What is the Policy Landscape for Consideration of Nurse Anesthetist Practice in British Columbia?

by

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Abstract

This health policy analysis investigates the contextual landscape and possible alternatives for new legislation and regulation of a prospective role for nurse anesthetists in British Columbia (BC), Canada. Principles of basic analysis are used to address the major concepts of context, process, and actors. The normative perspective allows consideration of the influence of values in decision-making processes. American and Canadian advanced practice nursing roles, such as the Certified Registered Nurse Anesthetist, and Nurse Practitioner, are examined for their pertinent history, including the legislative and regulatory structures that govern them. Facilitators and barriers to new role implementation add further contextual detail to this investigation. Values of decision-makers are considered in concert with past policy processes to develop viable and practical policy alternatives for the implementation of nurse anesthetists in BC.
Preface

This dissertation is original, unpublished, independent work by the author, Julie Cinel.
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List of Abbreviations

AANA- American Association of Nurse Anesthetists
APN- Advanced Practice Nurse
APRN- Advanced Practice Registered Nurse
ARNBC- Association of Registered Nurses of British Columbia
ASA- American Society of Anesthesiologists
BC- British Columbia
BCAS- British Columbia Anesthesiologists' Society
BCMA- British Columbia Medical Association
BCNPA- British Columbia Nurse Practitioners Association
CAT- computerized adaptive testing
CHSRF- Canadian Health Services Research Foundation
CIHR- Canadian Institute for Health Research
CINAHL- Cumulative Index to Nursing and Allied Health Literature
CMA- Canadian Medical Association
CMS- Centers for Medicare and Medicaid Services
CNA- Canadian Nurses Association
CNM- Certified Nurse Midwives
CNO- College of Nurses of Ontario
CNPI- Canadian Nurse Practitioner Initiative
CNS- Clinical Nurse Specialist
CPSBC- College of Physicians and Surgeons of British Columbia
COA- Council on Accreditation of Nurse Anesthesia Educational Programs
CRNA- Certified Registered Nurse Anesthetist
CRNBC- College of Registered Nurses of British Columbia
CNP-Certified Nurse Practitioners

DOH- Department of Health

LACE- Licensure, Accreditation, Certification and Education

MLA- Members of Legislative Assembly

NBCRNA- National Board of Certification and Recertification of Nurse Anesthetists

NCE- National Certification Exam

NCSBN- National Council of State Boards of Nursing

NP- Nurse Practitioners

NPA- Nurse Practice Act

NP-A- Nurse Practitioner-Anesthesia

OAC- Operative Anesthesia Committee

OSCE- Objective Structured Clinical Examination

PEPPA Framework- A Participatory, Evidence-Based, Patient-Focused Process for Advanced Practice Nursing Role Development, Implementation and Evaluation

SBON R&R- State Boards of Nursing Rules and Regulations

US- United States
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Chapter 1. Policy Landscape for Nurse Anesthetists in BC

Anesthesia care in British Columbia (BC) has become a subject of political controversy due to a concern over patient care resulting from a shortage of qualified health care professionals. There has been a documented insufficiency of anesthesiologists in BC and throughout Canada for many years (British Columbia Anesthesiologists’ Society (BCAS), 2012; Craig, Byrick & Carli, 2002; Donen, Reid & Blackstock, 1999; Tessler, Shrier & Steele 2008). In this country, physicians are the only legislated professionals qualified to administer anesthesia. With the announcement by a former health minister that nurse anesthetists could function as alternative care providers to address this issue, there is question as to whether legislative changes are forthcoming in this province. The creation of a new health care role for nurses in this capacity would require changes in policy on many levels, including legislation and regulation. Besides the governing authority, where policy changes are generated and acted on, actors and organizations on many levels would contribute to a change of this magnitude in the health care system. Policy direction for the implementation of a new health care role for nurse anesthetists in BC would inevitably be affected by the positions and goals of the individuals involved in the process. It is important to understand the complex process of policy change as it pertains to health care issues in this province since this public entity is often influenced by political factors. The introduction of a new health care role, such as a nurse anesthetist, provides the occasion to investigate the many strata, processes, and actors that are involved in, and affected by, these types of changes. Prior to a change of this magnitude, the contextual landscape and the many alternatives that exist for the successful integration of a new health professional need to be understood and carefully considered.
Following a decision by government to proceed with the implementation of a new nursing role, appropriate legislative changes would follow, including amendments to the Health Professions Act. Under the direction of the Ministry of Health, the College of Registered Nurses of BC (CRNBC) would be required to create a regulatory model for these practitioners including registration requirements, practice standards, and quality assurance protocols. These parameters have been created by CRNBC for Registered Nurses and Nurse Practitioners (NPs). A new role for nurses in BC in the specialty of anesthesia would require new regulation due to the wide practice variation that exists between the existing and potential practice scopes. The approach used by CRNBC to accomplish this task (and ensure the safety of the public is upheld) would require thoughtful, informed, and detailed attention. Given there are no existing regulations for nurse anesthetists in BC, several options exist for how this could best be accomplished. These policy processes would require ample planning, investigating and stakeholder input.

