy as involving leadership from both national and provincial levels.

Moving Forward Through Professional Advocacy.

Stakeholders emphasized the need for both *professional* and *political* advocacy to achieve full integration of the CNS role in NB. The participant group clearly expressed the desire for such advocacy to begin at the **national level through CNA engagement.** Participants did not see themselves as acting in isolation. They did not see themselves as functioning independently as local **initiating** agents of whole systems change to better integrate CNS practice in NB. They view themselves as supporters of systems-level advocacy, facilitating change locally in conjunction with what they see as a needed national emphasis on CNS integration.

In participants' views, the practice reality in NB has not supported the CNS collective voice for systems-level change. This reality leads participants to not only invoke the need for national support, but to invite the engagement of local "allies" who will endorse renewed professional advocacy. Part of that vision of allied advocacy includes the use of APN research evidence about improved patient/systems outcomes. Participants also explicitly identified the need for linked national and provincial efforts to focus on issues including improved CNS role clarity, title recognition, and consensus regarding strategies for credentialing. For most participants, these strategies for moving forward also include protecting the title through certification and New Brunswick Nurses Union (NBNU) classification vs regulation.

Points of Advocacy: Role Clarity, Role Recognition, Title Protection.

In describing problems with role recognition, role clarity, and title protection, participants confirmed these as long-standing barriers to CNS sustainability in NB. As previously stated, these same barriers for CNS practice have been widely discussed in nursing literature throughout Canada. Participants view these issues as needing to be continually addressed in CNS education, by employers, by professional nursing associations and regulatory bodies. They express some frustration with continuing to experience ongoing discussion about barriers, without any concrete action to remedy them.

In this project, participants do not believe that extensive additional discussion or research is required to identify role recognition and title protection as barriers to practice. They believe these problems have been well documented. Instead they were eager to discuss some approaches to concrete action to resolve these barriers. They expressed recognition and readiness for renewed advocacy to resolve these professional issues related to CNS role integration. They expressed interest in having this advocacy engaged in New Brunswick in tandem with launching a CNA endorsed CNS Initiative (similar to the Canadian Nurse Practitioner Initiative [CNPI] launched in 2006). In their responses, participants indicated that such an initiative (in NB) would benefit from the formation of a CNS working group (in NB) representing *a broader collaborative entity* engaged in strategic planning to map out a future for the CNS role in NB.

Educational Support

One member of the group expressed concern over a perceived lack of clinically specific CNS postsecondary educational programs in Canada, in Atlantic Canada, and in

NB. This was perceived as contributing to a lack of role clarity and problems in clinically specific credentialing. This participant described how her CNS educational experience in the US contributed to role clarity, however, it is important to note that CNS certification in the US occurs through professional nursing organizations as a certification of clinical specialization, not as a result of a master's degree. There were suggestions from this same participant about providing a common clinical core (including content on pathophysiology and pharmacology) for all APN students enrolled in graduate degree programs. Beyond this single suggestion, the larger group expressed a different need, recommending that the CNS curriculum include an emphasis on leadership, policy and advocacy at the unit/organizational level (small "p") as well political advocacy and professional systems level leadership (big 'P"). These areas of curricular emphasis were viewed as being consistent with specific competencies for system level leadership found in every CNS core competency domain. It was also suggested that CNSs need to become more politically savvy in using already existing Canadian APN research.

Discussion of CNS education in NB also found most members of the group agreeing that a master's degree is very desirable (4/4) and very feasible (4/4) as an expectation for CNS practice. However, there was some question expressed by one participant about whether this requirement for an advanced degree was applicable/necessary in all situations. This comment may reflect the reality of NB nursing employers appointing nurses who are not master's prepared to CNS positions, despite the national position that the CNS role requires a master's degree. This practice was viewed as demonstrating the contradiction between nationally established educational requirements for the CNS and the employer's ambivalence or lack of commitment to

master's preparation as essential to the CNS role. All CNS group participants acknowledged that lack of title protection (e.g. certification, regulatory recognition, NBNU designation) contributed to this continued practice by the employer.

The topic of educational programs and their support or advocacy for CNS practice continued in the third Delphi round. Stakeholders again wondered about the possible advantages of a more clinically oriented CNS curriculum to be offered at UNB. Concerns expressed about this mirrored those that have been raised nationally and historically. University programs are not able to address all possible CNS clinical specialties (e.g. adult, gerontology, oncology, palliative care, pediatrics, mental health, cardiology, neurology, etc.) at the MN level. Additionally, in a rural province like NB with limited post-secondary programs in the health professions, it is difficult to justify offering one in-depth clinical area of specialization. Finally, as opportunities for sustainable CNS employment decline and disappear, it is becoming increasingly difficult to justify advanced specialized clinical preparation for CNSs. These considerations speak to the importance of ongoing collaborative work with university programs and to support those programs as they innovate with stakeholders.

In the past and presently, UNB has offered flexible choices at the MN level to RNs interested in the CNS role. Students can focus on their clinical specialty interests through faculty supervision and mentoring arrangements with practicing CNSs who have expertise in the students' areas of interest. Those curricular expectations have produced proposals from graduate students for new/different positions that would expand the CNS presence in NB. However increasingly, no new positions are being funded. These

findings again point to the need for ongoing innovative collaborative work with employers and the educational programs to advocate for CNS integration in NB.

Actions Required for Renewed Advocacy to Integrate the CNS Role in NB

Given the details contained in project findings, stakeholders discussed "knowledge to action" commitments they believe are necessary for renewed advocacy around the CNS role in NB. These actions for renewed advocacy are based on findings that point to the most *desirable, feasible* and *viable* knowledge-to-action commitments among participants.

In discussing these strategies during round three, participants envisioned linked initiatives at the provincial and national level to address sustained integration of the CNS role. Participants are concerned to move beyond earlier NB efforts when the CNS role was introduced. It is important to recognize that in earlier periods of introducing the CNS role, there may have been an assumption by stakeholders that system-level integration would occur organically, over time, using the PEPPA framework. As recent CNA (2019) analysis has indicated, those assumptions have proven inadequate for sustained, long-term system level integration. Participants' views about the importance of addressing system-level integration should be understood in this fluid context.

Advocates of APN in Canada have recently insisted that sustained integration of the APN role requires sustained long-term system-level evaluation of APN outcomes (Edwards, et al., 2011; CNA, 2016c; Roussel, 2016 & CNA 2019). CNSs engaged in this project were educated about the CNS role in a prior period of analysis where system-level evaluation of the CNS role was not emphasized. They also may not have experienced collective advocacy at a national level that reflects this focus on system level evidence

and advocacy. They therefore understand the history of CNS practice in NB as a history of having introduced the role and now experiencing its disappearance through attrition. For them, the history of "nearly extinguishing" the role has not been based on system-level evaluation or empirical findings about outcomes of CNS practice. They view stalled integration of the role at system-levels as having been negatively influenced by employers' practices of cost savings.

It also appears that CNSs participants may be expressing mixed reactions to the coherent national and provincial plan for sustaining NP practice, implemented nationally and provincially in the CNPI, in 2006. Given the positive effects of doubling the number of practicing NPs in NB during the CNPI, CNS participants may feel the question is fairly begged as to why no attention has been directed toward stronger integration of the CNS role. Expressing a sense of stalled and stagnated implementation of the CNS role (throughout Canada and especially in NB), participants in NB who have experienced the history of attempted CNS integration are clearly skeptical about continuing to talk about the CNS role; they are seeking sustainable CNS role integration through concrete action. To date, they have not been engaged/they have not engaged themselves in system level leadership to address this stalled role integration for CNSs.

Ironically, participants do understand many of the system-level barriers to CNS integration and they emphasize that effective action to intervene in sustainable CNS integration would require a simultaneous multi-faceted approach to address those barriers. They strongly emphasize that renewed advocacy will need to include other additional key CNSs and key stakeholders (e.g. CNSs from Vitalité, UdeM, employers, NBNU). They additionally recommend involvement of Department of Health, Social

Development and Regional Health Authority policy level experts and decision makers in collaborative discussions as allies to address health human resource planning, employment opportunities and strategies for ongoing integration of the CNS role. They view this horizon of collaborative action as necessary to make important and impactful contributions in NB.

Participants also emphasize a need for linked efforts between the Canadian Nurses Association and professional nursing organizations in New Brunswick (NANB and NBNU). They are aware that this kind of linked national and provincial approach to advocacy occurred through the Canadian Nurse Practitioner Initiative (CNPI) (2006). There was a suggestion throughout this project, strongly confirmed in round three, that it is now time to engage or re-engage a comparably structured, CNA-NB system-level initiative to support CNS integration. While participants wondered if that same kind of Canadian CNS initiative could be re-engaged or launched by CNA, they strongly agree that national efforts should be linked to provincial efforts across Canada for CNS advocacy (i.e. New Brunswick, through NANB). The extent to which this kind of forward movement can occur, engaging collaborative local and national levels of advocacy, is a crucial point for all stakeholders to now engage. CNSs themselves will be required in this event to engage themselves proactively in system-level leadership, which in this instance will involve professional and political activism/advocacy. Suggestions for achieving this are discussed in recommendations in the final section of this report.

