An Underutilized Resource: Investigating the Role Implementation of Nurse Practitioners in BC’s Primary Care System

by
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B.A., Simon Fraser University, 2012

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Abstract

Nurse practitioners (NP) are registered nurses who hold a Master’s degree in nursing and are trained to practise autonomously within a collaborative healthcare system. Extensive evidence indicates that NPs provide high-quality, patient-centred care; as a result, the BC Ministry of Health introduced the NP role in 2005 to help the province meet a growing demand for primary care. However, despite some targeted initiatives, NPs continue to be underutilized. Interviews with NPs and key stakeholders, coupled with a thorough literature review, are used to identify the barriers preventing NP role implementation in BC’s primary care system. While many barriers were identified, the absence of an appropriate funding mechanism was found to be the most significant barrier to NP role implementation, ultimately limiting their utilization in the primary care system. Policy recommendations centre on developing a sustainable funding model that allows NPs to practise autonomously in multiple primary care settings.

Keywords: nurse practitioners; primary care; primary care reform; health policy; British Columbia
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<th>Description</th>
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<tr>
<td>AANP</td>
<td>American Association of Nurse Practitioners</td>
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<tr>
<td>AMA</td>
<td>American Medical Association</td>
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<tr>
<td>APN</td>
<td>Advanced practice nurse</td>
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<tr>
<td>BCNPA</td>
<td>British Columbia Nurse Practitioner Association</td>
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<tr>
<td>CHC</td>
<td>Community Health Centres</td>
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<tr>
<td>CIHI</td>
<td>Canadian Institute for Health Information</td>
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<tr>
<td>CNA</td>
<td>Canadian Nurses Association</td>
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<tr>
<td>CRNABC</td>
<td>College of Registered Nurses of British Columbia</td>
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<tr>
<td>FFS</td>
<td>Fee-for-service</td>
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<tr>
<td>FHT</td>
<td>Family Health Teams</td>
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<td>GPSC</td>
<td>General Practice Services Committee</td>
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<td>MBS</td>
<td>Medicare Benefit Schedule</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MoHLTC</td>
<td>Ministry of Health and Long Term Care</td>
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<tr>
<td>MSP</td>
<td>Medical services plan</td>
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<tr>
<td>NP</td>
<td>Nurse practitioner</td>
</tr>
<tr>
<td>NP4BC</td>
<td>Nurse Practitioners for British Columbia initiative</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OMA</td>
<td>Ontario Medical Association</td>
</tr>
<tr>
<td>PBS</td>
<td>Pharmaceuticals Benefit Scheme</td>
</tr>
<tr>
<td>PEPPA</td>
<td>Participatory, evidence-based, patient-centred process for advanced practice nurse role development, implementation, and evaluation</td>
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<tr>
<td>PHCTF</td>
<td>Primary Health Care Transition Fund</td>
</tr>
<tr>
<td>PMS</td>
<td>Personal Medical Service</td>
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<tr>
<td>RN</td>
<td>Registered nurse</td>
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Executive Summary

Strengthening Canada’s primary care system has been on the national agenda since the 1990s and both national and provincial health commissions have advocated for primary care reform. In 2005, the BC Ministry of Health (re)introduced the nurse practitioner (NP) role to help meet provincial demand for primary care, particularly for patients without access to a family doctor. However, NPs are underutilized in BC despite targeted initiatives, including the $22.2 million NP4BC program from 2012 to 2015. In 2015, the Ministry of Health released a strategic policy framework that indicates the ministry’s strategic direction to transition primary care into a team-based environment that emphasizes patient-centred care; this signals a policy window to explore the NP role as an integral feature of an interdisciplinary primary care system.

A review of the literature, an analysis of four jurisdictions where NPs practise, and interviews with experts familiar with the NP discussion in BC illustrates five key barriers to NP role implementation in primary care: a limited scope-of-practice; a lack of public awareness of the role; a lack of administrative and professional support; resistance from the medical profession; and inappropriate funding mechanisms. In BC, it was identified that NP role implementation remains limited due to a gap between the existing funding model for NPs and the delivery of primary care. The analysis in this capstone focuses on a sustainable funding mechanism for the NP role. This first option analyzed is the status quo, which fits the ministry’s provincial health budget but does facilitate the NP role. The second option sees health authority affiliated NPs, which builds on the success of NP4BC and allows primary care practices to partner with health authorities to work with NPs. The third option sees provincially funded salaries for NPs, which would have primary care practices applying directly to the ministry for funding for a NP position. The fourth option is to allow NPs to bill MSP, although the remuneration model is not specified in this analysis.

This capstone recommends that the Ministry of Health allow NPs to bill MSP while also establishing provincially funded salaried positions for NPs. This allows practices that want to employ a NP but whose patients may not be well served by FFS practitioners to apply to the ministry for funding to create a NP position, while other practices can simply
hire NPs that bill to MSP. The variety of primary care settings and heterogeneity of patient needs means that a one-size-fits-all approach would be limiting for NPs; Implementing both funding mechanisms allows NPs to choose their preferred funding mechanism without restricting their autonomy. This capstone also has two additional recommendations that address key barriers hindering NP role implementation in BC, as identified in the literature and through stakeholder interviews. First, it is recommended that the General Practice Services Committee expand membership to include other healthcare professionals. Second, it is recommended that the Ministry of Health, in collaboration with the three universities that have a NP graduate program, develop mechanisms that will more effectively support NPs as they transition into their roles.
Chapter 1.

Introduction

The Canadian healthcare system is straining to keep up with an aging population and increasing incidence of chronic health conditions (Delamaire & Lafortune, 2010; Archibald & Fraser, 2013). High demand for health care services coupled with budgetary constraints has forced policy makers to search for innovative solutions to increase the efficiency of the healthcare system. Advanced practice nurses (APNs) have been introduced to healthcare systems around the world as a means to address physician shortages, reduce wait times, improve quality of care, and reduce healthcare expenditures (Maier, 2015; DiCenso et al., 2010; Archibald & Fraser, 2013). Nurse practitioners (NPs), one type of APN, are registered nurses (RNs) who hold a Master’s degree in nursing and have extensive nursing experience. Many high-income countries have been utilizing NPs to address gaps in their healthcare systems.

NPs were first introduced in Canada in the 1960s as a solution to the undersupply of physicians willing to practise in rural communities (Delamaire & Lafortune, 2010; Archibald & Fraser, 2013). NPs at this time had significant autonomy and a broad scope-of-practice, which enabled them to meet the needs of these underserved communities (Archibald & Fraser, 2013). Initiatives to utilize NPs in primary care delivery continued for two decades until the 1980s when the focus shifted towards increasing the number of doctors. Archibald and Fraser (2013) cite “[an] abundance of physicians, a lack of public awareness of the NP role, and an absence of enabling legislation” (p. 270) as key reasons for the decline in NP programs in the 1980s. By the late 1990s, the NP role began to resurface in some provinces due to increasing demand for healthcare services but it was not until 2004 that a “pan-Canadian framework” was developed for the integration of NPs (Canadian Nurses Association [CNA], 2009). This framework, the Canadian Nurse
Practitioner Initiative, developed key recommendations for the role implementation of NPs which has facilitated the utilization of NPs in both primary and acute health care across Canada. Today, NPs in Canada are autonomous health care professionals with a scope-of-practice that allows them to “order and interpret diagnostic tests; prescribe pharmaceuticals, medical devices and other therapies; and perform procedures” (Canadian Institute for Health Information [CIHI], 2015b). NPs are currently regulated and practising in all 13 provinces and territories, but their scope-of-practice does vary between provinces. This is because provinces are responsible for regulating the specific scopes-of-practice for NPs. While the total number of NPs in Canada has increased in the past decade, they make up just 1.35 percent of all registered nurses (CIHI, 2015b) and are only one per 13,727 population (CNA, 2012). Additionally, the utilization of NPs varies sharply between provinces.

Strengthening Canada’s primary care system has been on the national agenda since the 1990s and has been supported unanimously by the First Ministers in the 2000, 2003, and 2004 health care agreements (Wong & Farrally, 2013). This transformation was facilitated by federal transfers, beginning with an $800 million Primary Health Care Transition Fund (PHCTF) in 2000. The PHCTF pushed provinces to make systemic changes to their primary care systems, which included alternative physician remuneration schemes and new models of primary care provision, specifically increasing the number of interprofessional care teams and utilizing NPs. BC has worked towards integrating NPs into our healthcare system since 2005, with the goal of “increasing access to healthcare, expanding healthcare options, and filling gaps in the provincial healthcare system” (Sangster-Gormley et al., 2015, p. 7). The province has established Master’s level NP training programs in three universities, provided health authorities with funding to hire more NPs, and increased NPs’ scope-of-practice (Wong & Farrally, 2013). Nevertheless, BC’s primary care system continues to underutilize NPs.

In 2015, the BC Ministry of Health (MoH) released a strategic policy framework for primary and community care in BC (MoH, 2015). This policy paper outlines the ministry’s strategic direction to transition primary care into a team-based environment that

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1 This initiative was funded through the Primary Health Care Transition Fund from the federal government.
emphasizes patient-centred care. This capstone aims to contribute to the current primary care discussion in BC by highlighting the NP role as an integral feature of an interdisciplinary primary care system. I begin with a brief overview of the Canadian healthcare system and primary care reform efforts across the country in Chapters 2 and 3. In Chapter 4, I identify the policy problem: NPs were introduced to the BC healthcare system in 2005 but the profession continues to experience barriers that restrict role implementation in primary care. ‘Role implementation’ is a commonly used term in nursing literature that refers to the processes for establishing new nursing positions (Sangster-Gormley, Martin-Misener, Downe-Wamboldt, & DiCenso, 2011). This capstone defines role implementation as the full integration of NPs into the healthcare system where they are able to practise to their full scope-of-practice. Chapter 5 outlines my methodology in addressing this policy problem. Chapter 6 provides a summary of the most common barriers and facilitators to NP role implementation, as indicated by my literature review and stakeholder interview results. In Chapters 7 to 9, I identify and analyze four policy options to fund the NP role, which is the most significant barrier hindering optimal NP utilization in BC. Following this analysis, I provide a policy recommendation that addresses this barrier to NP role implementation and is expected to facilitate the utilization of NPs in primary care.
Chapter 2.

The Canadian Healthcare System

The Canadian healthcare system is built on the principles of comprehensiveness, universality, portability, accessibility, and public administration. These five tenets, which aim to establish uniformity across provincial health systems, were cemented into history with the 1984 *Canada Health Act*. Section 92 of the 1867 *Constitution Act* gives provinces the jurisdictional authority over the delivery of most health care services, which has resulted in “thirteen provincial and territorial [healthcare] systems that operate within a national legislative framework” (Hutchison, Abelson, & Lavis, 2001, p. 257). Medicare in Canada is a single-payer, public insurance system funded through general taxation. The provincial government covers all ‘medically necessary care’, but this refers almost exclusively to primary care and hospital services. Furthermore, the idea of Canada’s public, universal system refers exclusively to the financing of health care. Most of Canada’s health care services, including general practitioners and physician specialists, are private practitioners who contract their services to the provincial health ministry or the regional health authority. Because of the separation between the financing and provision of health care services, physicians have little economic incentive to limit demand for their service or to efficiently allocate provincial healthcare funds.

Today, our healthcare system can be considered “average” on a number of indicators. Canada ranks in the middle third in terms of life expectancy at birth (Organisation for Economic Co-operation and Development [OECD], 2015) and our total health expenditures (public plus private) sit only slightly below the average of other high-income countries (Figure 2.1). Broad measures of population health status, including life expectancy, are influenced by health spending but also reflect many other factors, such as the social determinants of health. Higher health spending is generally associated with higher life expectancy; however, this relationship becomes weaker in countries with high levels of spending indicating that the marginal benefit of incremental health spending decreases as spending level increases (OECD, 2015).
Figure 2.1. Health Expenditures Across 18 OECD Countries, 2015

Source: OECD Health Statistics 2015

Total health expenditure in Canada has risen drastically since the early days of Medicare (Figure 2.2), similar to other developed countries around the world. Canada scores well on a number of health indicators, including high life expectancy for both men and women at 65, which may be related not only to the quality of our healthcare system but also to our relatively low rates of smoking and alcohol consumption (OECD, 2015). The exception to this otherwise healthy image of Canadians is our adult obesity rate, where Canada ranks 29th out of 34 countries (OECD, 2015).
Healthcare systems of high-income countries, including Canada, are now facing an aging population, the increasing incidence of chronic health conditions, and the prevalence of multiple morbidities (Hansen, Groenewegen, Boerma, & Kringos, 2015). Presently, healthcare costs make up 40 to 45 percent of all provincial expenditures (Figure 2.3). While federal funding remains a necessary facilitator for provinces to maintain adequate health services (O’Reilly, 2001), provinces finance roughly 80 percent of all healthcare spending from their own source-revenues (Ferguson, 2016).
One strategy to address the challenges facing a high-demand, high-cost healthcare system is strengthening primary care; access to comprehensive primary care systems that are patient-centred, coordinated across services, and provide a high continuity of care lead to improved health outcomes for both the general population and for individuals living with chronic health conditions and co-morbidities (Starfield, Shi, & Macinko, 2005; Hansen et al., 2015). The emphasis primary care places on preventative care and the early or regular management of health issues reduces hospitalization rates and ultimately decreases the total cost of health care (Starfield et al., 2005).