The extent to which the Ministry will pursue this matter remains to be seen. A contextual analysis of this policy landscape will serve to explore and examine some of the issues inherent in such a change process, if the government were to act on this issue. Leslie Pal (2010) defines policy analysis as “the disciplined application of intellect to public problems”. There are many ways in which a policy analysis might be conducted. The specific purpose of this inquiry is to illuminate the complexities and structures inherent in this policy arena, exposing differing values and perspectives existing with regards to the issues that would likely materialize in this context. While many schools of thought exist on how best to conduct analyses related to policy, there seems to be agreement that this type of inquiry should be disciplined and systematic (Pal, 2010).
For these reasons, this investigation will draw on three methodological philosophies. The content of this document will be carefully presented in a logical format.

The theoretical perspectives I have chosen for this analysis work well in concert and provide a comprehensive means by which to analyse this context. This inquiry will utilize and synthesize existing literature as an evidence base, and also amalgamate publicly accessible information drawn from individuals involved in policy processes. The overall approach to this investigation will utilize principles synonymous with a “basic analysis” as described by Patton and Sawicki (1993). This style of policy examination appreciates the significant contribution of smaller scale, practical inquiries that can be helpful to decision-makers. These analyses are able to provide an understanding of the issues, without the extensive use of time and resources that larger-scale studies occupy (Patton & Sawicki 1993). Secondly, the complex nature of policy can be more easily comprehended by considering the central concepts of context, process, and content, as well as the actors involved. This interplay is depicted in Walt and Gilson’s (1994) Health Policy Triangle (see Appendix A) (Buse, Mays & Walt, 2005). The model depicts the interaction of these factors that is key to any policy investigation. The third philosophy utilized in this investigation is drawn from Robert and Zeckhauser’s (2011) article on normative policy analysis. The normative perspective emphasizes the inevitable influence of individual values on decision-making processes. Since a change in policy that would see the introduction of a new health care provider (such as a nurse anesthetist) would be a controversial issue with many differing perspectives, an awareness of individual and group values that could potentially impact the process will provide a greater depth of contextual detail to this analysis. A broader understanding of some of the issues that will result from a change in policy will be derived by performing a basic analysis using the central concepts illustrated in the policy triangle,
considering the influential values of those involved in the process. The goal here is to provide a comprehensive account of some of the foci and alternatives relevant to this policy process, in an effort to provide the reader with a deeper understanding of the context.

Following a contextual overview highlighting the pertinent historical and relevant background of the issues, the methodology will be more deeply explored. Subsequent chapters will strengthen our understanding of the policy landscape. I will begin broadly by presenting an overview of the system used in the United States (US) as an example of a country in which nurse anesthetists have been successfully integrated into the health care system and practice autonomously with a full scope. Next, the Canadian context will be investigated, with particular attention to the manner in which advanced practice nurses have evolved. As the analysis continues, I will provide an account of the relevant policy context of BC, outlining the actors, their goals and values, and roles in policy change that would see the introduction of nurse anesthetists in this province. Next, the introduction and evolution of the NP in this jurisdiction will be discussed. These nurses are relatively new to BC and represent an example of an advanced practice role that has recently undergone the formation of new governing legislation and regulation. Following this, I will systematically present the facilitators and barriers to the implementation of advanced practice nursing roles that have been identified internationally, nationally, and locally. An understanding of these factors can promote more informed decision-making for stakeholders involved in these processes. Having established the contextual foundation, policy alternatives for legislation and regulation will be revealed. National considerations will be followed by some of the existing options for decision-makers who would be involved in policy formation for this new health care role in BC. This includes alternatives
for government regarding legislation, and also for regulators developing registration requirements, practice standards, and continuing competence assurances.