In addition to this envisioned national-provincial professional strategy for a kind of “CCNS” initiative, participants considered some other specific ways to engage renewed advocacy in NB. For example, they expressed very high desirability and

feasibility for renewed advocacy through formation of a CNS special interest group within NANB. They also expressed very high desirability and feasibility for a different classification or designation within NBNU to address title recognition and title protection. They ranked some form of title protection (e.g. requirement for certification) as both desirable and feasible. While recommending advocacy on this topic, there are important questions among participants about what form title protection should take in NB (e.g. credentialing, certification, regulation). These concerns warrant more action-oriented engagement and deliberative dialogue.

In other proposed strategies for KTA, participants expressed very high desirability and feasibility for using the CNA (2014) Pan Canadian CNS Core Competency Framework to define, support and sustain CNS role integration in NB. They expressed related qualitative comments that were in support of using the CNA (2019) APN Competency Framework, specifically, using its strategies for successful role integration in NB. (The group rated the 2019 APN Framework as desirable and feasible [Likert ratings of 3/4]in terms of being relevant for CNS integration in NB). There were concerns however among some participants about blanket aspects of the 2019 Framework because it appears to obscure the specific need to focus on CNS integration. It is important to note that while the participants expressed this specific ambivalence toward the 2019 APN Framework, this may have been the result of this document being introduced to some participants (for the first time) during this project-without having the opportunity for widespread discussion among their peers. In hindsight, the group could have benefited from increased time to examine the 2019 APN Framework through additional discussion focused on context and intent of this publication.

Finally, participants expressed very high desirability and feasibility for advocacy through renewed activity of CNS advisory committee in NB. However, participants strongly indicated that it is not reasonable for CNSs to bear the sole burden of initiating renewed advocacy. Some recalled earlier advocacy efforts among a small group of practicing CNSs, in what was then a nascent advisory group in NB. That effort was met with a lack of employer support for required time commitments. The group expressed concern about the need for a more formal arrangement i.e. a CNS interest group, to support and facilitate CNS integration in NB, and the need to use already existing Canadian APN research demonstrating improved patient/systems outcomes. The group additionally emphasized the need to engage CNS "allies" beyond an interest group of peers. They envisioned that collective to include leaders, decision/policy makers from the regulatory body, education, nurse's union, department of health and employers. The group emphasized that such a collaborative could provide a multi-pronged approach informed by perspectives of CNSs and CNS stakeholders. They viewed this collaborative strategy as necessary to overcome the current trend of CNS role decline in NB. An interesting aspect of this recommended strategy is the extent to which CNSs believe that NPs would be important allies in this collaborative gathering of stakeholders.

Discussion of Action Commitments

In dialogue during the last round of deliberation, the participant group reviewed all findings from the first two rounds and again expressed optimistic interest in renewed activity to advocate for CNS integration in NB. They endorsed the following summary of categories of action commitments for renewed advocacy. These are aligned with and

address barriers to CNS practice in NB. These suggested forms of renewed advocacy are the basis for recommendations, presented in the final section of the report.

- There is an immediate need to move forward with renewed professional/political advocacy in concrete action to ensure sustainable integration of CNS role in NB. This should involve linked national (CNA) and provincial (NANB) CNS advocacy. The CNPI provides a model for such advocacy.
- There is a need for a stronger and different level of advocacy from employers. That level of advocacy involves understanding the CNS role and supporting CNS integration through job creation and ongoing evaluation/integration that is based firmly and specifically in all CNS competencies. The competencies of system leadership, advancement of nursing practice, and evaluation/research matter.
- There is also a need to advocate for CNS practice in NB by using CNA Frameworks, Position Statements, Strategies, and CNS specific Competencies to achieve role clarification, title protection and sustained integration. That use of competencies-based-language to clarify and sustain the CNS role is required among employers, also within the professional associations (NANB/NBNU), within educational programs, and among all relevant provincial stakeholders.
- There is a specific need in New Brunswick to advocate for formal CNS role recognition and title protection, again using competencies-based-language. The use of competencies-based-language should be specifically considered by NANB for inclusion in regulatory documents (e.g. entry to practice competencies) and standards of practice. There is also a need for advocacy from both NANB and NBNU in formally considering use of competencies-based-language for measures

such as title classification/designation and certification requirements – to protect the CNS title.

- There is a need for continued and strong advocacy from post-secondary educational programs to support CNS integration, using clinical competencies to define curricular outcomes necessary for CNS entry to practice.

Reflecting on participants' calls for renewed CNS advocacy, their hopeful appraisal about a reawakening to integrate CNSs has conscientizing effects. They suggest that action commitments for renewed advocacy can be engaged, even in a period of fiscal constraint. Their call for an immediate and coordinated initiative for CNS integration is a reminder of similar calls to action that produced the Canadian Nurse Practitioner Initiative in 2006. Remembering that initiative, its successes, and lessons learned, begs the question of why a similar, comparable CNS-related initiative would not be warranted at this time. The stakeholders in this project were clear in their message that concrete action is needed immediately to address better integration of the role in NB. Could NB become an innovator, initiator, a collaborative champion for CNS integration, that engages with others in a national initiative (similar to CNPI) to establish widespread CNS integration in NB and beyond through systems change?

Given findings from this project, it also seems clear that current employers of CNSs in NB (HH, Vitalité), along with other potential employers (Department of Social Development) need to be included as key stakeholders in any discussions or initiatives concerning integration of the CNS role. Though regional health authorities as employers were not represented in this research project, findings clearly demonstrate why their participation is necessary.

To realize the potential of the CNS role to contribute substantively to health care systems in NB, employer participation is crucial. It seems clear that this could begin with increased/fresh and updated understanding among employers of the body of Canadian research and evidence supporting the CNS role, evidence about how and why CNSs contribute to improved patient/systems outcomes, along with consideration of employer-related challenges This involvement of employers is anticipated in recommendations that follow for continued deliberative dialogue among stakeholders.

Based on themes about CNS system-level contributions in NB, participants clearly recognize that the CNS is an important health human resource for the province. They believe that CNS contributions in system leadership are best implemented by relying on defined competencies for CNS practice, as identified by the Canadian Nurses Association Pan Canadian Framework of CNS Core Competencies (2014).

In considering the findings of this project, the voices of participants communicated a strong "Call to Action" for immediate professional advocacy to support CNS practice in New Brunswick. That Call to Action is conveyed below in eleven recommendations, which have been reviewed with participants. The recommendations are driven by participants' views and they are focused on ensuring the sustained integration of the CNS role in New Brunswick.

Recommendations:

Given the collaborative process of this project, the student researcher and the project advisors recommend the following actions:

A. That NANB continue to officially and strongly recognize and acknowledge the potential of the CNS role (based on national research evidence of improved

patient/systems outcomes), to contribute to the achievement of health goals in the Province. It is important that NANB continue to champion the integration of the CNS role with CNA. To that end, the project recommends that NANB consider lobbying CNA for a national plan to engage a CNS related initiative, modeled on the Canadian Nurse Practitioner Initiative in 2006.

B. That NANB leadership review the CNA Pan Canadian APN Framework (2019) with close attention to its 26 strategies for successful integration of both APN roles.

C. That NANB initiate the formation of a New Brunswick **CNS Collaborative**, as an interim step to continue deliberative dialogue regarding CNS role integration in NB. The Collaborative should consist of provincially based "allies" supporting local CNSs' renewed activities of professional advocacy. Membership in the CNS Collaborative would include representatives from: practicing CNSs in both RHAs, relevant educators from UNB and UdeM, relevant leadership from NBNU, a NANB practice advisor for advanced practice nursing, relevant policy experts and health human resource planners from the Dept Health, Chief Nursing Officers and other relevant employment related decision-makers from HH and Vitalité, at least one relevant representative from CNS-C, a relevant representation from NBNP (when appropriate), relevant representation from CASN (concerning use of 2015 masters level curricula framework). The formation and engagement of this CNS collaborative should be facilitated by formal appointment of suitable senior level leadership from NANB.

D. The project findings provide recommended points of KTA commitments. These should be addressed in continued deliberation by the Collaborative. Those points of deliberation will require continued dialogue as follows:

- Formulate terms of reference for the collaborative and a timeline in 2020-2021 for members to review points of analysis found in this report
- Review most recent updates on completion of CNPI as an example of systems level integration to support APN.
- Consider an invitation from the collaborative to support a NANB CNS Interest Group
- Review PNB 2017 Family Plan or the then most current PNB Health Plan as an opportunity for CNS integration in NB.
- Develop and implement a timeline for systems level use of CNA (2014) Pan-Canadian CNS Core Competencies. This plan should anticipate use of CNA competency-related language in regulatory documents to recognize and endorse CNS integration.
- Update and use that updated version of the 2016 CNA CNS Position Statement to recognize and endorse CNS integration in NB.
- Review and use the 2019 APN Pan-Canadian APN Framework **strategies** as guidance for CNS advocacy.
- Review recent Canadian based APN research (e.g. from CCAPNR), considering evidence of CNS role contributions to improved patient/systems level outcomes.