**Figure 2.3. Provincial Health Expenditures as a Share of Total Provincial Spending**

*Source: CIHI National Health Expenditure Database*
Chapter 3.

Primary Care in Canada

Starfield et al. (2005) describe primary care as consisting of four key features: first-contact access for health care needs; long-term patient-centred care; comprehensive care for the majority of health care needs; and coordinated care with other health institutions. Evidence from the US indicates that states with a higher ratio of primary care physicians to the general population had better health outcomes, including lower rates of all causes of mortality, lower rates of infant mortality, higher birth rates, higher self-reported health, an increase in life span, and lower total costs of health services (Starfield et al., 2005). These outcomes were found even after controlling for socioeconomic and lifestyle factors, although the effect was greater in areas with higher income inequality (Starfield et al., 2005). In the UK, increasing the supply of general practitioners was “significantly associated with a decrease in hospital admission rates” (Starfield et al., 2005, p. 479) among people living with a chronic health condition. This is likely due to the fact that good primary care can prevent unnecessary demand for acute services by managing health issues before their escalation to requiring hospitalization. Given the effect primary care has on health outcomes, it is understandable why Starfield et al. (2005) describe primary care as “the cornerstone” (p. 457) of a healthcare system.

Despite the emphasis placed on primary care, Statistics Canada (2015) reports that 14.9 percent of Canadians do not have a regular medical doctor and over 10 percent of Canadians report having unmet health needs (Archibald & Fraser, 2013). Moreover, access to the healthcare system is unevenly distributed, with adults aged 20 to 34 being the least likely to have a regular medical doctor (Statistics Canada, 2015) and low-income individuals experiencing more barriers than the general population when trying to access care (Archibald and Fraser, 2013). Even among patients with a family physician, approximately 25 percent utilize walk-in clinics during the business hours of their regular physician (Howard et al., 2008). The prevalence of walk-in clinic use among Canadians is concerning because they “have been described as providing discontinuous care, neglecting preventative and mental health, and increasing duplication of services or repeat visits to the family physician for the same episode” (Howard et al., 2008, p. 77).
Both national and provincial health commissions have advocated for primary care reform in Canada and international evidence has demonstrated that our primary care system is falling behind on a number of indicators relative to other high-income countries (Hunter, Shortt, Walker, & Godwin, 2004; Levesque et al., 2012). Commonwealth Fund Health Surveys have found that Canadians experience a number of challenges related to primary care, including limited access to care, poor coordination of care, and a lack of patient-centred care (Mossialos, Wenzl, Osborn, & Anderson, 2015). Compared to other high-income countries, Canadians are the least able to access same-day or next-day appointments with a physician (Figure 3.1) and only 38 percent of Canadians are able to easily access after-hours care (Mossialos et al., 2015).

![Access to Short-Notice Doctor's Appointments, 2013](image)

**Figure 3.1. Access to Same-Day or Next-Day Physician Appointment, 2013**

*Source: 2013 Commonwealth Fund International Health Policy Survey*

The CIHI (2009) reports that of the 54 percent of Canadian adults who require routine and ongoing care, 13 percent have experienced difficulties accessing care within the past year. Additionally, for adults who have required immediate care for a minor health problem in the past year, 21 percent have experienced difficulties accessing care (CIHI, 2009). The most cited reasons for not being able to access needed care includes: waiting too long to get an appointment, difficulty getting an appointment, difficulty contacting a physician, and waiting too long to see a physician (CIHI, 2009). Individuals who are unable to access primary care often move to the acute care system, which places an unnecessary burden
on our hospitals and leads to an inefficient allocation of health resources. Compared to
other high-income countries, Canadians “are the most likely to have gone to a hospital
[emergency department] in the past two years, to have made multiple visits, and to say
that they went to the [emergency department] for care their doctor could have provided if
available” (DiCenso et al., 2010, p. 241).

Hutchison, Levesque, Strumpf, and Coyle (2011) describe Canada’s primary care
reform during the 1980s and 1990s as efforts filled with “false starts, myriad small-scale
pilot and demonstration projects, futile advocacy of fundamental [system wide] change,
and failure to embrace the alternative strategy of progressive incremental change” (p.
259). While other high-income countries have made systemic-level changes to their
primary care, Canada’s stagnation has resulted in poor access and quality indicators.
Strengthening primary care has been viewed as a “strategy to respond to demographic
and financial challenges to [healthcare] systems” (Hansen et al., 2015, p. 1531). The early
2000s presented a new policy environment for primary care reform, and the federal Health
Transition Funds were viewed as facilitators that encouraged provincial innovation
(Hutchison et al., 2011; Levesque et al., 2012).

### 3.1. Primary Care Reform Across Canada

In 2000, the First Ministers\(^2\) established the $800 million Primary Health Care
Transition Fund (PHCTF) to support pilot projects and research into primary care reform.
Following this, the 2003 First Ministers Health Accord created a $16 billion Health Reform
Fund “targeted to primary care, home care and catastrophic drug coverage” (Health
Canada, n.d.). Provinces have chosen to approach healthcare reforms slowly, relying on
voluntary agreements with major stakeholders, and choosing to negotiate for incremental
changes using incentives rather than through legislative direction (Levesque et al., 2012).
While initiatives varied across provinces, Hutchison et al. (2011) note a number of
recurring themes present across all primary care reform efforts, including: “improved
access to primary care services; better coordination and integration of care; expansion of
team-based approaches to clinical care; improved quality/appropriateness of care, with a

\(^2\) The Prime Minister and provincial premiers.
focus on prevention and the management of chronic and complex illness; greater emphasis on patient engagement/self-management and self-care; and the implementation and use of electronic medical records and information management systems” (p. 263).

Reform initiatives in BC and Saskatchewan focused on making changes within the traditional framework of a physician-centred model of care whereas efforts in Quebec, Ontario, and Alberta have instead worked towards team-based care models (Levesque et al., 2012; Hutchison et al., 2011). In 2004, the First Ministers set the objective that 50 percent of Canadians would have access to interprofessional care teams by 2011; this is because team-based care leads to “a broader range of services, more efficient resource utilization, better access to services, shorter wait times, better coordination of care, [and] more comprehensive and better health outcomes for patients” (DiCenso et al., 2010, p. 242). Nonetheless, in 2014, 32 percent of Canadian seniors reported experiencing care coordination issues, including having a test result or medical record not available at the time of their appointment, medical tests being duplicated or re-ordered, conflicting information being given from different doctors, or being referred to a doctor who was not aware of their care history (Mossialos et al., 2015).

Another outcome of primary care reform initiatives over the past decade has been a shift, in some provinces, in how physicians are paid. There are three main physician remuneration models: salary, fee-for-service (FFS), and capitation. The definition of each payment model is defined below by Blomqvist & Busby (2012):

*Under salary and short-term contracts, doctors are paid a fixed amount per unit of time, regardless of how many patients they see or what services they supply for each one. With fee for service, they are paid a fixed fee for each service they perform from among those on an approved list. Under capitation, a doctor is paid a fixed amount per month for each patient who has registered with his or her practice, regardless of what services the patient has received during the month.* (p. 2)

The Canadian National Physician Survey (2013) indicates that the 37.9 percent of physicians receive 90 percent or more of their income through FFS payments, although this does vary across provinces (Figure 3.2). Furthermore, 40.9 percent of physicians receive 90 percent or more of their income through a blended payment scheme, of which
FFS, salary, and sessional payments are the most common remuneration models (Figure 3.3).

**Figure 3.2** Physicians Primary Remuneration Method, 2013

*Source: National Physician Survey, 2013*

**Figure 3.3** Remuneration Breakdown for Physicians Receiving 90 Percent of their Income on a Blended Model 2013

*Source: National Physician Survey, 2013*
Physician remuneration methods are an important consideration because of their ability to facilitate or hinder reform initiatives. For example, the FFS model disincentivizes the utilization of other primary care professionals because physicians are paid for each service they perform and the inclusion of other care providers leads to a loss in income (Levesque et al., 2012; Delamaire & Lafontune, 2010). Alternatively, remuneration models that are less volume-driven, such as salary or capitation, may incentivize interprofessional collaboration in the delivery of care. FFS is the dominant remuneration model for physicians in Canada but primary care reform initiatives have resulted in a modest shift in physician remuneration models towards alternative arrangements, including capitation, salary, or blended payment schemes (Hutchison et al., 2011).

3.1.1. Primary Care Reform in BC

Primary care reform in BC has been accomplished largely through the creation of the General Practice Services Committee (GPSC) in 2002, a partnership between the Ministry of Health, Doctors of BC (formerly the BC Medical Association), and the Society of General Practitioners of BC. The GPSC was established following many years of conflict between Doctors of BC and the MoH, and it has created a collaborative forum through which decisions can be made regarding changes to health policy (Tregillus & Cavers, 2011; Wong & Farrally, 2013).

Under the GPSC, BC chose to reform primary care by trying to improve the decline in family practice by improving the existing primary care system through “gradual but transformative change from within” (Tregillus & Cavers, 2011, p. 2). Tregillus and Cavers (2011) note that while other provinces chose to introduce new models of multidisciplinary care delivery and alternative funding models, “[the] GPSC decided not to force doctors into team models or attempt to restructure the primary healthcare system” (p. 3), the key reason being the belief that “the doctor-patient dyad […] is the critical attribute of a successful primary healthcare system” (p. 3). Instead, BC’s reform efforts saw a shift from FFS remuneration to an enhanced FFS model, where physicians are offered targeted

3 Dr. Valerie Tregillus was a Co-Chair of the GPSC in the 2009/10 year.
4 Dr. William Cavers has been a Co-Chair of the GPSC since its inception until 2014/15 (2013?) and was the President of Doctors of BC in 2014/2015.
financial incentives to provide care that meets provincial health priorities, such as the management of care for diabetes and congestive heart disease or the provision of maternity care (Tregillus & Cavers, 2011). The Full Service Family Practice Incentive Program was launched in 2003 with a $10 million annual budget and has steadily added more initiatives, a broader scope, and a larger budget. The budget allocated to this initiative for the 2010/2011 year was $166.5 million with more than 15 different financial incentives being funded (Tregillus & Cavers, 2011).

Many have challenged Canada’s model of slow and voluntary reform, which has maintained a physician-centred structure of care with only limited multidisciplinary characteristics (Levesque et al., 2012). BC’s reforms may be the most physician-centred initiatives in the country; by choosing to focus only on “operational” instead of structural reforms (something that Tregillus and Cavers (2011) call a “unique” decision by BC), the national agenda was replaced with a physician-centred model in BC (Wong & Farrally, 2013). In 2015 the MoH released a strategic policy framework for primary care, which states, “[the] fragmentation of our current primary and community care system continues to be neither ideal for patient care nor cost effective” (MoH, 2015, p. 21). As such, the ministry is emphasizing the need for our primary care system to shift towards a more integrated system that utilizes a team-based approach to care.

3.2. The Case for Nurse Practitioners

Most provinces have recently attempted to increased the numbers and types of primary health care providers by expanding training programs for family physicians, midwives, and NPs (Hutchison et al., 2011). NPs in Canada hold a Masters Degree in Nursing and have at minimum two to five years of clinical experience as a RN (which requires a Bachelor of Science in Nursing). Delamaire and Lafortune (2010) distinguish between two broad types of activities that can be carried out by NPs: a substitution of tasks or a supplementation of tasks. A substitution of tasks occurs when responsibilities are shifted from a physician to a NP, which is used to reduce wait times, increase access to services, and reduce costs. Alternately, a supplementation of tasks occurs when NPs take on responsibilities that were not previously provided, which is used to increase the
quality of care provided. Archibald and Fraser (2013) argue that NPs should not be seen simply as a cost-effective alternative to physicians. Nursing practice emphasizes a more holistic, patient-centred approach to health and NPs ought to be recognized as autonomous health care professionals with the training to address health determinants across the life cycle (Archibald & Fraser, 2013; Wong & Farrally, 2013). The role implementation of NPs often leads to a diversification and intensification in the provision of care, which makes NPs an important actor in primary care reform initiatives (Delamaire & Lafortune, 2010; Archibald & Fraser, 2013).