In this paper, context, process, actors, and content of the landscape surrounding new policy for nurse anesthesia practice will provide the foundation for this basic analysis. The detailed contextual examination of nurse anesthesia practice internationally, and advanced practice nursing in Canada will inform the possible alternatives for decision-makers that follow. This document is intended to illuminate the process of policy change in this capacity. It will encompass some of the complexities involved in, perspectives that exist, and possible alternatives for direction regarding nurse anesthesia care in BC. While I have no role in policy-making, it is my hope that the information provided in this analysis will be useful to decision-makers, or any individuals involved in and interested in understanding the differing viewpoints, values, processes, and alternatives of policy change in this regard.
Chapter 2. Contextual Overview

This overview is intended to provide a foundation for this analysis by outlining the past and current context relating to nurses and anesthesia care. We can better understand the issue this analysis is addressing with an examination of the history of anesthesia care in this country as well as the US. A look at nursing in Canada where advanced practice roles are part of the health care system provide the reader with an idea of the direction this country has taken with nursing in expanded scopes. Finally, a discussion about care models utilized both in Canada and internationally, offers some background on the types of roles that exist for those providing anesthesia care, including the potential capacity with which nurses in BC could practice. In considering a future role for nurse anesthetists in this province, an understanding of the current context is required. Since the idea of this basic analysis is to present a detailed account of the policy landscape, it is important to establish a starting point from which to develop further knowledge.

History of Anesthesia Care

Historical insight to anesthesia administration in Canada provides important context to consider the current political issue of legislating nurses to practice this specialty in BC. Anesthesia as a physician-dominated practice in this country has come to prevail, while in the US the health care service is largely provided by nurses. Recognizing the public and political drivers that led to this discrepancy can deepen our understanding of the issue and provide perspective on change incentives. Anesthesia administration and pain control have been a documented part of nursing practice since the late 19th century (Dunlop, 2008). While this practice has been labeled “the oldest recognized specialty in nursing” (MacDonald, Schreiber & Davis, 2005), the role has never formally evolved in Canada.
Historical inquiries note a divergence in the way the Canadian and American health care systems evolved in this capacity. There is evidence that both countries utilized nurses to provide anesthesia to patients because of the need for more personnel as surgical procedures became more advanced. With the discovery of the germ theory of disease and new antiseptic techniques, charitable hospital care was challenged, paving the way for middle and upper class individuals to undergo surgery in hospitals (Fairman & Lynaugh, 1998) and a subsequent increase in the need for personnel. Additionally, nurses were also more accessible in multiple hospital settings (including rural areas) where medical staff was not (Dunlop, 2008). Professional boundaries were not clearly set since formalized education in anesthesia was not available in Canada until after 1934. Literature suggests that “great debates were taking place in the early 20th century as to whether physicians or nurses should administer anesthesia and what training should be mandatory for this specialty” (Dunlop, 2008). Historical inquiries imply that influential individuals coupled with pivotal court proceedings following surgical events resulting in deaths, had a significant impact on present day practices. While the US had advocates for nurses practicing anesthesia, such as William and Charles Mayo (founders of the Mayo Clinic), Canada had strong physician voices advocating for anesthesia to be strictly medical. In the US, court cases involving the legality of nurses administering anesthesia ruled in favor of nurses continuing in this capacity. In Canada, court rulings deemed the surgeon responsible in the event of adverse proceedings if a non-medical professional was administering the anesthetic, discouraging the use of nurses for this specialty (Dunlop, 2008). While human resource shortages and medical advancements brought nursing into the field of anesthesia care, influential groups and court rulings appear to have been the main reasons for the differences in the sustainability of these roles in the American and Canadian systems.
While it appears there has always been controversy over whether anesthesia is a medical or nursing profession, the American Association of Nurse Anesthetists (AANA) reconciles that anesthesia care is deemed a medical profession when it is performed by medical staff, and when performed by nurses, it is a nursing profession (AANA, 2013a). In the US, nurses administer roughly 60% of all anesthetics, and up to 70-80% in rural areas (Schreiber & MacDonald, 2003). In Canada, anesthesia remains a medical specialty; however, human resource shortages are once again raising concerns in BCs operating rooms. In early 2012, the issue of anesthesia care received heightened publicity as anesthesiologists in this province threatened to withdraw services in protest of issues surrounding patient care. “The British Columbia Anesthesiologists’ Society (BCAS) claimed there was a shortage of doctors and was unhappy with the lack of a fee agreement with the province” (CBC News, 2011). On March 30 of 2012, just prior to the scheduled withdrawal of elective anesthesia services, the BC Supreme Court ruled that anesthesiologists could not legally follow through with this action until an injunction request made by the health authorities was ruled upon. That ruling was set to take place on April 20th, 2012 (BC Health Authority, 2012). On April 18th, the BCAS and the government agreed to adjourn the court date set for making a permanent ruling on the injunction, while efforts to resolve the dispute continued (Surrey Leader News, 2012). Amidst the controversy, Mr. Mike de Jong, (BC Minister of Health at the time) announced his government’s intention to integrate a new health care role for nurse anesthetists that echoes the US tradition, saying “it requires legislative change, and yes we are prepared and preparing to make that legislative change so we would have a larger body of professionals capable of providing this service on a reliable basis” (Globe & Mail, 2012). Given the information that the public has been presented regarding the idea to integrate a new role for nurses in anesthesia care, it would appear that this plan is in its
infancy. For the successful implementation of a new health care role, much investigation is needed to expose the issues inherent in, as well as the alternatives that exist, for such a change in policy.