E. That NANB explore and implement new data gathering methods to provide adequate information about CNS practice in NB. This should improve NANB's access to system relevant data regarding CNS practice. (e.g. number of positions held by CNSs, positions formally titled as CNS appointments, context of practice or

the population served, level/educational specialization associated with the appointment, years each member has been practicing as a CNS, level of clinical expertise required at the time of appointment, self-evaluation based on CNS competencies, etc.). Design of a data base to achieve this level of information for NANB may be strengthened by considering the CNA 2019 Evaluation Matrix, defined as PEPPA-Plus.

F. That the University of New Brunswick continue to support registered nurses interested in CNS education through the provision of flexible choices within the current thesis/project stream. UNB should continue to address *systems-level leadership* and *health policy* in the research stream through learning objectives that emphasize CNS domains of competency (system leadership, advancement of nursing practice, research, and evaluation). The MN curriculum should also continue to offer carefully considered and sequenced clinical practicum placements with CNSs practicing to full scope when possible. The extent to which program outcomes could be better met by requiring a common course that includes pathophysiology and pharmacology for both NP and thesis/project students is a point of clarification for the graduate faculty.

The MN curriculum at UNB should continue to highlight Canadian based research (e.g. CCAPNR at McMaster University) supporting APN roles at systems levels. The MN program should continue to clarify the CNS role for all MN students, including those enrolled in the NP stream. The MN curriculum should consider strengthening learning objectives that include both interpersonal competencies of clinical leadership and *systems level leadership/advocacy*. Emphasis on the PEPPA Plus model of whole

systems change (CNA 2019) as well as individual competencies for clinical leadership are both important.

G. That both post-secondary educational programs (UNB and UdeM) continue to participate and contribute to deliberations about CNS practice in NB as key stakeholders in the proposed NB CNS Collaborative.

H. That NANB consider an invitation to formally sponsor a CNS Interest Group. That step would be consistent with empowering CNS identity and supporting CNS contributions to the Collaborative.

I. If endorsed by members of a CNS interest group and the CNS Collaborative, we further recommend that NANB consider supporting a **CNS Forum,** as a mechanism to support renewed advocacy for the CNS role. The CNS forum might occur 1-2 times a year. Its purpose would be to continue deliberative dialogue among CNSs, who could come together to share resources, network, and present practice concerns. It was suggested that this type of activity (contributing to professional advocacy) might be supported by the employer (HH) under CNS "education." Such a forum might also facilitate interactions in NB with the Atlantic Region of the Canadian Association of Clinical Nurse Specialists. If created, the report findings recommend that such a forum include at least periodic asynchronous online discussions. These offer many advantages such as flexibility in terms of time commitments.

J. To assist CNSs to address the CNS competency of *Advancement of Nursing Practice,* CNSs might attend/participate in an annual CNS Forum to be hosted/sponsored by NANB. CNSs individually/collectively continue to assist supervisors/employers to become more aware of the role through self-evaluation and discussion of the role based

on the 2014 Pan Canadian Core Competencies for CNS. CNSs must continue to document and present all reports to supervisors, directors, employers addressing all CNS competencies.

K. To assist CNSs to meet the CNS competency of *Evaluation and Research*, UNB/UdeM and NANB, as part of the proposed NB CNS Collaborative, continue to build on partnerships through collaboration in research for advanced practice nursing in NB. Additionally, that CNSs individually/collectively participate in, contribute to, and evaluate advanced practice research, linking CNS role competencies to improved patient/systems level outcomes, through projects with UNB/UdeM schools of graduate studies and NANB. Examples of such academic partnerships already exist in Canada and these should be considered. Research partnerships have produced evidence linking improved CNS practice, and improved patient outcomes, demonstrating the importance of continued CNS participation in research (Harbman et al., 2016).

L. Finally, that the proposed NB CNS Collaborative becomes the "home" of CNS role advocacy in NB through connections to national level advocacy and initiatives such as the Clinical Nurse Specialist Association of Canada.

Project Limitations

The aim of this study was to explore selected stakeholder perspectives regarding 1.) the experience of implementing the CNS role in NB, 2.) potential contributions CNSs can make to health care reform in NB, and 3.) prospects for renewed advocacy to fully integrate the CNS role in NB. The purposive sample included six participants (both CNSs and non-CNS expert nurses) who have an interest in CNS integration in NB.

While important insight was generated from this descriptive, exploratory research, there were limitations of this project that are acknowledged here. For this Community Based Collaborative Participatory Action Research project, consideration of sample size and characteristics of eligible stakeholders were constrained, in part due to the scope of the project at the master's level. Another important limitation included the mono-lingual language capacity of this researcher. As such, this project did not include participants currently employed within NB's Vitalité Health Network. As the second largest employer of RNs in NB, I recognize that this is a significant limitation of this project and that those stakeholders' perspectives about the CNS role matter deeply in NB.

Although every reasonable and concerted attempt was made to recruit an expert panel of eight to ten participants who could commit to the duration of this project, only six participants contributed to this study. Scheduling this group of professionals for group discussion proved to be a challenge. While resources were not available at the time to meet using remote videoconferencing, attrition of participants might have been avoided by using this or other alternative meeting methods (e.g. online synchronous discussion). As such, the small sample size of this project is recognized as a limitation.

Due to participant attrition, other vital stakeholder perspectives are missing from this report; from Horizon Health Network (as employer) and New Brunswick Nurses Union (NBNU). As they are key stakeholders in APN practice in NB, I recognize this as another significant limitation of this project. It is imperative in any future professional collaborations regarding CNS practice in NB that these important stakeholders' contributions are included.

The CNS role in NB was the focus of this project, with five of the six participants' perspectives representing the current realities of professional nursing in NB. As such the findings of this project and consequent recommendations, as a product of this specific context, and may not be generalizable to other regions of Canada. I recognize the possible lack of transferability of findings as a limitation of this project.

Summary

The stakeholder participant group provided in depth discussions of their experiences of CNS role advocacy in NB (Canada), identifying a unique **Employer** focused barrier to practice. CNS participants articulated potential for CNS systems-level contributions to health care reform while identifying specific clinical areas as potential opportunities for CNS positions in geriatrics, addictions, and long-term care.

Participants clearly indicate it is time to move beyond discussions of continuing system-level barriers to practice, to engage professional and political **actions** to ensure CNS role recognition and systems-level integration, using already-existing APN outcomes research.

Participants clearly expressed the need to gather provincial "allies" to support a "re-awakening' of the CNS role in NB. The group emphasized the need for a collaborative, multi-pronged approach involving CNSs and CNS stakeholders to address the systems level inertia that continues to negatively affect the viability of this APN role. It is time for **national** and **provincial** CNS initiatives to begin immediate concrete political/professional actions to address system-level barriers. These include lack of regulatory role recognition (e.g. CNS specific wording in regulatory documents), title

protection (e.g. certification), NBNU designation (recognition of MN) and employer support (of all CNS role competencies).

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Appendix A: UNB-NANB Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (the "**MOU**") is made effective as of [November 26, 2018] (the "Effective Date").

BETWEEN:

THE UNIVERSITY OF NEW BRUNSWICK having its administrative offices at 3 Bailey Drive, Room 215, Fredericton, NB, E3B 5A3 ("**UNB**");

AND

THE NURSES ASSOCIATION OF NEW BRUNSWICK, doing business as a legal entity having its Corporate Office at 165 Regent St, Fredericton, NB E3B 7B4 ("**Partner**").

(Collectively referred to as the "Parties" and individually as a "Party")

WHEREAS The UNB Nursing Graduate Academic Unit ("GAU") and the Partner, The Nurses Association of New Brunswick wish to support certain Master of Nursing Students ("**Nursing Students**") in pursuing research as part of their scholarly work (the "**Purpose**"); and

WHEREAS Partner and UNB wish to begin a collaborative initiative to establish shared goals and plans under this MOU to collaborate in fulfilling the Purpose.

NOW THEREFORE the Parties to this MOU agree as follows.

1. OBJECTIVES

1.1 This MOU will serve to outline the roles and the responsibilities of Partner and UNB during the term of this MOU.

2. MOU PURPOSE

2.1 The purpose of this MOU is to establish a governance process between Partner and UNB in order to execute collaborations between UNB Graduate Nursing Students and UNB supervisors with the Partner's advisors in order to support the objectives in section 1.1 above.

2.2 The program abilities and descriptions for Nursing Students are set out in Appendix 1 (the "**Program Abilities and Descriptions of Thesis or Report**") below.

2.3 This MOU is not intended to, and does not, create a legal partnership or joint venture relationship between the Parties. Neither Party is authorized to act as an agent for the other Party in the course of carrying out the research, and may not in any way bind the other Party and shall take all steps necessary to ensure that each third party involved in

the carrying out and completion of the research are aware that neither Party is authorized to act as an agent for the other Party nor bind the other Party in any way.