The systematic review of randomized control trials undertaken by Horrocks, Anderson, and Salisbury (2002) found “no significant differences in patient health outcomes” (p. 821) for care delivered by a NP or a physician, although the authors note it is difficult to measure change in health outcomes after only one appointment. However, Horrocks et al. (2002) found that NPs were able to identify physical abnormalities more often, undertook more investigations, had longer consultations, made more complete records, and scored better on communication than physicians. This conclusion echoes the findings of multiple authors who have found that NPs can provide high quality care and that health outcomes are comparable, if not better, between patients who see NPs over physicians in both primary and acute care settings (Delamaire & Lafortune, 2010; Archibald & Fraser, 2013; Horrocks et al., 2002; Stanik-Hutt et al., 2013). Moreover, NPs have been found to score higher than physicians on patient communication, an important quality of care indicator. Indeed, patient satisfaction among NP-provided care is often higher than physician-provided care because NPs have longer patient consultations which allows them to provide more information and advice to their patients (Delamaire & Lafortune, 2010; Horrocks et al., 2002). In 2013, 20 percent of Canadians expressed dissatisfaction with the short duration of their doctors’ appointments and 15 percent reported that their physician is not communicating in a way that is easy for them to understand (OECD, 2015). Improving communication between patients and their care providers would be beneficial for all Canadians, especially for patients living with chronic health conditions who must establish regular care routines and require more consistent contact with the primary care system (Sarnak & Ryan, 2016). Finally, an evaluation of the introduction of NPs into Nova Scotia’s primary care system found “that patients accepted and were satisfied with the quality of care provided by NPs and that the addition of the NP
had increased the emphasis on health promotion and illness prevention and improved chronic disease management” (Martin-Misener, Crawford, & DiCenso, 2010, p. 8).

Stanik-Hutt et al. (2013) note that the definition of high-quality health care continues to change and evolve. Nurse practitioners are often the first step in a movement towards interprofessional collaboration. This has been demonstrated by the primary care reform efforts in Ontario, which have been the most extensive compared to other provinces. Interprofessional care not only “integrates the diverse knowledge and skills of multiple types of providers who communicate and collaborate with the patient and each another” (Stanik-Hutt et al., 2013, p. 498), but can also lead to a more efficient healthcare system where doctors can focus on more complex health issues with high degrees of uncertainty (Delamaire & Lafortune, 2010). Additionally, utilizing NPs in our primary care system would likely result in a more cost-effective system which is “a clear benefit to the future of Canadian health care delivery” (Archibald & Fraser, 2013, p. 271).

Contandriopoulos et al. (2016) argue that the current model of primary care delivery is supply-driven, meaning that access to services are defined by the physicians’ preferences rather than the needs of the patients. Interprofessional, team-based care has led to high levels of satisfaction from both patients and health practitioners, including physicians, NPs, and other team members (DiCenso et al., 2010), but there is still a significant level of resistance from some primary care physicians to move towards more multidisciplinary models of care delivery. Nevertheless, current demands on Canada’s healthcare system require a significant transformation to the division of labour in our primary care system (DiCenso et al., 2010)
Chapter 4.

Nurse Practitioners in BC

Utilizing NPs can improve the allocative efficiency of BC’s healthcare system by increasing entry points to the primary care system while also increasing the quality of care delivered to patients. Despite the benefits associated with NP-delivered care outlined in the previous chapter, NPs are not regularly employed in the delivery of primary care in Canada. Additionally, primary care reform initiatives in BC have been physician-focused and have done little to integrate NPs into primary care. As a result, the utilization of NPs has not increased much over the past decade. The percentage of NPs as a share of all registered nurses in Canada increased from 0.38 percent in 2005 to 1.35 percent in 2014 (CIHI, 2015b). This increase has been significantly lower in BC than in many other provinces (Figure 4.1). Indeed, there was only 1 NP per 35,114 people in BC in 2010 whereas Ontario had 1 NP per 8,925 people (Table 4.1); this reflects the NP workforce, which indicates that over half of all NPs working in Canada are in Ontario5 (Figure 4.2).

5 Ontario’s Ministry of Health and Long Term Care has taken a lead on funding NP positions and introducing reform initiatives that emphasize team-based primary care.
Figure 4.1. Nurse Practitioners as a Share of Total Registered Nurses

Source: CIHI, Regulated Nurses 2014

Table 4.1 Ratio of Nurse Practitioners to Population, 2010

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>1:13,727</td>
</tr>
<tr>
<td>BC</td>
<td>1:35,114</td>
</tr>
<tr>
<td>Alberta</td>
<td>1:14,148</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>1:8557</td>
</tr>
<tr>
<td>Manitoba</td>
<td>-</td>
</tr>
<tr>
<td>Ontario</td>
<td>1:8,925</td>
</tr>
<tr>
<td>Quebec</td>
<td>1:123,527</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>1:10,910</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>1:8913</td>
</tr>
<tr>
<td>PEI</td>
<td>-</td>
</tr>
<tr>
<td>Newfoundland</td>
<td>1:5,326</td>
</tr>
<tr>
<td>NWT &amp; Nunavut</td>
<td>1:1,354</td>
</tr>
</tbody>
</table>

Source: CNA, Nurse Practitioner Profile – Year 2010
Note: Ratios were not calculated for Manitoba are PEI
The Health Statutes Amendment Act (re)introduced NPs to the BC healthcare system in 2005 with the purpose of “[helping] meet the province’s growing need for primary health care by providing new care options for patients, particularly in situations where patients do not have a family doctor” (MoH, 2005). It was envisioned that NPs would work collaboratively with physicians in primary health teams (MoH, 2005). To facilitate NP integration, the MoH allocated $101.7 million from 2005 to 2011 with an additional $22.2 million in 2012 to support provincial health authorities in establishing new NP positions (Wong & Farrally, 2013). One initiative, Nurse Practitioners for British Columbia (NP4BC), funded up to 135 new NP positions from 2012 to 2015. The main purpose of NP4BC was to increase access to primary care services for high-need populations, including the “frail elderly, chronic co-morbid, mental health and substance use, maternity, and unattached patients” (MoH, n.d.). Funding for this initiative was provided by the MoH and administered through the regional health authorities. Applicants eligible to apply for a NP through the NP4BC initiative included non-profit healthcare providers (including Divisions of Family Practice), Health Authorities, and Primary Health Care Teams (Fraser Health Authority, n.d.). While NPs worked in various settings, they remained employees of the health authority and could only provide care to the identified high-needs patients, as previously identified.
The NP Practice Pattern Survey (delivered in 2011 and 2013) found that a majority of NPs in BC were employed full-time by one of the regional health authorities and had an average of 20 years of experience as a RN before becoming a NP (Sangster-Gormley et al., 2015). The report by Sangster-Gormley et al. (2015) also summarized NP practices:

NP participants were spending the majority of their time in direct care activities, most notably assessing, diagnosing and managing acute and chronic illnesses and mental health issues. They were ordering diagnostic tests, prescribing medications, providing health education and promoting preventive health practices. They were also engaged in community outreach such as making home visits, providing youth and outreach clinics, and providing care in local shelters. When not providing direct patient care, NP’s non-clinical activities included educating others, such as NP and medical students, professional development and community outreach. (p. 15)

Finally, the analysis by Sangster-Gormley et al. (2015) indicates that the introduction of NPs in BC has increased patients’ access to care; in particular, many patients believe that NPs provide comprehensive care that meets the needs of the patient rather than addressing a single physical problem.

Despite the investments made in the development of the NP role in BC, implementation remains marginal due to a gap between the existing funding model for NPs and the delivery of primary care. Traditionally, health authorities have not been involved in primary care with the exception of funding Community Health Clinics or providing care for marginalized populations (interview with Bowles, December 2016). Because NPs do not have the ability to bill the Medical Services Plan (MSP), the majority of NPs in BC NPs are salaried employees of regional health authorities. As a result, NPs in BC tend to provide care to specialized high-needs populations. There are a handful of NPs that practise independent of health authorities and work in more traditional primary care environments. These NPs are paid via shadow billing, which allows physicians to bill MSP for care provided by a NP as long as the physician is somehow involved in the NP’s practice (interview with primary care administrator, December 2015). This process has NPs seeing their patients individually and then getting the physician involved; physician involvement ranges from being briefed by the NP to speaking with the patient directly.
The MoH policy papers on primary care have signalled a strategic shift towards a new model of primary care delivery that relies on team-based, interdisciplinary care. NPs are a valuable member of BC’s healthcare workforce, who are specifically trained to deliver primary care, yet we do not utilize them despite thousands of people across the province without a primary healthcare practitioner (interview with nursing policy consultant, January 2017). Many barriers remain to achieving a wider role for NPs in BC. This capstone aims to identify the barriers preventing NP role implementation in primary care and to recommend policy options that will allow for the full integration of NPs into BC’s healthcare system.
Chapter 5.

Methodology

This study addresses the following research questions:

- How can nurse practitioners be utilized to play a key role in strengthening primary care systems?

- How have other jurisdictions – in particular, other provinces that operate under the Canadian medicare system – successfully integrated NPs to their primary care systems?

- What are the main barriers to NP role implementation in primary care systems and how do these barriers manifest in BC?

- Can practices from other jurisdictions be applied to NP role implementation in BC?

Findings to these questions will inform the policy options chosen and inform the analysis and evaluation of the different options. This capstone relies on the extensive international and Canadian literature on the NP role, coupled with stakeholder interviews to address these research questions. The analysis will be conducted in four steps:

1. Conduct an extensive literature review on the NP role definition to understand its impact on primary care systems.

2. Conduct a jurisdictional scan of Canadian and international practices to understand how the NPs are utilized in similar health systems and to recognize the continued challenges associated with NP role implementation.

3. Outline the barriers to NP role implementation, as documented in both international and Canadian literature, and understand the challenges affecting NPs in BC.

4. Conduct stakeholder interviews to supplement the literature regarding challenges to NP role implementation in BC and to explore the feasibility of different policy options.
5.1. Framework for Analysis

In 2004, Bryant-Lukosius and DiCenso (2004) developed the participatory, evidence-based, patient-centred process for APN (advanced practice nurse) role development, implementation, and evaluation (PEPPA). This framework (Figure 5.1) outlines nine steps involved with APN role implementation and also highlights the complexity of the process (Bryant-Lukosius & DiCenso, 2004; Sangster-Gormley et al., 2011). The PEPPA framework is widely accepted across Canada and has been used to develop the NP role in acute care, long-term care, and primary care (Sangster-Gormley et al., 2011).

![Figure 5.1 PEPPA Framework](source: Bryant-Lukosius and DiCenso, 2014 (reproduced with permission))
Implementing advanced practice nursing roles is complex, and best practices have not yet been established (Sangster-Gormley et al., 2011). This study aims to provide answers to Steps 5 and 6 of the PEPPA framework for NP role implementation in BC. This involves defining the NP role and developing strategies for NP role implementation through the identification of barriers and facilitators. In particular, these steps emphasize the importance of stakeholder preferences, which not only increases the feasibility of role acceptance but can also facilitate the full optimization of the NP role (Bryant-Lukosius & DiCenso, 2014). For BC, the preferences of physicians are critical given their position in the GPSC and their influential role in health policy reform.

5.2. Stakeholder Interviews

This capstone utilizes stakeholder interviews to develop a greater understanding of how the NP role has been developed in BC and the continued challenges to be addressed for full role implementation. As a result, stakeholders identified are directly involved in or familiar with the NP discussion in BC. Interviewees fall into the following categories: 1) nurse practitioners; 2) individuals with direct experience working with NPs; and 3) individuals familiar with the NP discussion from other professions. A full list of interviewees appears in Appendix A.

5.3. Limitations

This capstone has limitations in both my methodological process and in data collection. First and most importantly, a limitation of my methodology is that none of the NPs interviewed work in primary care as employees of health authorities due to time constraints; those who are employed by health authorities work in acute or specialized care while those who practise in primary care rely on shadow billing. Because the majority of NPs in BC are employed by health authorities, not having their experiences represented in the data presents a major limitation. A second limitation is that some interview participants were chosen using snowball sampling from other interviewees or as a result

6 These categories are not mutually exclusive; interviewees may have shared their experience as a NP and their expertise in another position related to the NP role.
of informational interviews. This sampling method may mean that certain opinions or experiences are over-represented in my analysis. A third limitation to my methodology is that I was not able to interview anyone from the Ministry of Health. In particular, I hoped to speak with an Assistant Deputy Minister involved with the NP file to better understand how the MoH views the NP role and identify the barriers facing the ministry in regards to NP role implementation. One further limitation to my collection of data is that my jurisdictional analysis relies entirely on published, academic literature. Healthcare policy is complex; There are many published articles on NPs in BC, however the interviews conducted for this capstone provided nuance into the NP discussion and experiences that are not represented in the literature. As such, conducting interviews with health policy makers in other jurisdictions would have added specificity to my case study analysis.
Chapter 6.