_Nursing in Canada_

Nurses provide anesthesia care in varying capacities in approximately 142 countries of the world (MacDonald et al., 2005). While Canada is currently not among this group, the prospect of nurses providing anesthesia in BC would require consideration of how the role would be defined and recognized within the existing national and provincial infrastructure. In many countries, nurses practicing anesthesia are considered advanced practice nurses. In Canada, many nurses practicing with expanded scopes have been labelled Advanced Practice Nurses (APNs), and have been part of the Canadian health care system for approximately 40 years. NPs and Clinical Nurse Specialists (CNSs) are the two nationally recognized categories of APNs. Factors such as physician supply and hospital budgets have influenced the degree of employment of these nurses (DiCenso et al., 2010). APNs are defined by the Canadian Nurses Association (CNA) in the national framework as “an umbrella term describing an advanced level of clinical nursing practice that maximizes the use of graduate educational preparation, in-depth nursing knowledge and expertise in meeting the health needs of individuals, families, groups, communities and populations” (CNA, 2008).

APN roles include direct patient care, education, research, consultation, leadership, and collaboration activities. While it appears that these roles have evolved based on specific needs of the system at different times throughout history, several challenges have come to light including lack of role clarity, title confusion, and inconsistencies in educational requirements (DiCenso et al., 2010). Although most nurses working in the field of anesthesia internationally have
completed some type of post-basic training, they are not always considered to be in advanced practice roles. Individual provinces in Canada are granted the freedom to create their own legislation to define health care roles. Even so, factors on a national level including sustainability, transferability, national support, and resources could be important considerations in developing a new health care role. In BC, a new health care role involving nurses practicing in an expanded scope would require consideration of “fit” within an already established national regime seeking to standardize roles, titles, and educational requirements. Whether this new role would be best introduced under the APN umbrella or as an independent Registered Nurse role is an important question.

NPs were introduced to the BC health care system in 2005 to help address issues of access to primary care. Integration of this new role has seen many challenges and successes over the years. In October 2012, legislation was passed that allows health authorities to offer admitting and discharging privileges to NPs (BC Ministry of Health, 2012a). While it appears that legislation allowing these professionals to practice to their full potential is evolving, many educated NPs remain without employment due to a lack of priority funding for these positions throughout the province (CBC Radio, 2012). The relevance of NP role implementation in BC is twofold. First, an appreciation for the political climate around role integration efforts might provide insight into public and professional acceptance of the prospect for nurses in anesthesia. Secondly, it may be proactive for decision-makers to have an understanding of this process as it would foster knowledge regarding similar pitfalls that might occur in the introduction of another expanded scope nursing role. Alison Roots and Marjorie McDonald of the University of Victoria produced a poster in 2005 from a government-funded project that outlined some of the factors that influenced the implementation of the NP role in this province (see Appendix B).
Among the challenges identified by these authors was a lack of stable funding to support the role, lack of physician acceptance, and difficulties with individual hospital bylaws and policies to support the new positions (Roots & MacDonald, 2005). An understanding of potential barriers and successes experienced by the implementation of NPs in the province is worthwhile if policy for a new nursing role is being considered.