3. FUNDING

3.1 This MOU is not a commitment of funds between UNB and Partner.

4. ROLES AND RESPONSIBILITIES

4.1 The Parties intend to undertake the following key activities pursuant to this MOU:

(a) The designated UNB Director of Graduate Studies and/or Administrative Assistant and/or designated faculty advisor (the "UNB Supervisor") will identify certain Graduate Nursing Students as potential candidates for Scholarly Work Projects ("**SWP**") (theses or reports) according to UNB's internal policies and guidelines;

(b) Partner will identify an advisor or co-supervisor (the "SWP Partner Advisor") with appropriate skilled resources to guide the Nursing Student's thesis or report activities as applicable to the SWP and according to Partner's policies and procedures;

(c) If required, Partner will assist as necessary to identify and establish partnerships with various stakeholders affiliated with Partner in New Brunswick to collaborate with the Nursing students;

(d) If required, the Parties will engage in national consultation with experts to assist with the research activities for the SWP;

(e) Subject to the terms of this MOU, the Parties will mutually agree on the terms of each thesis or report under a SWP. The SWP template is attached for reference as Appendix 2 below;

(f) Where appropriate, and in conjunction with the UNB Supervisor, the SWP Partner Advisor shall inform Nursing Students that they are required to abide by Partner's policies and procedures, as part of their professional obligations;

(g) The UNB Supervisor and SWP Partner Advisor shall provide Nursing Students with academic resources required to complete the Purpose;

(h) The thesis or report UNB Supervisor shall verify that Nursing Students are meeting expectations in performing the Purpose; and

(i) The report or thesis UNB Supervisor shall be responsible for evaluating Nursing Students' performance and shall solicit feedback from the SWP Partner Advisor. For the sake of clarity, the SWP Partner Advisor will not play a formal role in the examining board.

4.2 Partner and UNB agree that flexibility and fairness will rule as the intent of this MOU.

4.3 Each Party agrees to participate with the other in the performance of work and to attend such events and meetings as are reasonably necessary to reach the Purpose of this collaboration.

5. CONFIDENTIALITY

5.1 Confidential information shall mean information provided by one Party ("Disclosing Party") to the other Party ("Receiving Party") and which the Disclosing Party wishes to keep confidential and so indicates at the time of disclosure ("Confidential Information").

5.2 The Parties agree to keep in confidence and not to use, except as related to the Purpose, or to disclose to third parties any Confidential Information disclosed to it by the other Party as defined in this MOU and any *SWP* executed between the Parties. The Receiving Party shall only make copies of the Confidential Information as are necessary for the Purpose described in this MOU and shall limit the internal disclosure of Confidential Information to those officers and employees who have a need to know and an obligation to protect it. The Receiving Party shall not be liable for the inadvertent disclosure of Confidential Information provided that it has exercised the same degree of care to protect such Confidential Information as it uses to protect its own Confidential Information.

5.3 Confidential Information shall not include information that:

(a) can be shown by documentation to have been in the public domain prior to the time of disclosure or subsequently comes into the public domain without fault of the Receiving Party;

(b) can be shown by documentation as having already been known to the Receiving Party at the time of disclosure;

(c) is used or disclosed by the Receiving Party with prior written approval of the Disclosing Party;

(d) is disclosed by third parties that did not have any obligation of confidentiality;

(e) can be shown by documentation to have been independently developed by Receiving Party; or

(f) is required to be disclosed by law or a regulatory authority.

5.4 If UNB receives a request under the *Right to Information and Protection of Privacy Act*, S.N.B. 2009, c. R-10.6, as amended, (the "**Act**") to disclose any information that, under this Agreement, is the Partner's Confidential Information, it will notify Partner and will consult with Partner promptly and before making any disclosure under that Act. Partner will respond to UNB within ten (10) days after receiving UNB's notice if that notice requests Partner to provide information to assist UNB to determine whether or not an exemption to the Act applies to the information requested under the Act.

5.5 Partner acknowledges that UNB or the Nursing Student may need to disclose information in a thesis, report or seminar for the purpose of obtaining a university degree. Any such

publication or disclosure of information will be in accordance with UNB's existing policies and procedures.

6. INTELLECTUAL PROPERTY

6.1 Background Intellectual Property. Ownership of inventions, discoveries, works of authorship and other developments existing as of the Effective Date hereof, and all patents, copyrights, trade secret rights and other intellectual property ("Intellectual Property") rights therein are not affected by this MOU and no Party shall have any claims to Background Intellectual Property of the other Party or Nursing Students.

6.2 All Intellectual Property arising from and related to the Purpose, including research data and results ("Foreground Intellectual Property") shall vest with the Nursing Student.

6.3 This section 6 will survive expiry or the termination of this MOU for any reason and will continue indefinitely.

7. DURATION

7.1 This MOU may be modified by mutual consent of the Parties. This MOU may be terminated for any reason by either Party with thirty (30) days advance written notification to the Partner.

7.2 This MOU shall become effective on the Effective Date and will remain in effect unless modified as mutually agreed to by the Parties or terminated early by either Party for a period of five (5) years. The Parties shall mutually agree on any extension to this MOU by executing an amendment to this MOU.

7.3 Each of the Parties will notify the other promptly if at any time the UNB Supervisor or SWP Partner Advisor is unable or unwilling to continue to be involved in the SWP. Within three (3) months after the date of that notice, the Party who originally appointed that person will nominate a successor. The other Party will not unreasonably refuse to accept the nominated successor, but if the successor is not acceptable to the other Party on reasonable grounds, or if the appointer cannot find a successor, either Party may terminate this MOU by giving the other not less than three (3) months' notice.

8. LIABILITY

8.1 Each Party assumes their own liability for any loss, damage, costs, and expense resulting from any negligence or wilful misconduct or failure to comply with any applicable laws and regulations and has no obligation to those of the other Party.

9. DISPUTE RESOLUTION

9.1 In the event of a dispute arising from the interpretation or operation of this MOU best efforts between the Parties will be used to resolve the matter amicably

10. NOTICES

10.1 Any notice, demand, request or other communication (a "Notice") required or permitted to be given to either Party under this MOU shall be in writing and shall be satisfactorily given by personal delivery, registered mail or by electronic means of communication, addressed to the recipient as follows:

(a) If to UNB, at:

University of New Brunswick
In care of:
Office of Research Services
PO Box 4400
3 Bailey Drive, Room 215, Sir Howard Douglas Hall
Fredericton, NB E3B 5A3
Phone: (506) 453-4674
Fax: (506) 458-7600
Email: ors@unb.ca
Attention: Executive Director

with a copy to: Director, Graduate Studies – Nursing

(b) If to Nurses Association of New Brunswick at:

165 Regent St, Fredericton, NB E3B 7B4
Phone: (506) 458-8731
Fax: (506) 459-2838
Attention: Executive Director

11. GENERAL

11.1 **Headings:** The headings in this MOU are for ease of reference only; they do not affect its construction or interpretation.

11.2 **No agency:** Nothing in this MOU creates, implies or evidences any partnership or joint venture between the Parties, or the relationship between them of principal and agent. Neither Party has any authority to make any representation or commitment, or to incur any liability, on behalf of the other.

11.3 **Entire agreement:** This MOU constitutes the entire agreement between the Parties relating to its subject matter and supersedes all other documents or agreements, whether written or verbal, in respect of the subject matter. Each Party acknowledges that it has not entered into this MOU on the basis of any warranty, representation, statement, agreement or undertaking except those expressly set out in this MOU.

11.4 **Amendments:** No variation or amendment of this MOU will be effective unless it is made in writing and signed by each Party's representative. A Party wishing to amend this MOU shall provide thirty (30) days written notice of its intention to do so.

11.5 **Counterparts:** This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement. The exchange of copies of this Agreement and of signature pages by facsimile or electronic transmission shall constitute effective execution and delivery of this Agreement as to the Parties and may be used in lieu of the original Agreement for all purposes. Signatures of the Parties transmitted by facsimile or electronic transmission shall be deemed to be their original signatures for all purposes.

IN WITNESS WHEREOF the duly authorized representatives of the Parties hereto have executed this MOU as of the Effective Date.

THE UNIVERSITY OF NEW BRUNSWICK

(Name)
Title: Kelly Ashfield, P.Eng.
Executive Director
Office of Research Services, UNB

Date: Jan 9, 2019

NURSES ASSOCIATION OF NEW BRUNSWICK

(Name)
Title: Executive Director

Date: Nov 28, 2018

Appendix B: Scholarly Work Project Agreement

SCHOLARLY WORK PROJECT

This Scholarly Work Project (the "**SWP**") is made effective as of the [November 26, 2018] (The "**Effective Date**).

BETWEEN:

THE UNIVERSITY OF NEW BRUNSWICK ("**UNB**") having its administrative offices at 3 Bailey Drive, Room 215, Fredericton, NB, E3B 5A3 on behalf of [Janice Thompson] (the "**UNB Supervisor**") and [Anna McQueen] (the **Student**");

THE NURSES ASSOCIATION OF NEW BRUNSWICK having its principal place of business at 165 Regent St. Fredericton, NB E3B 7B4 [("Partner") on behalf of [Kate Sheppard] (the "SWP Partner Advisor").