Role Implementation of Nurse Practitioners in Primary Care

NPs are increasingly being utilized in primary care systems in high-income countries, including Australia, the US, the UK, and Canada (specifically in the province of Ontario). Regional differences, including the structure of the healthcare system, health needs of the population, professional opposition, and political leadership determine the differences in NP role implementation across jurisdictions. A jurisdictional case studies analysis allows this capstone to identify best practices and successful facilitators used in these other jurisdictions. A full description of NP role implementation for each jurisdiction can be found in Appendix B. Despite regional differences, the literature indicates five common themes that act as facilitators or barriers to the role implementation of NPs around the world: NP scope-of-practice; public awareness of the role; administrative and professional support; professional opposition of the role; and appropriate funding mechanisms. This chapter will briefly discuss each theme with findings from the literature and results from stakeholder interviews. The interview results provide specific insight into the climate of NP role implementation in BC.

6.1. Scope-of-Practice

Legislation that restricts NP scope of practice has been identified as a major barrier to role implementation (Archibald & Fraser, 2013; Martin-Misener et al., 2010; Maier, 2015). Barriers to NP scope-of-practice impede patients’ continuity of care and result in the duplication of services leading to increased costs to the healthcare system. Indeed, Maier (2015) found that removing scope-of-practice barriers for NPs saved the US healthcare system between 0.3% and 0.5% of national healthcare spending.
In 2011, 97 percent of NPs in BC reported⁷ challenges providing care due to restrictive legislation (Sangster-Gormley et al., 2015). When surveyed again in 2013, this number decreased to 80 percent from which we can infer that some scope-of-practice barriers had since improved (Sangster-Gormley et al., 2015). Multiple interviewees mentioned that the introduction of NPs to the BC healthcare system was complex and that regulatory changes have occurred slowly over time. One interviewee credited the MoH as being proactive at making changes to reduce scope-of-practice barriers and, according to a nursing policy consultant, NP scope-of-practice in BC is now more expansive than other provinces.

However, many interviewees also indicated that NPs continue to face challenges regarding the lengthy process required for legislative changes coupled with scope-of-practice limitations established by employers. While nursing regulation may be broad at the federal or provincial level, the college also establishes standards, limits, or conditions that are then further pared down by employers (interview with nursing policy consultant, January 2017). One example is the process to allow NPs to prescribe narcotics; NPs were federally approved to prescribe narcotics in 2012, but it took until November 2015 to be approved in BC and June 2016 to be approved by the College of Registered Nurses of BC (CRNBC). Additionally, employers can restrict NP scope-of-practice. Even after the CRNBC approved NPs to prescribe narcotics, health authorities did not allow NPs under their employ to do so until after they had demonstrated appropriate training by taking an online course (interview Bowles, December 2016). As Kathleen Fyvie, President of the BC Nurse Practitioner Association (BCNPA), explains, the Ministry of Health has legislated a broad scope-of-practice for NPs and this scope-of-practice is regulated by CRNBC, but it is then subject to review by employers who may control or restrict NP practise for a variety of reasons. Sometimes changes are needed to medical bylaws before increases in scope can be facilitated or employers require standards to be developed and in place to ensure quality control and safety before practise changes are introduced. These changes take time and expertise to navigate. With the addition of Nurse Practitioner Lead positions in the health authorities (the largest employer of NPs), and the formation of Departments of Nurse Practitioners, these changes are happening in a more expeditious manner.

⁷ Results are from the NP Practice Survey (Sangster-Gormley et al., 2014).
6.2. Public Awareness of the Role

A lack of public awareness of the NP role was identified in the literature as a barrier for role implementation. There are many nursing designations and the general public may not know the scope-of-practice differences between each designation. In an Australian survey of public acceptability of NP care, Parker, Forrest, McCracken, McRae, and Cox (2012) found that of the 61 percent of respondents who had received primary care services from a nurse, 32 percent did not know if the nurse was a NP. As a result, patients may be hesitant to receive care provided by a NP if they do not fully understand the role. Especially in the primary care system, which has traditionally been dominated by physicians, patients may not understand where NPs fit into the structure of care. Contandriopoulos et al. (2016) define the role of a NP to be “at the intersection of medicine and nursing” which means that “their integration involves challenging existing role definitions of both registered nurses and physicians” (p. 685). Multiple interviewees, especially those who are practising NPs, brought up NP role definition. Fyvie describes NPs as “a bit of a hybrid” between nursing and medicine, and another NP explains that they do not feel like a nurse, even though that is how others perceive them.

Parker et al. (2012) found that the majority of Australians feel comfortable receiving some care from a NP, although acceptance varied by demographics. Patients were more likely to accept care provided by a NP if they lived in underserviced areas, if they had a lower income, or if they faced cost barriers in accessing services (Parker et al., 2012). This demonstrates that a hierarchy of health care providers exists, with many perceiving NPs to be a secondary provider to be accessed only when care cannot be provided by a physician or that NPs are less able to provide certain types of care as compared to physicians. No interviewees indicated that a lack of public acceptance has hindered the NP role. While people may be initially unfamiliar with the role, Fyvie believes that patients have always been open to care provided by NPs. Moreover, it has been her experience that once a patient receives care from a NP they gain a greater understanding of the role and become supportive of it; many interviewees, including NPs and those working directly in primary care with NPs, reiterated this sentiment. One interviewee believes that the public would see NPs as a welcome addition to BC’s primary care system given our high, unmet demand for care:
“I think if you were offered a nurse practitioner, who would follow your care and see you regularly and be that practitioner that’s looking out for you, versus endless walk-in care, even if it was all doctors I don’t think there’s any contest. I think most people would choose one person who gets to know you and follows your care” (interview with primary care administrator, December 2016).

Despite the willingness of British Columbians to seek care from NPs, there does not appear to be much consumer demand for NPs. As one interviewee explains, people do not call their MLAs to ask for more NPs; if they are concerned about primary care they are more likely to ask for physicians (interview with nursing policy consultant, January 2017). This reflects the fact that NPs are still not well utilized in BC’s primary care system and that the public is not familiar with the role.

6.3. Administrative and Professional Support

Martin-Misener et al. (2010) found that physician support, administrative support, and a work culture that emphasizes teamwork were top facilitators for NP role implementation in Nova Scotia. Additionally, Sullivan-Bentz et al. (2010) state that a “supportive environment and realistic professional expectations” (p. 1178) of new NPs can support their transition into primary care practice. However, because the NP role is relatively new, NPs are sometimes hired into practices that have never worked with the NP role before (Sullivan-Bentz et al., 2010). Inexperience with NPs can lead to confusion about the role and professional territoriality, while also forcing “new, inexperienced NPs to develop their roles, create new interprofessional relationships, and carve out both physical and professional space for practice” (Sullivan-Bentz et al., 2010, p. 1179). Furthermore, the need for administrative support does not end at new NPs. Even experienced nurses with extensive clinical experience, such as RNs, may require professional support in the NP role. Researchers in the US have found that this transition from a RN to NP can be complex and demanding because of a NP’s autonomous role and their collaborative practise model (Sullivan-Bentz et al., 2010).

Multiple interviewees identified a lack of professional support for NPs from clinic administrators, physicians, and even other nurses to be a significant barrier; the lack of support is often fueled by misunderstanding of NPs’ education, role, autonomy, and
practise. There have been many instances when clinic administrators, especially those who are not medical professionals, do not understand NPs’ scope-of-practice which has resulted in conflict between the health authority and the individual clinic (interview with Bowles, December 2016). Health authorities have attempted to remedy this conflict by developing orientation guides for employers, with the goal of easing the transition of NPs into primary care, including clear job descriptions and organizational charts (interview with Bowles, December 2016). In particular, strong administrative support has a positive impact on NPs because managers who understand the role can more easily bridge barriers that may arise regarding NPs practising to their full scope-of-practice (interview with nursing policy researcher, December 2016). A lack of administrative support may be a bigger issue for NPs practising in hospitals. One NP shared their experience working in a hospital where they felt they were thrown into a new setting without any support from physicians or administrators (interview with NP, December 2016). However, another interviewee believes that, because NPs have now been active in BC for 11 years, the “saturation” of NPs in various areas of the healthcare system has helped to improve administrative support through exposure to the role (interview with nursing policy researcher, December 2016).

6.4. Professional Interests

Multiple authors cited professional interests to be a major barrier to the role implementation of NPs in Canada (Archibald & Fraser, 2013; Delamaire & Lafortune, 2010; Martin-Misener et al., 2010). There has been opposition from organized medicine and medical professionals in almost all instances where APNs have been introduced to a healthcare system (Delamaire & Lafortune, 2010). Key reasons that physicians tend to oppose the role implementation of APNs have to do with potential overlap in the scope-of-practice of both professions, the high degree of autonomy and independence given to APNs, and concerns about their legal liability and skillset (Delamaire & Lafortune, 2010). Additionally, Delamaire and Lafortune (2010) found that the organization of the primary care system is a major determinant of the success of APNs. Given that the majority of physicians in Canada do not practise in interprofessional teams, it becomes a greater challenge to integrate NPs into existing practice settings.
Archibald and Fraser (2013) cite that a barrier to NP role implementation in Canada has been the idea that NPs are “cost-effective mini physicians” (p. 272), which in turn incites physicians to protect their autonomy. This idea that NPs should be utilized to replace physicians ignores specific skills that NPs can bring to primary care and the opportunities to improve care access and quality for Canadians. Studies of professional ‘turf battles’ have found that relying on self-governing professional bodies to determine the appropriate scope-of-practice of different professions is problematic, because it places the emphasis on professional interest over the public’s interest. In order to avoid this conflict, DiCenzo et al. (2010) propose that the government bring together both physician and non-physician primary health care providers in the development of policy so that practitioners can work together in developing a system that meets the needs of the public.

Historically, the professional relationship between physicians and NPs has been antagonistic. A survey of professionals who work in BC with NPs found that many coworkers identified the working relationship between physicians and NPs to be a barrier that prevented the effective integration of NPs into the healthcare system (Sangster-Gormley et al., 2015). However, one interviewee explained that the professional associations for both physicians and NPs are moving away from the defensive stance (interview with physicians’ advocate, January 2017). A more amenable approach may better reflect the experiences of physicians and NPs in practice. For example, the majority of NP respondents to the 2013 NP Practice Survey who had a direct working relationship with one or more physician felt satisfied with these relationships (Sangster-Gormley et al., 2015). Additionally, Sangster-Gormley et al. (2015) found that the majority of NP coworkers surveyed, including physicians, felt that NPs were meeting or exceeding their expectation. This also reflects the experience of one interviewee, a NP who works with physicians under a shadow billing model, who has not experienced any challenges collaborating with physicians in their current role. They explain that physicians practising at their clinic are open to working with NPs and are happy to see them succeed. One possible explanation for this is that those physicians who may be more open to working in interdisciplinary models of care will choose to practise in these types of settings.

Nonetheless, a few interviewees did identify physician resistance to the NP role as a barrier to utilization. First, some interviewees felt that physicians may resist NP practise
due to a lack of understanding of their training and scope-of-practice. As a result, physicians may not see the benefit to employing a NP because they underestimate the services NPs can provide (interview with nursing policy consultant, January 2017). Economic disincentives were identified as a second reason for physician resistance to the NP role. One interviewee feels that there is no economic incentive for a physician to hire a NP because the majority of practices in British Columbia are still FFS practices (interview with health policy consultant, December 2016). While there may be financial disincentives for physicians to collaborate with NPs, one interviewee felt that this was not a valid argument in the context of primary care in BC. They believe that NPs are an existing healthcare provider that the province must better utilize because many British Columbians continue to lack access to a family physician (interview with nursing policy consultant, January 2017). Given the high demand for healthcare services, the addition of NPs to the primary care system in BC would not result in physicians experiencing reduced demand or financial losses.