(Collectively referred to as the "Parties" and individually as a "Party")

WHEREAS The UNB Nursing Graduate Academic Unit (GAU) is pursuing health research;

WHEREAS The Canadian Nurses Association (CNA) recognizes two distinct roles for Advanced Practice Nursing as Nurse Practitioner and Clinical Nurse Specialist (CNS);

WHEREAS The Partner, as a provincial chapter of CNA, issued a position statement in 2012, supporting the CNS role (NANB, 2012) as amended over time;

WHEREAS the Student (Anna McQueen) is undertaking the Report to fulfil the [UNB Master of Nursing] curriculum requirements (the "**SWP**");

WHEREAS The Parties have entered into a Memorandum of Understanding dated [November 26, 2018] (the "MOU") attached hereto, in support of the performance of certain Master of Nursing Program SWPs and therefore, the Parties wish to enter into this collaboration with respect to this particular SWP;

WHEREAS the UNB Supervisor (Janice Thompson) will provide academic advice and guidance to the Student;

WHEREAS Partner is engaged in advisement concerning CNS practice; and

WHEREAS the Partner (on behalf of the SWP Partner Advisor), and UNB, (on behalf of the UNB Supervisor and the Student) wish to join a collaborative initiative to establish shared plans and goals under this SWP to collaborate in conducting the SWP.

NOW THEREFORE the Parties to this SWP agree as follows.

1. **OBJECTIVES**

1.1 To establish a relationship between the Parties in order to support the achievement of Student's proposal outlined in Attachment 1.

a) promote collaborative creation and use of health research that facilitates a deeper understanding of how evidence contributes to informed decision-making in dynamic health care environments; and

b) provide the Student with the opportunity for experiential learning with the support of an Advisor from the Partner facilities that facilitates fulfillment of curriculum requirements described in the SWP.

2. SWP PURPOSE

2.1 This SWP will serve to outline the roles and the responsibilities of the UNB Supervisor, SWP Partner Advisor and the Student during the term of this SWP.

2.2 The Partner agrees that the Student's work at Partner Facilities does not create an employer-employee relationship and the Student shall not be paid any form of remuneration or benefit by Partner.

3. FUNDING

3.1 This SWP is not a commitment of funds between UNB and the Partner.

4. ROLES AND RESPONSIBILITIES

4.1 The Parties intend to undertake the following key activities pursuant to this SWP:

4.2 Responsibilities of the Student:

a) Successfully completes the requirement for a thesis or report in accordance with UNB regulations; and

b) Adheres to the obligations as set forth in this SWP and the MOU executed between UNB and Partner.

4.3 Responsibilities of the designated SWP Partner Advisor from the Partner:

a) Provides appropriate feedback, guidance and supervision of research activities to the Student throughout the duration of the development of the SWP consistent with UNB regulations for thesis or report work;

b) Outlines expectations concerning Student obligations throughout the duration of the development of the SWP;

c) Ensures all institutional policies and procedures are met related to confidentiality, privacy and security.

d) Arranges introductions and meetings with key personnel, administrators and support staff;

e) Provides support and guidance on data collection and analysis;

f) Meets with the Student regularly to discuss the progress of the SWP and, if need be, to promptly notify the UNB Supervisor and SWP Partner Advisor of any matters that require attention; and

h) Where possible, provides feedback to the Nursing Graduate Academic Unit regarding the overall collaborative experience and future endeavors.

4.4 Responsibilities of the UNB Supervisor

a) Liaises with Partner to match the Student's research goals and interests with an appropriate Advisor; and

b) Provides supervision to the Student as defined by UNB regulations.

4.5 Partner and UNB agree that flexibility and fairness will rule as the intent of this SWP.

4.6 Each Party agrees to participate with the other in the performance of work and to attend such events and meetings as are necessary to reach the objectives of this collaboration.

5. CONFIDENTIALITY

5.1 Any disclosure of confidential information under this SWP will be subject to the terms of the MOU. Any additional confidentiality obligations specific to this SWP are set out as follows:

For the purpose of this SWP, Confidential Information includes data, documents, correspondence, communications, processes, or practices exchanged or discussed as part of the Modified Delphi Study process (collectively, whether verbal, written or existing, stored or communicated in any other form or medium, together with all copies thereof, however or whenever made, the "**Confidential Information**").

6. INTELLECTUAL PROPERTY

6.1 Pre-existing Intellectual Property. Ownership of inventions, discoveries, works of authorship and other developments existing as of the Effective Date hereof, and all patents, copyrights, trade secret rights and other intellectual property ("**Intellectual Property**") rights therein are not affected by this SWP and no Party shall have any claims to pre-existing Intellectual Property of the other Party.

6.2 All Intellectual Property arising from and related to the SWP shall vest with the Student.

6.3 The Nursing Student hereby grants Partner and UNB a perpetual, non-exclusive, non-transferable, royalty-free license, without right to sublicense, to use the thesis or report as part of the Foreground Intellectual Property from the SWP for internal, non-commercial research and educational purposes.

7. DURATION

7.1 This SWP may be modified by mutual consent of the Parties. This SWP may be terminated for any reason by either Party with thirty (30) days advance written notification to the other Party.

7.2 This SWP shall become effective on the Effective Date set out above and will remain in effect unless modified or terminated early by either Party, until completion of the report (the "Term").

7.3 Each of the Parties will notify the other promptly if at any time the UNB Supervisor or the SWP Partner Advisor appointed by that Party is unable or unwilling to continue to be involved in the SWP. Within three (3) months after the date of that notice, the Party who originally appointed that UNB Supervisor or the SWP Partner Advisor will nominate a successor. The other Party will not unreasonably refuse to accept the nominated successor, but if the successor is not acceptable to the other Party on reasonable grounds, or if the appointer cannot find a successor, either Party may terminate the SWP by giving the other not less than three (3) months' notice.

8. DISPUTE RESOLUTION

8.1 In the event of a dispute arising from the interpretation or operation of this SWP, it will be referred to the Parties' representatives set out below, who will use their best efforts to resolve the matter amicably. If such negotiation fails, the Parties intend to refer the matter to: Vice President Research (UNB) and NANB Executive Director for resolution.

9. NOTICES

9.1 Any notice, demand, request or other communication (a "**Notice**") required or permitted to be given to either Party under this SWP shall be in writing and shall be satisfactorily given by personal delivery, registered mail or by electronic means of communication, addressed to the recipient as follows:

(a) If to UNB, at:

University of New Brunswick
in care of:
Office of Research Services
PO Box 4400
3 Bailey Drive, Room 215, Sir Howard Douglas Hall
Fredericton, NB E3B 5A3
Phone: (506) 453-4674
Fax: (506) 458-7600
Email: ors@unb.ca
Attention: Director of Graduate Studies - Nursing

(b) If to Partner, at:

The Nurses Association of New Brunswick
165 Regent St, Fredericton, NB E3B 7B4
Phone: (506) 458-8731

Fax: (506) 459-2838
Email: Kate Sheppard <ksheppard@nanb.nb.ca>
Attention: Kate Sheppard, Practice Advisor/Partner Advisor

10. GENERAL

10.1 **Headings:** The headings in this SWP are for ease of reference only; they do not affect its construction or interpretation.

10.2 **No agency:** Nothing in this SWP creates, implies or evidences any partnership or joint venture between the Parties, or the relationship between them of principal and agent. Neither Party has any authority to make any representation or commitment, or to incur any liability, on behalf of the other.

10.3 **Entire agreement:** This SWP constitutes the entire agreement between the Parties relating to its subject matter and supersedes all other documents or agreements, whether written or verbal, in respect of the subject matter. Each Party acknowledges that it has not entered into this SWP on the basis of any warranty, representation, statement, agreement or undertaking except those expressly set out in this SWP.

10.4 **Amendments:** No variation or amendment of this SWP will be effective unless it is made in writing and signed by each Party's representative.

10.5 **Counterparts:** This Agreement may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.

IN WITNESS WHEREOF the duly authorized representatives of the Parties hereto have executed this SWP as of the Effective Date.

THE UNIVERSITY OF NEW BRUNSWICK

Kelly Ashfield, P.Eng.
Executive Director
Office of Research Services, UNB

Date: January 9, 2019

THE NURSES ASSOCIATION OF NEW BRUNSWICK

Executive Director

Date: Nov 28, 2018

Acknowledgement of UNB Supervisor

I, Janice Thompson, having read and understood this SWP, hereby agree to act in accordance with all the terms and conditions herein, and further to agree to ensure that all UNB personnel involved in the report are informed of their obligations under this Agreement and agree to act in accordance with such terms and conditions.

[NAME] Date: Nov. 13/18

Acknowledgement of SWP Partner Advisor

I, Kate Sheppard, having read and understood this SWP, hereby agree to act in accordance with all the terms and conditions herein, and further to agree to ensure that all Partner personnel involved in the SWP are informed of their obligations under this Agreement and agree to act in accordance with such terms and conditions.

[NAME] Date: NOV 28/18

Acknowledgement of Student

I, Anna McQueen, having read and understood the requirements of this SWP and agree to be bound by them as appropriate to my role.

[NAME] Date: Dec 5 2018

Appendix C: Information/Invitation to Participate Letter

Study title: Envisioning an Integrated Clinical Nurse Specialist Role in Primary Care and Primary Health Care for Health Care Reform in New Brunswick:
A Modified Delphi Study of Key Stakeholder's Perspectives
Investigator: Anna McQueen Master of Nursing Student, University of New Brunswick
Community Partner-Nurses Association of New Brunswick (NANB)
Report Committee/Research Team: Dr. J Thompson Professor, FON GAU (Report Supervisor), Dr. K Wilson, Associate Vice President Academic, Associate Professor FON GAU (2nd Report Committee member), K Sheppard Senior Advisor Nursing Education and Practice (NANB Community Partner Advisor), A McQueen (Student Researcher).
Purpose: The purpose of this study is two-fold; firstly, to explore and describe the current status of evolution of the Clinical Nurse Specialist (CNS) role in New Brunswick and secondly, to explore the potential for renewed stakeholder dialogue regarding the future of the CNS role in NB.

Background: The Canadian Nurses Association (CNA) recognizes two distinct advanced practice nursing roles: The Nurse Practitioner and The Clinical Nurse Specialist (CNS). Recent national activity regarding the CNS role includes: The 2014 publication of the "Pan Canadian Competencies for the Clinical Nurse Specialist by CNA, the CNA updated position statement regarding CNS in 2016, and the initiation of the Clinical Nurse Specialist Association of Canada (CNS-C), a national interest group with CNA. Recent provincial activities include the NANB updated position statement regarding the CNS role.

In 2012, Charbachi, Williams and McCormick collaborated with the newly formed New Brunswick Clinical Nurse Specialist Advisory Committee and engaged research to articulate the CNS role in New Brunswick (NB), in attempts to protect the role from elimination during provincial health care restructuring. The resulting collaboration produced a description of the CNS role (Charbachi, Williams & McCormick, 2012) containing five facets of practice: clinician, leader, educator, consultant, and researcher (p. 62). Since 2012, the number of CNS positions in New Brunswick (NB) continues to decline, despite continued national research building evidence in support of contributions of the CNS role to health care systems across Canada.

In 2017, the Premier in New Brunswick presented the "New Brunswick Family Plan" of health care reform, featuring improved access to primary care through a shift in focus from hospital-based care to care in the community. The Family Plan features seven pillars: improving access to primary and acute care, promoting wellness, supporting those with mental illness health challenges, fostering healthy aging and support for seniors, advancing women's equality, reducing poverty, and providing support for persons living

with a disability (PNB, 2017). Most recently in 2019, the CNA published the Advanced Practice Nursing: A Pan Canadian Framework document that highlights the need for systems level change to fully integrate and support APN practice, including the CNS role (CNA, 2019).

In light of recent national activity regarding the CNS role and calls for health care reform in New Brunswick, I believe this presents a timely opportunity to renew discussion regarding the CNS role in New Brunswick. I invite you as a key stakeholder in the CNS role to participate in this research project.

Project Design: The design of this study includes principles of Exploratory-Descriptive and Community-Based Collaborative Action Research. Consistent with this design, data collecting, processing and analysis will employ research methods from Deliberative Dialogue (Knowledge-to-Action) and Modified Delphi techniques.

Procedure and Estimated Time Commitment: This project will consist of three phases (Delphi Rounds 1, 2, 3). The first Delphi Round consists of a group meeting of 8-10 key CNS stakeholders lasting approximately 1 ½ hours. This meeting will be organized into two parts: Part 1 will consist of introductions, description of study, and discussion/signing of Informed Letters of Consent. The second half will consist of a tape-recorded team building discussion and distribution of preparatory readings for Delphi Round 2. K Sheppard as the community advisor (NANB) will act as an advisor/facilitator during this stakeholder meeting.

Delphi Round 2 includes a 2 part (8 pg.) 36 question web-based questionnaire sent to participants by the student researcher. Completion of the questionnaire is estimated to require (30-45 minutes), depending on the amount of time participants take to pause and consult readings they've completed. Part 1 (pg. 1-6) of this questionnaire focuses on quantitative and qualitative responses to 6 brief pre-selected required readings regarding the CNS role. Part 2 (Pg. 7-8) of the questionnaire focuses on stakeholder opinions and their qualitative and quantitative responses regarding national advocacy and the CNS role in New Brunswick. Part 2 of the questionnaire also focuses on stakeholder opinions and their qualitative and quantitative responses regarding knowledge-to-action commitments for improved integration of the CNS role in New Brunswick.

Delphi Round 3 will involve a final meeting with all participants and will include a presentation from Round 1, 2. This meeting will last approximately 3 ½ hours, providing an opportunity for participants to engage a deliberative dialogue regarding the CNS role in NB. This discussion will focus on the findings of the project and participants' perceptions concerning the CNS role in health care reform in New Brunswick. It will also focus on participants' perceptions about the desirability and feasibility of professional advocacy for better integrating the CNS role in NB. Once again K Sheppard as community advisor (NANB) will act as advisor/facilitator of this final group meeting.

Rights: Human rights as they apply to health services research will be protected including the right to self-determination, autonomy, and respect. You will have the right to participate, ask questions, express opinions, and reserve opinion/information as you

see fit without fear of professional consequences. You will have the right to withdraw from this project at anytime without fear of coercion.

Risks, Confidentiality, Quasi-Anonymity and Non-Disclosure: This project will require participation in group discussions with 8-10 stakeholders and 2-3 members of the research team. It will also involve individual completion of a web-based questionnaire. Research ethics related to confidentiality, privacy, quasi-anonymity, and non-disclosure are relevant and have been considered in terms of your involvement in this project.

Ensuring complete anonymity between and among participants is not possible during this study. All participants will be identified and known to each other during group meetings, with opinions openly shared and associations openly referenced during group discussion. The small sample size of 8-10 participants is ideal for discussion /consensus building but it also poses challenges in terms of guaranteeing anonymity of qualitative and quantitative responses. A form of "quasi-anonymity" will be adopted in this project-in attempts to protect the identity of participants. In analyzing the completed web-based questionnaires and in identifying themes from group discussion, the research team will treat each participant's responses by associating them with coded participant identification numbers. The association between participants and their coded identification numbers will be known only by the student researcher and the faculty supervisor. This information will be protected using a password protected document.

Quantitative and qualitative findings will be reported in aggregate analysis. For quantitative findings, frequencies, measures of central tendency and some correlation among findings will be used to report aggregate results from the questionnaire. In terms of qualitative data, when excerpted narrative is used to describe or explain a qualitative theme or finding-that text will be presented using numerical identification codes for members' identity.

Even given these measures to protect the identity of members, participants will likely be known to each other and their engagement during the group meetings makes it impossible to ensure complete anonymity of responses. This means that while every attempt will be made during data analysis to code members' responses as anonymous, participants themselves may claim authorship of their responses. This dimension of the project can be described as "quasi-anonymity" and it will be an ongoing aspect of the project. In the final and public report of this project, findings will be presented in aggregate form-without disclosing the personal identity of participants and without associating individual findings with the individual members' professional roles or organizational representation.

This project also necessarily involves moderate risks in terms of confidentiality. Members and their views will be known within the participant group. In addition, because all participants are selected as experts on this topic, they and their views may be known to each other with previous working relationships. The research team will attempt to keep individual responses confidential by assigning numbers as participant identifiers. Data will be presented in aggregate form whenever possible. All digital recordings of

group meetings will be kept in password protected digital files with access limited to the student researcher and the faculty advisor. Once transcribed and coded, access to the data for analysis will be limited to the research team listed above. All other documents containing participant identifying information (e.g. signed Letters of Informed Consent) will be stored in a locked location separate from all data collected during this project. All digital recordings of group meetings will be deleted upon completion of the successful defence of this report.

In light of the preceding challenges in confidentiality and anonymity, additional measures have been created to protect participants. To create a safe nurturing environment conducive to free exchange of ideas and expression of opinions it will be necessary to agree (in writing) to non-disclosure, of shared-information outside of the participant group (or others who have agreed to non-disclosure, e.g. the research team). Also, K Sheppard as community advisor (NANB) has signed, as part of a Memorandum of Understanding between University of New Brunswick and NANB, a Scholarly Work Project Agreement that includes confidentiality and non-disclosure clauses and agrees not to share confidential information gained from data collecting, or identities of participants outside of the participant group.

Non-Disclosure
This agreement concerning non-disclosure of information shared during the project is not a ++separate document but found within the Letter of Informed Consent, to be signed by each participant and by the research team. It is my hope that a non-disclosure agreement will contribute to each participant's opinion holding equal weight without fear of professional consequences from potentially expressing differing opinions than their employer.

Privacy as it relates to the participation in a web-based questionnaire will be a risk. Web based questionnaires (although efficient, time saving and provide opportunities for ongoing data analysis), present risks where embedded data such as IP addresses, operating systems, and individual response times can potentially be linked to participants (Helms et al., 2017).

There are no anticipated physical risks associated with participation in this project.