6.5. Funding Mechanisms

All interviewees identified that the most significant barrier to NPs working in primary care is the lack of an appropriate funding mechanism. Moreover, the current funding model is not conducive to having NPs and physicians working together in private doctors’ offices because those practices tend to bill FFS, which NPs are not able to do (interview with nursing policy researcher, December 2016). Presently, most NPs are employed by local health authorities and are paid a salary for their work. There are also a handful of NPs practising with physicians in more traditional primary care settings. These NPs are paid via shadow billing, which allows physicians to bill MSP for care provided by a NP as long as the physician is somehow involved in the NP’s practise (Primary Care Administrator, December 2015). One interviewee, a NP practising under the shadow billing model, says that it is “hobbling the role of the NP” because it undermines their autonomy. Additionally, shadow billing leads to inefficiencies because doctors are also seeing their own patients and may not have time to be involved in the NP’s practise. This was a frustration raised by all NPs interviewed who work under the shadow billing model because it causes them to fall behind schedule. Finally, because shadow billing utilizes
the FFS remuneration model, NPs expressed feeling pressure to maintain a certain patient volume, which can be challenging if a complex patient comes in for care.

As a result of this complex funding system, many NPs take work outside of primary care, often in hospitals, because that is where the jobs are located (interview with NP, December 2016). Additionally, the NP4BC initiative established a number of NP positions specifically in specialized care. These positions may not be appropriate for many NPs who are trained in primary care. Fyvie notes that “a lot of nurse practitioner positions are in specialized populations or marginalized populations and they require a fair amount of expertise specific to the unique needs of those populations in addition to the family practice training, so if not adequately supported, those positions can be quite challenging”. Multiple interviewees brought up that the consequence of hiring NPs into specialized positions is that it becomes more challenging for them to move back into primary care positions. One interviewee believes that if NPs are not employed in primary care shortly after graduating then they lose their skills because there is nowhere else they can maintain them (interview with primary care administrator, December 2016).

Establishing a sustainable funding mechanism for the NP role was identified as the crucial factor necessary to the full integration of NPs into the healthcare system (interview with nursing policy consultant, January 2017). In fact, the gap between funding mechanisms and appropriate practice settings for NPs was a significant source of frustration for some interviewees. More than one practising NP concluded that it may not be worth becoming a NP in BC because of these funding barriers. One NP disclosed that they earn the same amount of money as a RN, despite NPs having a greater medical responsibility (interview with NP, December 2016). A second NP felt frustrated that the government has developed the NP role and allowed for graduate programs but does not provide a system where graduates can be employed (interview with NP, December 2016). Indeed, establishing a sustainable funding mechanism may also increase physician support for the NP role. As one interviewee explains, some physicians did not want to hire a NP during the NP4BC initiative because they did not feel it was worth it to change their entire practice structure and add additional patients to their practice for only a few years while funding was available (interview with physicians’ advocate, January 2017).
Chapter 7.

Policy Options

This chapter introduces policy options to facilitate the role implementation of NPs in BC. These policies are informed by the literature review, best practices from other jurisdictions, and results of stakeholder interviews. This capstone has identified multiple barriers to NP role implementation in BC and the biggest barrier remains the lack of a viable funding model to support the practise of NPs. As such, the policy options that are proposed and analyzed will refer specifically to the funding and administration of the NP role. That being said, these policy options are not intended to be mutually exclusive. The sentiment shared by multiple interviewees is that there must be a variety of funding models available to NPs.

7.1. Status Quo

To date, all funding specifically allocated towards the NP role by the MoH has been done through the regional health authorities. As a result, the majority of NPs practising in BC do so as a salaried employees of the regional health authorities. The most recent initiative, NP4BC, ended in 2015. The NP4BC initiative introduced NPs to a number of different practice environments and familiarized many patients, practitioners, and administrators with the NP role. As a result, some health authorities have continued to fund NP positions in primary care; this appears to be more common in rural communities where access to primary care services is restricted or where physicians choose not to practise. Additionally, health authorities continue to fund NP positions in community health clinics that provide care to marginalized, high-needs populations or in specialized acute care settings.

There are also a few NPs in more traditional primary care settings, independent of health authorities. These NPs may practise in a physician’s office using a shadow billing model where the physician acts as a middleman between the NP and the MoH; physicians
bill MSP for care provided by a NP as long as they are involved in some way. Then, the compensation is shared between the physician, NP, and clinic.

7.2. Health Authority Affiliated Nurse Practitioner

Health authority affiliated NPs is one of two models proposed by the BCNPA report: “Primary Care Transformation in British Columbia: A New Model to Integrate Nurse Practitioners”. This model relies on new MoH funding for NP positions that are administered by the health authority; NPs would remain salaried employees of health authorities but could be added to primary care practices that partner with the health authority, including FFS doctor offices. As such, this option represents an incremental change to the existing model but remains within the current structure of primary care practice and delivery.

As outlined by the BCNPA report, “[a] Health Authority seeking to add new or additional NP staff to meet an identified need in primary care would complete the designated application process for NP provider compensation” (Prodan-Bhalla & Scott, 2016, p. 17). Funding from the MoH would be attached to the specific NP position and provide “salary, benefits, overtime, locum relief, administrative support as well as education support” (Prodan-Bhalla & Scott, 2016, p. 17). This option builds on the success of NP4BC by providing a funding option for NPs to practise in primary care. Moreover, it addresses the weaknesses of the previous initiative, including the fact that NP4BC funded only the NP’s salary and did not cover administrative overhead or benefits, which were borne by the clinic; these considerations were identified as barriers to NP role implementation by interviewees and the BCNPA report.

7.3. Provincially Funded Salary for Nurse Practitioners

Non-health authority affiliated NPs is the second funding model proposed by the BCNPA report. This option relies on the MoH to fund NP roles independent of the health authorities to increase access to primary care services; NPs would become employees of the entity requesting funding. As outlined by the BCNPA report, primary care providers
and community groups\(^8\) that are responsible for primary care “could apply directly through the NP funding process to add an NP to their structures/programs or health services” (Prodan-Bhalla & Scott, 2016, p. 19).

This application process would be similar to the process used for the NP4BC initiative, under which eligible applicants included: qualified non-profit health service providers (including Divisions of Family Practice), health authorities, and primary health care teams (Fraser Health Authority, n.d.). In fact, a similar funding model was used to pilot the NP role in Nova Scotia as one part of the province’s ‘Strengthening Primary Care Initiative’ (Martin-Misener et al., 2010). Physicians could request funding from the Department of Health to establish a NP position in their office, but eligibility criteria stipulated that “the NP’s employer could not be a physician and that physicians collaborating with NPs could not be remunerated solely on a [FFS] basis” (Martin-Misener et al., 2010, p. 8). In this option, the MoH retains the ability to establish funding eligibility based on provincial priorities of team-based primary care; moreover, NPs remain autonomous practitioners rather than employees of health authorities. Regular evaluation of this model could be conducted by the MoH using NP encounter reporting.

### 7.4. Nurse Practitioners Billing to MSP

This option would provide NPs with the ability to bill MSP for some or all of their services, allowing for the most flexible utilization of NPs in primary care. Many healthcare professionals have the ability to bill to provincial health plans but this authority has not been extended to NPs in any province. NPs in Australia have had the ability to obtain billing numbers since 2010 and can bill the Medical Benefits Schedule (MBS) on an established fee schedule. The specific remuneration model will not be explored for this option; the MoH may choose to expand FFS billing authority to NPs or introduce a new billing model, such as the one used for NPs in Australia where billing items reflect the length of consultation required and the complexity of care provided\(^9\).

\(^8\) Examples provided by the BCNPA include First Nations Health Councils or community boards of rural communities.

\(^9\) Table B1 (Appendix B) displays the four NP MBS billing items.
Since the introduction of the NP role in 2005, there has been an expectation that NPs would submit encounter records to the MSP. These records were “intended to be equivalent to medical billing claims without a dollar value attached” with the purpose of “tracking patient data for administrative purposes, assisting in evaluating practise patterns, and allowing for payment to specialists, GPs, and for diagnostic services” (Sangster-Gormley et al., 2015, p. 8). The established framework of encounter reporting infers that there is already a structure in place if the province was to extend MSP billing authority to NPs.
Chapter 8.

Objectives, Criteria, and Measures

With the goal of increasing the utilization of NPs in BC’s primary care system, five objectives will be used to evaluate the policy options: effectiveness, improving health outcomes, cost, administrative complexity, and stakeholder acceptance.

Table 8.1 Summary of Evaluation Criteria

<table>
<thead>
<tr>
<th>Societal Objectives</th>
<th>Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Does it directly increase the ratio of NPs to the general population in BC?</td>
</tr>
<tr>
<td></td>
<td>Does it facilitate NPs working in various primary care settings?</td>
</tr>
<tr>
<td>Improve Health Outcomes</td>
<td>Does it improve British Columbians’ access to primary care services?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Governmental Objectives</th>
<th>Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>What is the incremental cost to the Ministry of Health?</td>
</tr>
<tr>
<td>Administrative Complexity</td>
<td>How administratively complex is it?</td>
</tr>
<tr>
<td>Stakeholder Acceptance</td>
<td>Is it supported by nurse practitioners?</td>
</tr>
<tr>
<td></td>
<td>Is it supported by doctors?</td>
</tr>
</tbody>
</table>

I evaluate each option based on the effectiveness of policies in other jurisdictions and the information collected from literature reviews and expert interviews.

8.1. Effectiveness

This objective evaluates the effectiveness of each policy option at increasing the utilization of NPs in primary care, which is the main problem outlined in this capstone. Effectiveness is further divided into two criteria: does the option directly increase the ratio
of NPs to the general population in BC and does it facilitate the creation of NP positions in various primary care settings.

The first criterion aims to measure the extent to which each policy increases the ratio of NPs to the general population in BC. It must be noted that the purpose of this capstone is not to simply increase the number of NPs, which could be done by increasing the size of the NP graduate programs. Instead, I aim to provide policy recommendations that will facilitate the integration of the NP role in BC’s healthcare system. The barriers identified, particularly the NP funding model, discourages the NP role in BC. The second criterion aims to measure the extent to which each policy facilitates the NP positions in various primary care settings. The barriers identified in this capstone specifically affect the ability for NPs to practise in primary care; therefore, the recommended policy must allow NPs to practise in various primary care settings.

8.2. Improve Health Outcomes

This objective evaluates the ability for each policy option to increase British Columbians’ access to primary care services. While it is logical to assume that an increase in the number of NPs would lead to increased access to services, NPs in BC have historically faced barriers that restrict where they can practise and the demographic of patients they can deliver care to. Given the unmet demand for primary care services in BC, this criterion aims to measure the extent to which each policy increases access to primary care for all British Columbians instead of only those with chronic or complex health conditions.

8.3. Cost

This objective evaluates the incremental cost of each policy option to the provincial health budget, which plays a significant role in determining its feasibility. The incremental cost of each option is based on the assumption that increasing the utilization of NPs in primary care will increase the total number of primary care providers necessary to meet unmet and future demand. However, I am interested in both the short and long-term costs
of each policy. Prioritizing the access and quality of primary care provided can result in long-term cost savings for the healthcare system. In this capstone, long-term costing is assessed by estimating the impact of each option on improving access to primary care services.

8.4. Administrative Complexity

This objective evaluates the administrative complexity associated with each policy option. Healthcare provision involves many agents; the utilization of NPs may increase administrative complexity for primary health care practices, physicians, health authorities, and the MoH. As a result, the complexity of each policy is an important consideration.

8.5. Stakeholder Acceptance

This objective evaluates the acceptance of each policy option from the perspective of two major stakeholders: NPs and physicians. The BCNPA advocates that there should be ‘no discussion about NPs without NPs’ (interview with Fyvie, December 2016). Additionally, the final recommendation will impact the NP profession as a whole; because of this, NPs must be included as a key stakeholder group. However, NPs are not a homogeneous group and likely hold diverse opinions regarding each option. I will use the results of my interviews, which included interviews with multiple NPs, to determine the appropriateness of each option.

I also include physicians as a key stakeholder for two reasons. First, it is necessary to include the opinion of physicians given that they have dominated primary care. Second, each policy differently impacts the structure of primary care delivery in BC and physician satisfaction has “been identified as an important indicator of success for primary care reform efforts in Canada” (Green et al., 2009, p. 170). As a result, physician acceptance is a crucial indicator of feasibility.
8.6. Evaluating the Objectives

Each proposed policy option will be measured using quantitative and qualitative evidence from the literature review, jurisdictional case studies, and expert interviews. A simple scoring method will be used to assess how well each policy option fulfills the outlined criteria. Measures will be assigned a score of 1, 2, or 3 with a maximum score of 18 points per option. A score of 1 represents the worst score, a score of 2 represents a moderate score, and a score of 3 represents the best score; each score is determined relative to the options available. Each score will be visually identified using red (1), yellow (2), and green (3).