Benefits: Potential benefits of participation in this study will be limited to increased professional knowledge of the CNS role and the opportunity to contribute professional opinion influencing decision-making regarding this advanced practice nursing role in NB. There will be no monetary compensation for participation beyond refreshments provided at group meetings.

Flesch-Kinkaid readability score-16.4
This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2019-011.

Appendix D: Letter of Informed Consent

I understand that I am being asked to participate in a research study involving Anna McQueen, Master of Nursing Student at the University of New Brunswick (UNB).

Title of Project

Envisioning an Integrated Clinical Nurse Specialist Role in Primary Care and Primary Health Care for Health Care Reform in New Brunswick: A Modified Delphi Study of Key Stakeholder's Perspectives

Purpose of Study

The purpose of this study is two-fold; firstly, to explore and describe the current status of evolution of the Clinical Nurse Specialist (CNS) role in New Brunswick and secondly, to explore the potential for renewed stakeholder dialogue regarding the future of the CNS role in NB.

Duration of Study

I understand I will be asked to participate in three "rounds" of this study occurring over a three-month period. In the first "round" I will be asked to participate in a group semi-structured interview lasting approximately 1 ½ hours. In the second round I will be asked to read 6 brief pre-selected articles in preparation to participate in an online questionnaire containing approximately 36 questions (open-ended and nominal ranking style questions). This questionnaire will require approximately 30-40 minutes to complete. In the final "round" of this study I will be invited to attend a presentation of findings-to-date followed by participation in group discussion containing semi-structured interview questions. This final group meeting and third round of data collecting will last approximately 3 ½ hours.

Data Collecting and Processing

I understand that qualitative and quantitative data will be collected by digital recordings during the two group meetings and from the on-line questionnaire. All interviews will be transcribed verbatim by the student researcher, coded and analyzed for themes by the research team. Participation in the research team will involve Dr. J Thompson Professor, FON GAU (Report Supervisor), Dr. K Wilson, Associate Vice President Academic, Associate Professor FON GAU and will include K Sheppard Senior Advisor Nursing Education and Practice (NANB Community Partner Advisor). K Sheppard as community advisor (NANB) has signed, as part of a Memorandum of Understanding between University of New Brunswick and NANB, a Scholarly Work Project Agreement that includes confidentiality and non-disclosure clauses and agrees not to share confidential information gained from data collecting, or identities of participants outside of the participant group.

Data collected during group meetings and through the on-line questionnaire will be analyzed and stored electronically. Aggregate data will be presented when possible to provide "quasi-anonymity" of group discussions, and questionnaire responses. All digital recordings of group interviews will be stored in a password protected electronic file. All

other documents containing participant identifying information (e.g. signed Letters of Informed Consent) will be stored in a locked location separate from all data collected during this project. The digital recordings of interviews will be deleted upon completion of a successful defence of this report. The findings of this project will be shared with NANB as a community partner and published and stored as a completed scholarly report with UNB. A final summary of findings will be mailed electronically to all group participants and the published report will be publicly available to all participants.

Potential Benefits/Risks and Compensation for Participation

I understand that a potential benefit for participating in this study will be increased awareness of the CNS role potential in NB as well as an opportunity to participate and influence decision-making regarding the role of the CNS in NB. I understand that potential risks for participation in this study may be associated with difference of professional opinions presented during group discussions. I understand there will be no compensation for participation in this study beyond receiving refreshments during the group meetings.

Rights of Participants

I understand that I am volunteering to participate in this study and I have the right to withdraw at anytime during this study without fear of coercion. I understand I have the right to reserve or withhold my participation/opinions or information as I choose.

Confidentiality, Quasi-Anonymity and Non-Disclosure

I understand that the limits to confidentiality and quasi-anonymity as they have been explained to me in the Introduction/Invitation to Participate letter and that my individual responses may be recognized among group participants. I understand and agree to non-disclosure as explained to me in the introductory/Invitation to Participate Letter.

Questions and Contact Information

I understand that if I have questions or concerns at any time during the research process, I may contact the researcher Anna McQueen at (506) 478 3759 or e-mail anna.mcqueen@unb.ca. If I have further questions or concerns, I may contact Dr. Jan Thompson, thesis supervisor at jthomps@unb.ca. or Dr. Kathryn Weaver, Director of Graduate Studies GAU FON at kweaver@unb.ca.

Signature of Participant_____ Date _____

Telephone: (work) _____ (cell): _____

E-Mail address: _____

Signature of Researcher _____ Date _____

Flesch-Kinkaid readability score-14.1
This project has been reviewed by the Research Ethics Board of the University of New Brunswick and is on file as REB 2019-011.

Appendix E: Questionnaire

1. The CNA Pan Canadian Framework of CNS Core Competencies (2014) provides an acceptable, relevant and effectively updated model of CNS competencies.
Comments:

Remaining Characters: 500

2. The CNA Pan Canadian Framework of CNS Core Competencies (2014) provides an acceptable, relevant and effectively updated model of CNS competencies.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: The Framework is a desirable model for CNS practice in NB:	○	○	○	○
Feasibility Assessment: The Framework would be a feasible model for CNS practice in NB:	○	○	○	○

3. The CNA Pan Canadian Framework of CNS Core Competencies (2014) can be used to strengthen and support CNS practice in New Brunswick.
Comments:

Remaining Characters: 500

4. The CNA Pan Canadian Framework of CNS Core Competencies (2014) can be used to strengthen and support CNS practice in New Brunswick.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using the Framework to strengthen and support CNS practice in NB is:	○	○	○	○
Feasibility Assessment: Using the Framework to strengthen and support CNS practice in NB is:	○	○	○	○

Page 2: PNB New Brunswick Family Plan (2017)

Page 2 of 8

5. CNS contributions can strengthen and support primary care and primary health care in NB under the PNB New Brunswick Family Plan (2017).
Comments:

Remaining Characters: 500

6. CNS contributions can strengthen and support primary care and primary health care in NB under the PNB New Brunswick Family Plan (2017).

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Integrating/strengthening CNS Practice in the context of the NB Family Plan is:	○	○	○	○
Feasibility Assessment: Integrating/strengthening CNS Practice in the context of the NB Family Plan is:	○	○	○	○

Page 3: CNA Clinical Nurse Specialist Position Statement (2016)

Page 3 of 8

7. The CNA Clinical Nurse Specialist Position Statement (2016) is an effective statement of professional advocacy.
Comments:

Remaining Characters: 500

8. The CNA Clinical Nurse Specialist Position Statement (2016) is an effective statement of professional advocacy.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: The CNA Position Statement provides a desirable update of previous endorsement for CNS advanced practice:	○	○	○	○
Feasibility Assessment: Using the CNA Position Statement is feasible for integrating/strengthening CNS practice in NB:	○	○	○	○

9. The CNA Clinical Nurse Specialist Position Statement (2016) can be used collaboratively to advocate for a stronger CNS presence in New Brunswick.
Comments:

Remaining Characters: 500

10. The CNA Clinical Nurse Specialist Position Statement (2016) can be used collaboratively to advocate for a stronger CNS presence in New Brunswick.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using the CNA Position Statement to integrate/strengthen CNS Practice in NB is:	○	○	○	○
Feasibility Assessment: Using the CNA Position Statement to integrate/strengthen CNS Practice in NB is:	○	○	○	○

11. The discussion by Charbachi et al (2012) Articulating the role of the CNS in New Brunswick invites professional advocacy and leadership to strengthen and integrate the role of the CNS in New Brunswick.
Comments:

Remaining Characters: 500

12. The discussion by Charbachi et al (2012) Articulating the role of the CNS in New Brunswick invites professional advocacy and leadership to strengthen and integrate the role of the CNS in New Brunswick.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: The invitation for nursing stakeholders to engage collaboratively to strengthen and integrate CNS Practice in NB is:	○	○	○	○
Feasibility Assessment: Using this and other relevant information, the opportunity for nursing stakeholders to engage to strengthen and integrate CNS Practice in NB is:	○	○	○	○

13. The CNS role components (expert clinical practice, system level leadership, advancing/advocating to support nursing practice, research and evaluation) are integral to reforming the Primary Health Care System in NB.
Comments:

Remaining Characters: 500

14. The CNS role components (expert clinical practice, system level leadership, advancing/advocating to support nursing practice, research and evaluation) are integral to reforming the Primary Health Care System in NB

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: In reforming the NB Primary Health Care System, these contributions are:	○	○	○	○
Feasibility Assessment: Integrating and strengthening these CNS contributions in the context of reform is:	○	○	○	○

15. The CNA 2019 APN Framework document lists numerous strategies for successful implementation, integration and sustainability of APN roles in the practice setting.
Comments:

Remaining Characters: 500

16. The CNA 2019 APN Framework document lists numerous strategies for successful implementation, integration and sustainability of APN roles in the practice setting

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using this 2019 APN Framework would be helpful for the implementation and integration of CNS roles in NB:	○	○	○	○
Feasibility Assessment: Using this 2019 APN Framework would be helpful for the implementation and integration of CNS roles in NB:	○	○	○	○

17. The CNA 2019 APN Framework emphasizes the importance of addressing whole systems change to fully integrate/evaluate APN roles. How do you perceive the relationship between whole systems change and the full integration/evaluation of the CNS role in NB?
Comments:

Remaining Characters: 500

18. The CNA 2019 APN Framework emphasizes the importance of addressing whole systems change to fully integrate/evaluate APN roles. How do you perceive the relationship between whole systems change and the full integration/evaluation of the CNS role in NB?