No objectives will be weighted in this analysis; however, Effectiveness and Stakeholder Acceptance each have two criteria. This is justified because the Effectiveness objective represents the key purpose of this analysis and is vital to the resolving the identified policy problem. Stakeholder Acceptance is an essential indicator of the political feasibility of the option, so it is justified that two measures are included. Table 8.2 illustrates the scoring system for each criterion.
Table 8.2 Measures and Scoring System

<table>
<thead>
<tr>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
</tr>
<tr>
<td>Does it directly increase the ratio of NPs to the general population in BC?</td>
</tr>
<tr>
<td>The ratio of NPs to the general population in BC</td>
</tr>
<tr>
<td>Measure</td>
</tr>
<tr>
<td>Scoring</td>
</tr>
<tr>
<td>1. Unlikely to increase the ratio of NPs to the population</td>
</tr>
<tr>
<td>2. Moderately increases the ratio of NPs to the population</td>
</tr>
<tr>
<td>3. Significantly increases the ratio of NPs to the population</td>
</tr>
<tr>
<td>Does it facilitate NPs working in various primary care settings?</td>
</tr>
<tr>
<td>Nurse practitioners have a funding mechanism that allows them to practise in the majority of primary care settings</td>
</tr>
<tr>
<td>1. NPs are not able to practise in primary care settings</td>
</tr>
<tr>
<td>2. NPs are able to practise in some primary care settings</td>
</tr>
<tr>
<td>3. NPs are able to practise in most or all primary care settings</td>
</tr>
<tr>
<td>Improve Health Outcomes</td>
</tr>
<tr>
<td>Does it improve British Columbians’ access to primary care services?</td>
</tr>
<tr>
<td>British Columbians’ with a regular primary care practitioner</td>
</tr>
<tr>
<td>1. Unlikely to increase access to primary care services</td>
</tr>
<tr>
<td>2. Increases primary care access for some high-needs patients</td>
</tr>
<tr>
<td>3. Increases primary care access for all British Columbians</td>
</tr>
<tr>
<td>Cost</td>
</tr>
<tr>
<td>What is the incremental cost to the Ministry of Health?</td>
</tr>
<tr>
<td>Author’s assessment</td>
</tr>
<tr>
<td>1. Requires a significant increase to the budget</td>
</tr>
<tr>
<td>2. Requires some additional resources</td>
</tr>
<tr>
<td>3. Can be implemented within the existing budget</td>
</tr>
<tr>
<td>Administrative Complexity</td>
</tr>
<tr>
<td>How administratively complex is it?</td>
</tr>
<tr>
<td>Agents directly involved in the hiring, supervision, and remuneration of NPs:</td>
</tr>
<tr>
<td>• Employer</td>
</tr>
<tr>
<td>• Physicians (as co-workers)</td>
</tr>
<tr>
<td>• Health Authorities (when not employer)</td>
</tr>
<tr>
<td>• Ministry of Health</td>
</tr>
<tr>
<td>1. Three or more agents are involved</td>
</tr>
<tr>
<td>2. Two agents are involved</td>
</tr>
<tr>
<td>3. One agent is involved</td>
</tr>
<tr>
<td>Stakeholder Acceptance</td>
</tr>
<tr>
<td>Is it supported by nurse practitioners?</td>
</tr>
<tr>
<td>Proportion of nurse practitioners in support of the option</td>
</tr>
<tr>
<td>1. No support from NPs</td>
</tr>
<tr>
<td>2. Low or unclear support from NPs</td>
</tr>
<tr>
<td>3. Moderate or high support from NPs</td>
</tr>
<tr>
<td>Is it supported by doctors?</td>
</tr>
<tr>
<td>Proportion of doctors in support of the option</td>
</tr>
<tr>
<td>1. No support from doctors</td>
</tr>
<tr>
<td>2. Low or unclear support from doctors</td>
</tr>
<tr>
<td>3. Moderate or high support from doctors</td>
</tr>
</tbody>
</table>
Chapter 9.

Analysis of Policy Options

The four policy options are analyzed using the evaluation criteria and scoring system outlined in Table 8.2. This chapter describes the scoring of each policy option, incorporating the opinions of interviewees in an attempt to outline the nuanced arguments for and against each option. The results of the policy analysis are summarized in Table 9.1.

Table 9.1 Summary of Policy Analysis

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Option 1: Status Quo</th>
<th>Option 2: Health Authority Affiliated NPs</th>
<th>Option 3: Provincially Funded Salary for NPs</th>
<th>Option 4: NPs Billing to MSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does it directly increase the ratio of NPs to the general population in BC?</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Does it facilitate NPs working in various primary care settings?</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Does it improve British Columbians’ access to primary care services</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>What is the incremental cost to the Ministry of Health?</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>How administratively complex is it?</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Is it supported by NPs?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Is it supported by doctors?</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total /18</td>
<td>11</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>
9.1. Status Quo

The absence of a sustainable funding mechanism by which to pay NPs in primary care remains the most significant barrier to NP role implementation. The majority of NPs practising in BC are employees of health authorities despite the majority of primary care delivery occurring outside of the purview of health authorities. Additionally, some NPs work in private practices utilizing shadow billing, but this is costly for the MoH and the clinics employing NPs. Moreover, it makes the NP’s work invisible because the physician bills for that service even though it was provided by the NP (interview with Fyvie, December 2016). Finally, the current model has NPs caring for very complex patients whereas their training is more directed towards common and chronic illnesses (interview with NP, December 2016).

This option fits within the existing MoH budget and reflects the current model of primary care delivery. Given the number of British Columbians who lack access to primary care services and the new strategic direction for primary care, this capstone posits that the status quo option does not effectively utilize NPs.

9.2. Health Authority Affiliated Nurse Practitioners

Effectiveness

This option is expected to increase the number of NPs practising in BC. Similar to the NP4BC initiative, this option would create NP positions and incentivize NPs to stay in BC rather than move to another province or the US in search of relevant work (Schultz, 2016). However, this option perpetuates existing challenges facing the NP role, in particular the inability for NPs to practise independently of health authorities. As outlined in the BCNPA report, NPs affiliated with a health authority can work in FFS primary care practices or GPSC Primary Care Homes on the condition that they partner with health authorities (Prodan-Bhalla & Scott, 2016). However, without such partnerships, NPs will continue to be restricted in their ability to practise in many primary care settings.
**Improve Health Outcomes**

This option does not resolve existing barriers that restrict the primary care settings in which NPs can practise. As a result, this option may increase access to primary care services for high-needs patients who are served by health authorities, but it does not allow NPs to “increase access where they are needed most” (Prodan-Bhalla & Scott, 2016, p. 17).

**Cost**

This option will require additional funding from the MoH to create and sustain NP positions. The NP4BC initiative cost $22.2 million over three years and created up to 135 NP positions, compensating NPs at an average of $115,995 per year (salary and benefits)\(^\text{10}\) (Fraser Health Authority, n.d.). Multiple interviewees indicated that because the NP4BC initiative failed to cover benefits, administrative costs, and overhead for the position, this created a disincentive for many clinics to add a NP to their practice. The BCNPA report estimated the total budget for a single full-time NP (inclusive of salary, benefits, and overhead) to be $193,744 (Prodan-Bhalla & Scott, 2016).

While the MoH may have to increase the budget to fund additional NP positions, increasing patient access to NP care is expected to reduce the number of ER visits and reduce patient reliance on polypharmacy (Sangster-Gormley et al., 2015). Indeed, this was emphasized by an interviewee who explained that utilizing NPs in the Interior Health Authority led to a reduction in ER visits, reduction in admission to acute care, and delay in admission to community care facilities (interview with health policy consultant, December 2016).

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\(^\text{10}\) A special to *The Globe and Mail* on the NP profession indicates that practice settings have a significant impact on NPs’ salaries. In Ontario, NPs working in community clinics earn a maximum annual salary of $89,203, while NPs working in hospitals earn between $90,000 to $120,000 annually (Lindzon, 2015).
**Administrative Complexity**

This option remains administratively complex because it requires health authorities to administer provincial funding for the NP role. Additionally, clinics not currently affiliated with a health authority that want to add NPs to their practice must partner with health authorities; this transforms health authorities into an unnecessary middleman.

**Stakeholder Acceptance**

This option is expected to receive support from some NPs, but not all. It was one of two recommended funding mechanisms by the BCNPA (Prodan-Bhalla & Scott, 2016) and it would create more NP positions, although likely in specialized roles. As such, some NPs may oppose this option because it does not provide them with the flexibility to practise in more traditional primary care settings. It is also difficult to anticipate support from physicians. As one interviewee shared, physicians who wanted to work with NPs supported the NP4BC initiative and felt that it worked well (interview with physicians’ advocate, January 2017). Moreover, this option represents an incremental change within the existing healthcare system.

### 9.3. Provincially Funded Salary for Nurse Practitioners

**Effectiveness**

This option is expected to increase the number of NP positions in primary care and facilitate the NP role in a variety of primary care settings. This funding mechanism reflects best practices in Ontario, where the Ministry of Health and Long Term Care (MOHLTC) directly funds 50 percent of NPs working in NP-led clinics, 46.3 percent of NPs working in Community Health Centres, and 31 percent of NPs working in physician’s offices (Koren, Mian, & Rukholm, 2010). As an employer of NPs not affiliated with health authorities, one interviewee believed this option to be an ideal scenario (interview with primary care administrator, December 2016). However, depending on the eligibility criteria established by the MoH, some practices may be restricted from applying for funding which would restrict NPs from practising in some primary care settings.
**Improve Health Outcomes**

This option is expected to increase the ability for NPs to practise in a variety of primary care environments, which will increase British Columbians’ access to primary care services. As estimated by the BCNPA, one full-time NP can provide care to 800 unattached patients (Prodan-Bhalla & Scott, 2016). Additionally, a funding mechanism that relies on salary may be more reflective of NP-provided care than other funding mechanisms. Sarma, Devlin, Belhadji, and Thind (2010) found that remuneration models to influence the way primary care providers practise. Specifically, an analysis of the 2004 National Physician Survey suggest that family physicians remunerated by non-FFS schemes devoted more hours to direct patient care in settings other than the office or clinic relative to physicians remunerated by FFS (Sarma et al., 2010). Additionally, non-FFS physicians were found to spend more hours on indirect patient care, such as patient education (Sarma et al., 2010).

**Cost**

Similar to Option 2, this option will require additional funding from the MoH to facilitate and sustain NP positions. Because this option increases the flexibility to practise in multiple settings, it is expected that there will be a greater demand for funding under this model compared to Option 2, which would increase the cost to the government.

**Administrative Complexity**

This option is less administratively complex because health authorities are not required to be the middleman. Instead, funding will flow directly from the MoH to the primary care practices that employ the NP, although it does still require employers to apply for funding to facilitate the NP position. Furthermore, this option allows NPs to be employed by the practice where they work rather than through the health authority.

**Stakeholder Acceptance**

This option may appeal to some NPs, especially those who do not want to be health authority employees and those who want increased autonomy to work in multiple
primary care settings. As one interviewee shared, NPs who may initially prefer a billing model change their opinion if funding encompassed salary and overhead (interview with nursing policy consultant, January 2017). Additionally, this option may be favourable to physicians who want to increase the capacity of their practice because it allows them to add a NP position with little additional cost. However, one important consideration has to do with the sustainability of the funding; as one interviewee explained, it is difficult for physicians to add a NP to their practice and increase the number of patients attached to their practice if there is uncertainty surrounding the funding (interview with physicians’ advocate, January 2017). Finally, depending on the cost, this option may reduce available funding for physicians, which could reduce physician support.

9.4. Nurse Practitioners Billing to MSP

Effectiveness

This option gives NPs the ability to bill to MSP, which establishes a sustainable mechanism by which NPs can practise in primary care. As a result, this option is expected to increase the number of NPs who choose to work in BC. When NPs in Australia gained the authority to bill to MBS, the number of NPs jumped from 400 to 1000 between 2010 and 2013 (Delamaire & Lafortune, 2010; Carter et al., 2015). Moreover, this option does not prevent NPs from working under a health authority model but rather increases the flexibility for NPs to choose the environment in which they work.

Improve Health Outcomes

This option is expected to increase access to primary care services for all British Columbians. In particular, unlike the other options, allowing NPs to bill to MSP may facilitate the creation of NP-only primary care practices for underserviced communities. While this option may increase British Columbians’ access to primary care services, many interviewees feel that a FFS model will ultimately decrease the quality of care provided. In particular, if NPs operate under a FFS model then it disincentives the amount of time spent with the patient, which is one of the documented benefits of NP-delivered care (interview with health policy consultant, December 2016).
Cost

This option may require substantial funding from the MoH, depending on the remuneration model used. It is unlikely that the MoH will want to utilize a FFS model, because they do not want to grow the practice model (interview with Fyvie, December 2016). As one interviewee shared, we have to separate the way the FFS model is currently being used (“one visit, one problem”) and look at a new model of funding primary care that is not driven by volume (interview with nursing policy researcher, December 2016). As such, an alternative FFS model could see fees attached to encounter codes but NPs remain salaried (interview with nursing policy researcher, December 2016). Furthermore, if NPs had the ability to bill to MSP then, as one interviewee states, they would need to be compensated at a level similar to physicians in order for them to pay for overhead and additional administrative costs (interview with NP, December 2016).

Increasing access to primary care services and strengthening the primary care system is expected to reduce the overall costs to the healthcare system. As a result, the funding mechanism that improves the primary care system the most may also have the biggest impact on reducing healthcare costs.

Administrative Complexity

Allowing NPs to bill to MSP is the least complex option because it involves only NPs and the MoH; this option allows NPs to practise more autonomously and does not require the involvement of the NP’s employer. Additionally, NPs are already required to submit encounter records to the MoH, which means that a structure already exists for billing. However, some interviewees do explain that reporting encounter records is complicated and time-consuming for the practitioner.

Stakeholder Acceptance

This option is contentious among the NP profession. Most interviewees indicated that NPs do not support a FFS model because they feel it is volume driven and does not accurately reflect the NP role. A review of NP literature conducted by Martin-Misener et al. (2016) found that NPs see 9-15 patients per day with an average appointment time of
10-30 minutes. In particular, NPs “[reported] that shorter appointment times are challenging to sustain because they do not allow for the time nurse practitioners take to teach and support patients and families” (Martin-Misener et al., 2016, p. 176). However, some NPs do support the ability to bill MSP, regardless of the billing model, because it allows them to practise autonomously with the option to collaborate with physicians as needed (interview with NP, December 2016). It is unlikely that physicians will support this option. However, compromises can be made to satisfy both stakeholders. For example, Currie et al. (2016) notes that the requirement for NPs in Australia to obtain collaborative agreement with a physician was introduced to appease the Australian Medical Association’s opposition to NPs gaining access to independent billing. However, this requirement has been criticized as limiting NPs’ professional autonomy (Carter et al., 2015).
Chapter 10.

Recommendation

Multiple interviewees expressed that finding a NP funding mechanism will not be effectively resolved with a “one-size-fits-all” solution. As such, the policy options analyzed in this capstone are not meant to be mutually exclusive; instead, the comparison of each option is used to better understand the inherent trade-offs of each funding mechanism. Based on my analysis, I provide two recommendations to ensure NPs can fully integrate into BC’s primary care system: 1) allow NPs to bill MSP; and 2) establish provincially funded salaried positions for NPs. The combination of these two options allows for the most flexible utilization of NPs in the primary care system. Practices that want to employ a NP but whose patients may not be well served by FFS practitioners can apply to the MoH for funding to create a NP position while other practices can simply hire NPs that bill to MSP. Implementing both funding mechanisms also allows NPs to choose their preferred funding mechanism; NPs who prefer to work on salary can choose clinics that utilize this option but it does not restrict NPs who prefer to bill to MSP. Moreover, these options do not prevent NPs from working for health authorities if they so choose, but it ensures that they can work outside of these settings as well.

10.1. Additional Recommendations

The main analysis of this capstone aims to recommend a sustainable funding mechanism that will allow for the full utilization of NPs in primary care. Many additional barriers hindering NP role implementation were identified in the literature and through stakeholder interviews. In particular, it is recommended that the GPSC expand membership to include other healthcare professionals. The GPSC has a dominant role in the direction of BC’s primary care system and it is essential that NPs and other primary care professionals be represented in these discussions. The MoH policy papers indicate that the GPSC might “evolve into a multidisciplinary primary and community care committee” and that the ministry, along with Doctors of BC, will explore the possibility of “refreshing the mandate of the [GPSC] and expanding its membership to include
representatives of community health services” (MoH, 2015, p. 20). This is an essential recommendation that is expected to have an impact on the feasibility of the policy options debated in this capstone. Furthermore, altering the composition of the GPSC to include interdisciplinary primary care providers “would signal a significant change in attitude toward inclusion and teamwork” (Prodan-Bhalla & Scott, 2016).

A second recommendation is to develop mechanisms that will more effectively support NPs as they transition into their roles; this was a reoccurring theme discussed in many interviews. When the NP role was first introduced in BC, many individuals choosing to become NPs were already practising as RNs. As a result, there was a greater need for mentorship because new NPs were not accustomed to practising in isolation. More recent NP graduates may not have extensive nursing experience, which also changes their need for support because they may not have as much clinical experience as more practised NPs. Transition support can come in many forms; in particular, interviewees discussed the need for both on-the-job mentorship but also the addition of a residency or internship component to the existing NP graduate curriculum.
Chapter 11.

Conclusion

Primary care is the foundation of a publicly funded healthcare system, and in a climate of rising costs and increasing demands for care the BC Provincial Government must act to improve access to and quality of primary care. Currently, NPs exist as an underutilized resource; BC has three universities with NP graduate programs yet the role faces numerous barriers that prevent NPs from practising to their full scope-of-practice and integrating into the primary care system.

This capstone comes at a time when high-level discussions are taking place over what our primary care system will look like in the future. The MoH policy papers signalled that primary care will be shifting towards team-based, interdisciplinary care which creates a policy window to advocate for the NP role. Among the barriers addressed in this capstone, the lack of a sustainable funding mechanism was identified as the most significant barrier preventing NP role implementation. My analysis aims to identify the trade-offs among major funding mechanisms and recommends two distinct options that will provide NPs with the autonomy to practise in multiple settings and to choose the option that best reflects their preferences. Additionally, it is recommended that the GPSC expand membership to other primary care professions in order to more accurately reflect the interdisciplinary nature of primary care.

NPs are already playing an important role in BC’s healthcare system, despite being underrepresented in the primary care system. Particularly, NPs are being utilized in specialized roles, including the provision of care in rural and remote communities which has a positive impact on the provincial healthcare budget by reducing the demand for acute services. It is expected that an expansion of the NP role will facilitate greater savings to the provincial healthcare budget and ensure more British Columbians receive access to primary care services, especially for individuals without access to a family doctor. BC’s primary care reform initiatives have maintained a physician-centred primary care model instead of moving towards team-based care. However, despite an investment of more than $1 billion, there has been no observed change in physicians’ practice patterns.
(Lavergne, Peterson, McKendry, Sivananthan, & McGrail, 2014). There remains an unmet demand for primary care in BC and this capstone argues that the full utilization of NPs is necessary to meet this demand.

The discussion involving NPs in primary care will be ongoing. It is expected that the MoH will encourage the use of Primary Care Homes/Medical Care Homes in the future delivery of primary care. This new model of primary care encourages interdisciplinary collaboration, although it remains unclear how the NP role will be integrated into the primary care system. The inclusion of NPs as essential members of primary care teams and their greater utilization will increase access to high-quality, timely primary care services for British Columbians.
References


http://dx.doi.org/10.1787/health_glance-2015-en


Appendix A.

Interview Participants

Table A1: List of Interviewees

<table>
<thead>
<tr>
<th>Nurse Practitioners</th>
<th>Interview Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathleen Fyvie</td>
<td>December 1, 2016</td>
</tr>
<tr>
<td>Nurse practitioner in primary care</td>
<td>December 13, 2016</td>
</tr>
<tr>
<td>Nurse practitioner in primary care</td>
<td>December 20, 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individuals with direct experience working with NPs</th>
<th>Interview Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wendy Bowles</td>
<td>December 2, 2016</td>
</tr>
<tr>
<td>Primary care administrator</td>
<td>December 13, 2016</td>
</tr>
<tr>
<td>Health policy consultant</td>
<td>December 1, 2016</td>
</tr>
<tr>
<td>Nursing policy researcher</td>
<td>December 12, 2016</td>
</tr>
<tr>
<td>Nursing policy consultant</td>
<td>January 24, 2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individuals familiar with the NP discussion from other professions</th>
<th>Interview Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians advocate</td>
<td>January 26, 2017</td>
</tr>
<tr>
<td>Midwives advocate</td>
<td>February 8, 2017</td>
</tr>
</tbody>
</table>
Appendix B.

Case Studies

Australia

Primary care in Australia is generally delivered by a physician working in a private practice remunerated by FFS. Primary care physicians tend to concentrate their practices in urban, affluent communities, which has created an unequitable distribution of health services across the country (Carter, Owen-Williams, & Della, 2015). Historically, NPs have been used to fill the gaps in service for rural communities and one of the cited goals associated with the NP role is to increase access to care and expand the services available to patients (Delamaire & Lafortune, 2010; Currie, Chiarella, & Buckley, 2016). An aging population and rise in chronic health conditions is putting pressure on the Australian healthcare system to increase their workforce. The strong advocacy work of nursing associations coupled with political desire to develop the NP role has resulted in a number of legislations that further NP role implementation. However, NPs still experience restrictive regulation and formal opposition from physicians.

NPs were first introduced to Australia in 2000 but the government has demonstrated their willingness to facilitate NP development by addressing barriers to role implementation through three significant legislative changes. First, in 2002 the Australian government introduced budget initiatives to provide financial support to general practices that utilize NPs (Parker et al., 2012). This was supplemented by five additional budget initiatives in 2010 (Parker et al., 2012). Second, in 2010 the Australian government introduced the National Scheme, a national standard registration of healthcare professionals, which facilitated health professionals' mobility and scope-of-practice across states/territories. Prior to this, all healthcare professionals were regulated by the individual state/territory which created variability in role definitions (Maier, 2015). Third, in 2010 the Australian government gave NPs the authority to bill to the Medicare Benefit Schedule (MBS) and to prescribe to the Pharmaceuticals Benefit Scheme (PBS). These adaptive changes have resulted in a rapid increase in the NP workforce, with the number of NPs jumping from 400 to 1000 between 2010 and 2013 (Delamaire & Lafortune, 2010; Carter et al., 2015). It has also led to the creation of NP private practice services which tend to
be community based, located in rural communities to provide care for patients with chronic and complex needs (Currie et al., 2016).

Similar to other jurisdictions, NPs in Australia faced significant opposition from the medical profession as the role was being developed (Currie, 2016). NPs in Australia were able to overcome these objections by advocating for change as a unified lobby. In 2009, the National Health and Hospital Reforms Commission identified that outdated legislation prevented some health care professionals from practising to their full scope-of-practice. To act on this policy window, nursing stakeholders from across Australia “convened in recognition of the need for interlinked networks of activists to promote buy in, engage media, and capture the ear of government to achieve strategic social objectives” (Cashin, 2014, p. 551). They created a coalition of National Nursing Organizations, a unified lobby to eliminate the barriers affecting NP role implementation, especially the restriction of access to the MBS and PBS (Cashin, 2014).

As a result of the 2010 legislative changes, NPs working in private practice and in collaboration with a medical practitioner can obtain MBS and PBS numbers, which allows them to bill the Medicare system and prescribe medications. Remuneration is based on specific item numbers, with scheduled fees that range from A$9.20 to A$56.3011 (Parker et al., 2012). However, many barriers remain for the NP scope-of-practice. One challenge is that NPs only have four MBS codes (Table B1), which restricts the type of care they can provide and has led to the duplication of care between private practice NPs and general practitioners (Currie et al., 2016). An MBS number is required to refer patients to specialists and to request pathology or diagnostic services despite the fact that most NPs work in the public health system and cannot obtain an MBS number (Carter et al., 2015). A second challenge is that NP seeking to obtain a MBS and PBS number are required to first obtain a collaborative agreement with a physician. This condition has been criticized for giving physician professional control over NPs (Carter et al., 2015). Indeed, Currie et al. (2016) note that this condition was developed to appease the Australian Medical Association’s opposition to NPs gaining access to MBS and PBS numbers. Finally, Carter et al. (2015) identified a misalignment between NP accreditation requirements for NPs

11 Scheduled fees for general practitioners delivering a comparable service ranges from A$34.30 to A$97.80 (Parker et al., 2012).
and the necessary skills for the role. Prior to becoming accredited as a NP, an individual must be registered as a nurse and have at least three years of full-time experience in advanced practice nursing within a six-year period. Most APN roles in Australia are within hospitals and often focus on a specialty area. This prevents NPs from gaining the breadth of knowledge and experience necessary to excel in primary care and to meet their patients’ needs.