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Addressing whole systems change is essential to realize a sustainable full integration of the CNS role in NB:	○	○	○	○
Feasibility Assessment: Addressing whole systems change is essential to realize a sustainable full integration of the CNS role in NB:	○	○	○	○

19. The CNA 2019 APN Framework highlights the Evaluation Framework Matrix (figure 1) as an APN evaluation model that represents complex systems change. How do you envision this model guiding whole systems change to fully integrate the CNS role in NB?
Comments:

Remaining Characters: 500

20. The CNA 2019 APN Framework highlights the Evaluation Framework Matrix (figure 1) as an APN evaluation model that represents complex systems change. How do you envision this model guiding whole systems change to fully integrate the CNS role in NB?

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using the Evaluation Framework Matrix could be helpful in guiding systems level change and CNS role integration in NB:	○	○	○	○
Feasibility Assessment: Using the Evaluation Framework Matrix could be helpful in guiding systems level change and CNS role integration in NB:	○	○	○	○

21. The CNA Pan Canadian Core Competencies (2014) is currently used to advocate for the CNS role in New Brunswick.

Remaining Characters: 500

22. The CNA Pan Canadian Core Competencies (2014) is currently used to advocate for the CNS role in New Brunswick.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using the CNA competencies to advocate for the CNS role in NB is:	○	○	○	○
Feasibility Assessment: Using the CNA Competencies to advocate for the CNS role in NB is:	○	○	○	○

23. The CNS role is evaluated in NB based on CNA (2014) Pan Canadian Core Competencies.

Remaining Characters: 500

24. The CNS role is evaluated in NB based on CNA (2014) Pan Canadian Core Competencies.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Using these competencies to evaluate system level contributions of CNSs and their performance in NB is:	○	○	○	○
Feasibility Assessment: Integrating and strengthening the evaluation of CNS contributions in NB is:	○	○	○	○

25. In light of CNS role components (expert clinical practice, system level leadership, advancing/advocating to support nursing practice, research and evaluation), the CNS can make important contributions to the development of health policy and health human resource planning in NB.

Remaining Characters: 500

26. In light of CNS role components (expert clinical practice, system level leadership, advancing/advocating to support nursing practice, research and evaluation), the CNS can make important contributions to the development of health policy and health human resource planning in NB.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: In providing leadership and evidence of outcomes related to expert clinical practice, CNSs can make contributions to healthy policy development that are:	○	○	○	○
Feasibility Assessment: Integrating and strengthening these CNS competencies in the context of healthy policy development and human resource planning is:	○	○	○	○

27. In light of the competencies for CNS practice, the CNS role requires masters level (or doctoral level) graduate education.

Remaining Characters: 500

28. In light of the competencies for CNS practice, the CNS role requires masters level (or doctoral level) graduate education.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment: Strengthening the collaboration, integration/intersections of graduate education, research and CNS practice in NB is:	○	○	○	○
Feasibility Assessment: Strengthening these practice, education, research intersections in New Brunswick is:	○	○	○	○

29. The CNS role would benefit from the formation of a special interest/advocacy group within NANB – working collaboratively with the Canadian Association of Clinical Nurse Specialists.

Remaining Characters: 500

30. The CNS role would benefit from the formation of a special interest/advocacy group within NANB – working collaboratively with the Canadian Association of Clinical Nurse Specialists.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment:	○	○	○	○
Feasibility Assessment:	○	○	○	○

31. The CNS role would benefit from some form of title protection in NB (e.g. certification).

Remaining Characters: 500

32. The CNS role would benefit from some form of title protection in NB (e.g. certification).

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment:	○	○	○	○
Feasibility Assessment:	○	○	○	○

33. The CNS role would benefit from some form of special designation within NBNU.

Remaining Characters: 500

34. The CNS role would benefit from some form of special designation within NBNU.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment:	○	○	○	○
Feasibility Assessment:	○	○	○	○

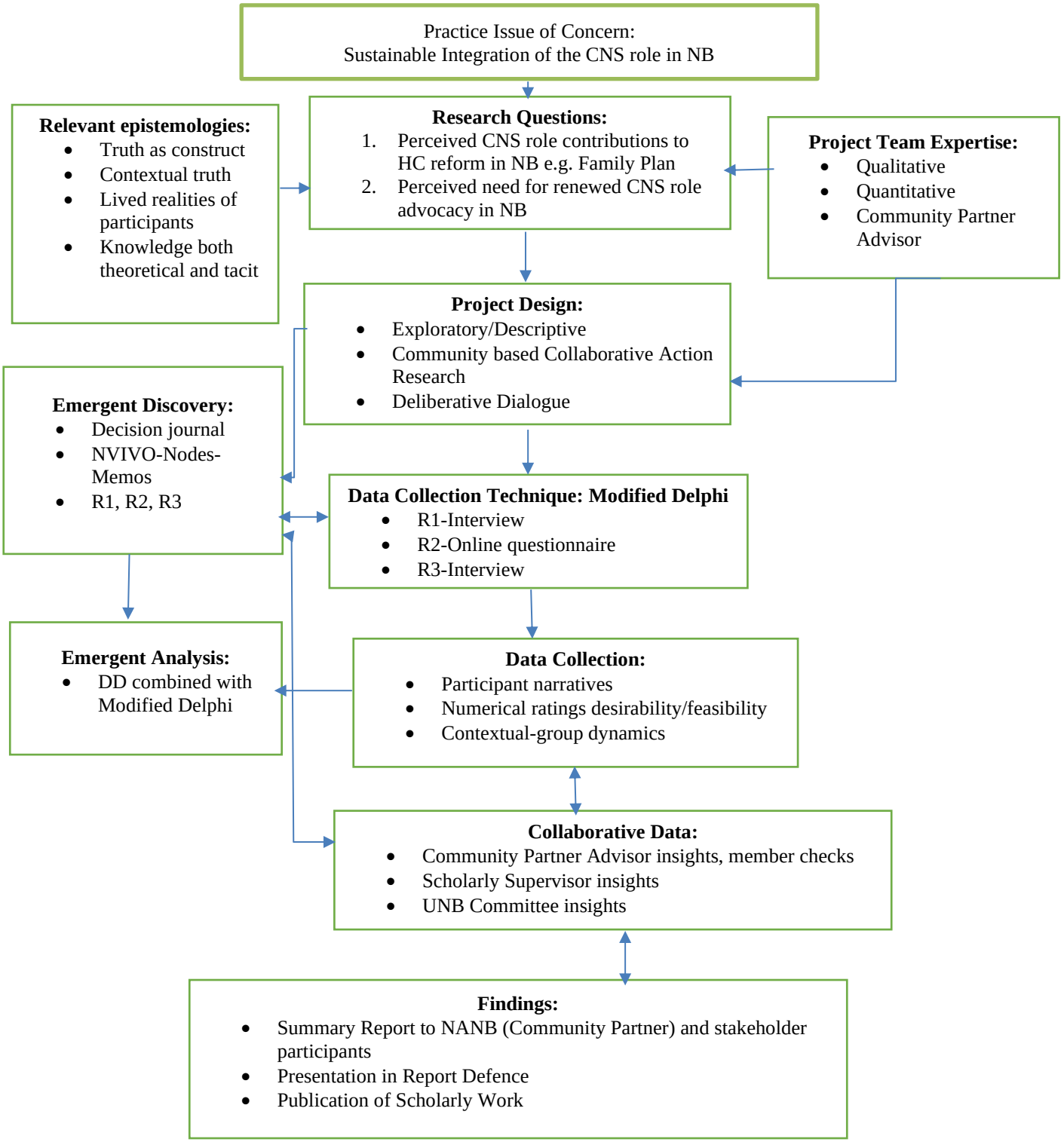
35. The CNS role would benefit from renewed activity (voice and professional advocacy) within and from the NB CNS Advisory committee.

Remaining Characters: 500

36. The CNS role would benefit from renewed activity (voice and professional advocacy) within and from the NB CNS Advisory committee.

	4 Very desirable/Feasible	3 Desirable/Feasible	2 Undesirable/Unfeasible	1 Very Undesirable/Very Unfeasible
Desirability assessment:	○	○	○	○
Feasibility Assessment:	○	○	○	○

Appendix F: Analytical Pathway



Curriculum Vitae

Candidate full name: Anna Marie McQueen RN BN

Universities attended: University of New Brunswick, 1997-2001 - Bachelor of Nursing

Publications: TBD

Conference Presentations: Poster presentation accepted for International Council of Nurses Conference, Halifax NS 2021

Current employment: Currently employed as perioperative nurse, Horizon Health Dr. Everett Chalmers Regional Hospital