**Table B1  Nurse Practitioner MBS Items**

<table>
<thead>
<tr>
<th>MBS Item</th>
<th>Descriminator</th>
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<tbody>
<tr>
<td>82200</td>
<td>Professional attendance by a participating nurse practitioner for an obvious problem characterized by the straightforward nature of the task that requires a short patient history and, if required, limited examination and management.</td>
</tr>
</tbody>
</table>
| 82205    | Professional attendance by a participating nurse practitioner lasting less than 20 minutes and including any of the following:  
  a. taking a history;  
  b. undertaking clinical examination;  
  c. arranging any necessary investigation;  
  d. implementing a management plan;  
  e. providing appropriate preventative health care, for 1 or more health related issues with appropriate documentation. |
| 82210    | a. taking a detailed history;  
  b. undertaking clinical examination;  
  c. arranging any necessary investigation;  
  d. implementing a management plan;  
  e. providing appropriate preventative health care, for 1 or more health related issues with appropriate documentation. |
| 82115    | Professional attendance by a participating nurse practitioner lasting at least 40 minutes and including any of the following:  
  a. taking a detailed history;  
  b. undertaking clinical examination;  
  c. arranging any necessary investigation;  
  d. implementing a management plan;  
  e. providing appropriate preventative health care, for 1 or more health related issues with appropriate documentation. |

*Source: Australian Government Department of Health, 2014*

Australia has taken significant steps in the role implementation of NPs since 2010 and has seen a steep growth in the number of registered NPs. It is clear that a highly regulated system and advocacy from united nursing associations have facilitated this role
development, but NPs still face significant opposition from the medical profession and restrictive legislation that hinders their ability to deliver care to their full scope-of-practice.

United States

Primary care physicians in the US mainly work in private practice and are paid either directly by the patient or through their private health insurance provider. NPs were first introduced in the US during the 1960s when physician shortages in rural or inner-city areas coupled with an increased demand for health care services following Medicare and Medicaid legislation created an immediate need for more health care professionals (Delamaire & Lafortune, 2010). Today, there are over 222,000 NPs licensed in the US and most of them (83.4 percent) are trained to work in primary care settings (American Association of NPs [AANP], 2016) and both the Institute of Medicine and the Affordable Health Care Act have emphasized the important role NPs have as primary care providers in the delivery of high-quality care (Olshansky, 2011). While the NP role is fairly well developed in the US, NPs still face significant challenge, especially variation in scope-of-practice regulations between states and the professional opposition of medical associations.

In the US, states have the authority to regulate the scope-of-practice of health practitioners, which has led to significant variability in the NP role across the country. This regulation largely varies in regard to whether or not NPs can practise and prescribe medication independently or if they are required to collaborate with a physician (Delamaire & Lafortune, 2010). According to Mullinix and Bucholtz (2009), 23 states allow NPs to practice without requiring physician involvement while 24 states require some degree of physician supervision. This has forced the NP workforce to migrate from highly restrictive to less restrictive states, ultimately limiting patients’ accesses to services in some areas (Naylor & Kurtzman, 2010). Rural states, such as Alaska, are more likely to allow NPs to practise independently and NPs are often the only practitioner for a rural community (Delamaire & Lafortune, 2010).

Some physicians have recognized that the utilization of NPs can increase their profitability. By employing NPs to serve patients on Medicare or Medicaid, the physician has more time to treat patients with private insurance at a higher fee for the same service
(Mullinix & Bucholtz, 2009). However, in states that allow third-party reimbursement\(^\text{12} \) of NP services, the insurance provider generally reimburses NPs at 75 to 85 percent of what physicians are paid for the same service (Naylor & Kurtzman, 2010). Unequal reimbursement for NP services has been criticized as “undercompensating NPs for their skills” (Mullinix & Bucholtz, 2009, p. 93) and is cited as a barrier that prevents NPs from practicing independently. NPs are also allowed to ‘incident bill’ (or ‘shadow-bill’ as it’s referred to in BC), which requires NPs to be directly supervised by a physician and then bill under the physician’s provider number and be reimbursed at the full physician rate (Naylor & Kurtzman, 2010). In states where third-party reimbursement of NP services is restricted, physicians may bill the insurance provider for the NP’s services while paying NPs a salary; this allows physicians to keep the difference (Mullinix & Bucholtz, 2009).

Despite the push for NPs to be autonomous care providers, Olshansky (2011) emphasizes that NPs are unique members of collaborative care teams and should be viewed as such rather than simply physician extenders that “fill the gap” in underserviced areas. Clarin (2007) notes a number of barriers to NP-physician collaboration, including a lack of physician knowledge regarding NPs’ scope-of-practice and educational background; different definitions of collaboration and whether it means NPs practice under physician supervision or independently; negative attitude and a lack of respect for the NP; and poor communication between both practitioners. These challenges may stem from the continued resistance of the NP role from the medical profession. The American Medical Association (AMA) and the American College of Physicians have long opposed APNs out of a fear of increased competition (Delamaire & Lafortune, 2010; Naylor & Kurtzman, 2010). Nursing associations have attempted to address their concerns but the AMA has opposed many of the recommendations in the Institute of Medicine’s Future of Nursing report and argue that physicians must supervise and consult NPs regularly (Delamaire & Lafortune, 2010; Olshansky, 2011).

The US has been developing the NP role for much longer than many high-income countries, but continues to face numerous challenges in its role implementation. Specifically, state authority prevents unified regulation of the NP scope-of-practice and

\(^{12}\) Third-party reimbursement refers to Medicare, Medicaid, or private health insurance.
ongoing opposition from the medical profession prevents the full utilization of NPs across the US.

**United Kingdom**

Primary care in the UK is provided by general practitioners who operate as independent contractors but practise in group practices that have an average of 24 staff members, including five physicians and five nurses (Delamaire & Lafortune, 2010). Physicians are remunerated using a mixed model scheme that includes capitation and ‘pay-for-performance’ incentives\(^\text{13}\), which has been successful at encouraging the development of interprofessional care teams (Delamaire & Lafortune, 2010). Similar to other high-income countries, the UK is struggling to contain health care costs under an increased demand for services, a shortage of physicians, and underserviced communities (Sibbald, Laurant, & Reeves, 2006). NPs have been utilized as a response to these challenges and recent reforms are uprooting the traditional model of the physician as “the principal providers of primary care and gatekeepers to other health services” (Sibbald et al., 2006, p. 10). While NPs are increasingly important health care practitioners in the UK, there is no formal licensing criterion for NPs which has created inconsistency across the healthcare system. Additionally, the absence of a clear framework for the nursing profession makes it challenging to determine the direction of NPs in the UK (Por, 2008).

NPs (often referred to as advanced nurse practitioners) were first introduced to the UK in the 1970s and the role has developed in an ad hoc manner (Delamaire & Lafortune, 2010; East et al., 2015). Compared to countries such as Canada, the US, and Australia, the UK does not regulate NPs except for allowing prescriptive authority to specially trained nurses (Maier, 2015). Rather, employers have the discretion to identify the NP role for each specific practice. East et al. (2015) explains that proponents of this “permissive approach” argue that it “bolsters innovation and encourages expanded roles responsive to local service needs” (p. 1012). It has also reduced overly restrictive scope-of-practice barriers that affect NPs practising in other countries. However, this role flexibility has caused significant variation and inconsistency between job titles, educational training,

\(^{13}\) Delemaire and Lafortune (2010) report that these incentives make up 25 percent of general practitioners’ income.
services provided, and job grades by NPs across regions (Delamaire & Lafortune, 2010; Maier, 2015; East et al., 2015). For example, despite Masters Degrees being a general minimum requirement for NPs, researchers have found that only 15 percent of UK APNs practising under this title had graduate level training (East et al., 2015). The inconsistency of the NP role has also made it difficult for researchers to evaluate their impact on the healthcare system (East et al., 2015).

National healthcare reform efforts beginning in the 1990s have facilitated the development of the NP role in the UK (Delamaire & Lafortune, 2010). The 1990 GP contract introduced ‘pay-for-performance’ incentives that encouraged physicians to provide chronic disease clinics and to meet population target rates for some services (Sibbald et al., 2006). Physicians began to hire nurses to provide some of these services and the collaboration between practitioners became a successful way to meet these performance targets (Sibbald et al., 2006). The 2004 GP contract continued to emphasize ‘pay-for-performance’ incentives to achieve “quality-of-care targets for a range of common clinical conditions” (Sibbald et al., 2006, p. 10). Additionally, the 2004 European Working Time Directive regulations reduced the number of hours junior doctors could practise which created a service gap that was filled by increasing the demand for NPs (Delamaire & Lafortune, 2010). Additional policy initiatives, such as NHS walk-in centres, NHS Direct\footnote{A 24-hour telephone health service that is staffed by NPs.}, and Personal Medical Service (PMS) pilots\footnote{The PMS pilots allow local health authorities to define the scope and quality of services that will be provided and negotiate contracts with health practitioners. This model provides physicians greater financial security and reduces unnecessary bureaucracy associated with national GP contracts. It has also encouraged a more mixed health care workforce and has allowed for the creation of nurse-led PMS pilots (Walsh et al., 2003).} have facilitated and expanded the NP role (Horrocks et al., 2002; Sibbald et al., 2006).

Unlike other countries, the NPs in the UK have not faced much opposition from the medical profession. Delamaire and Lafortune (2010) credit this to the different organization and financing of health care services, specifically the incentives primary care physicians have to work in group practices and to collaborate with NPs. Government initiatives have facilitated the development of the NP role, but the lack of clear regulation and direction of the nursing profession restricts the effective role implementation NPs.
Ontario

NPs were first introduced in Ontario in the 1970s, delivering care in private physicians’ practices in urban centres (DiCenso et al., 2010). The NPs were paid directly by physicians, who were remunerated by FFS. The lack of a sustainable funding model for NPs led to the failure of this initiative (DiCenso et al., 2010). In 2000, the Ontario government once again introduced NPs into FFS private physicians’ practices but this time in rural and underserved communities. The provincial government paid NP salaries and some of the overhead costs associated with their practice; this model proved to be relatively successful (DiCenso et al., 2010). More recently, the Ontario Ministry of Health and Long Term Care (MoHLTC) has worked to reform the province’s primary care system through the introduction of innovative practice settings that emphasize patient enrollment, care delivered by interprofessional teams, and alternative remuneration methods for physicians. Family Health Teams (FHT), introduced in 2005 and described as “the provincial government’s flagship initiative in primary health care renewal” (Hutchison et al., 2011, p. 266), along with Community Health Centres (CHC) were two provincial initiatives that emphasized multidisciplinary primary care. Between 2002 and 2011, the number of physicians in Ontario working in interprofessional teams jumped from 176 to over 2500 (Hutchison et al., 2011). Following these reform initiatives, NP role implementation has developed further in Ontario than any other province in Canada and today 58 percent of Canada’s NP workforce practices in Ontario (CIHI, 2015). The shift towards team-based primary care, coupled with legislative changes that expanded NPs’ scope-of-practice, and the creation of more provincially funded positions all contributed to NP role implementation in Ontario.

A survey of Ontario NPs conducted by Koren, Mian and Rukholm (2010) found that primary care NPs worked primarily in CHCs (32 percent), private physicians’ practices (23 percent), and FHTs (15 percent). NPs are more likely to be practising in underserviced areas and around 40 percent of primary care NPs work in smaller towns or rural communities (Koren et al., 2010). One example of this is NP-led clinics, which were purposefully introduced to areas where a high percentage of the population lacks a regular

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16 Community Health Centres were first established in Ontario in the late 1970s but re-established in 2004.
healthcare provider (DiCenso et al., 2010). The first NP-led clinic was opened in 2006 and there are now 26 NP-led clinics across Ontario. The main difference between NP-led clinics and more traditional models of primary care delivery is a lower ratio of physicians to NPs and the role of physicians as consultants rather than primary care providers (DiCenso et al., 2010).

NPs are now relatively well utilized across Ontario but they faced a number of challenges during the development of the role and into the present. First, NPs continue to experience barriers in practising to their full scope-of-practice due to slowly changing legislation; in 2010, NPs reported being unable to order the majority of necessary drugs and diagnostic tests needed by their patients (Koren et al., 2010). Second, while 87 percent of NPs reported that their main collaborating physician understood the NP role and supported them to their full scope-of-practice, nearly half reported that they did not have positive relationships with physicians outside of their daily practice (Koren et al., 2010). Additionally, the Ontario Medical Association (OMA) was strongly against the development of NP-led clinics and it is the only model of primary care delivery introduced within the last decade that was not a product of negotiations between the MoHLTC and the OMA17 (DiCenso et al., 2010). The majority of NP positions in Ontario are funded by the MoHLTC (Koren et al., 2010), which indicates that the responsibility of NP role implementation continues to fall on the provincial government and may reflect conflict between the NP role and organized medicine. Finally, Koren et al. (2010) found significant differences “in NP funding, remuneration, annual gross income, and salary satisfaction when compared across practice settings” (p. 49), which have may have long-term effects on the sustainability of the NP role.

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17 The Physicians Services Committee was created in 1996, between the Ministry of Health and Long Term Care and the Ontario Medical Association, to negotiate the implementation of new models of primary care.