In Canada, the only attempt to create a new role for anesthesia as a nursing specialty has been in Ontario with the introduction and legislation of the Nurse Practitioner-Anesthesia (NP-A) in 2007. Decision-makers in that province made an effort to work within existing infrastructure to develop a specialty role in anesthesia care under the title of NP (Pam Hubley, personal communication, 2010). A lack of human resources had led to growing surgical waitlists, closing of operating rooms, and surgeries being cancelled. This was recognized by the provincial government as problematic (OAC, 2003). Inquiries were conducted in Ontario around the turn of the century by the Expert Panel on Health Professional Human Resources, establishing the necessity of the province to make more productive use of other health care providers such as NPs (2001). With the province unable to meet the demand for anesthesia care, the Operative Anesthesia Committee (OAC), consisting of members of the Ministry of Health and Long Term Care and the Ontario Medical Association, was created to help find feasible solutions to the shortage. This committee recommended the use of Anesthesia Care Teams, and the increased use of Anesthesia Assistants to support the work of physicians (OAC, 2003). The idea of a new payment system that would allow for physician supervisory roles in the existing fee for service model was also generated. Subsequently, funding was given to the University of Toronto to create an education program supporting NP-As as members of the Anesthesia Care Team. Appendix C outlines a description of the original NP-A education program created at the
Bloomberg Faculty of Nursing at the University of Toronto. Since the inception of the new legislation and specialty NP-A education program in 2009, there have been four inaugural graduates of the program from the Bloomberg School of Nursing (University of Toronto), followed by a second cohort. The length of the program is one year for post-Master’s NPs, and two years for individuals earning concurrent NP diplomas (in Ontario, NPs do not currently require Master’s level education). See Appendix D to view a poster created by the first NP-As in Ontario regarding their experience. While the role has been legislated, NP-As remain unable to practice under this title due to lack of licensure that would follow the writing of an entrance exam. As the College for Nurses of Ontario is responsible for regulating this group of professionals, they also have the responsibility to produce the entrance exam and, as of yet, have not done so. As a result of no licensing exam and low enrollment numbers, graduates of this diploma program are not currently recognized as NP-As, rather they are considered and regulated as NPs of their designated role (adult or pediatric). There currently appear to be no plans in place to develop a licensing exam for these NPs by the college. Possible explanations for low numbers of graduates from the program include lack of available candidates, absence of licence to practice under NP-A, and high tuition costs (J. Jiang, personal communication, November 2010). While the vision for this new role was not without controversy, both physician groups and nurses had an interest in seeing the problem addressed. A new role in BC for nurses practicing anesthesia might look very different from the way Ontario has attempted to implement one; however, an awareness of some of the barriers and facilitators experienced in another Canadian province might provide insight of those that may be encountered throughout the process locally.
Care Models

In determining how a potential nurse anesthetist role would fit into the established health care system in BC, questions regarding model of care must be addressed. Nurses practice anesthesia throughout the world to varying extents depending on the region and the structure of the health care system of which they are a part. For the purposes of this discussion, we will focus on the US and Canada. Practice ranges from full-scope, autonomous administration of anesthesia (as in the US) to assistant positions with anesthesia assistants and specially trained nurses (like those in Canada). Province officials must consider what type of problem they are trying to address before choosing the model of care to implement. A full-scope practice model can be understood by looking at the American system. Certified Registered Nurse Anesthetists (CRNAs) are nurses who are educated to autonomously provide anesthesia care including preoperative assessment, all methods of anesthesia administration (general, epidural, spinal, peripheral nerve blocks, local), and post-operative care (AANA, 2012b). These professionals are self-employed and are compensated fee-for-service, or as specified by individual employers. Currently in the US, state regulations determine whether physician supervision or direction is required. As of 2001, states have the ability to “opt out” of the supervisory component and allow nurses to practice autonomously in that particular state if they meet specific requirements outlined by the federal government. So far, 17 states have chosen to opt out, while 40 states do not even have the physician supervision requirement in place (AANA, 2012c). In the US system, a CRNA has the ability to perform complete anesthesia service without a physician being present. In Canada, there are no circumstances with which an anesthetic is given without the presence of a physician. Assistive personnel are utilized throughout this country and include such roles as Anesthesia Assistants, Respiratory Therapists, NPs (as previously described for
Ontario), and RNs. See Appendix E for a full description of the Anesthesia Assistant role. While assistants are able to take on some of the duties of the anesthesiologist to improve efficiencies, there must always be a physician present for each and every surgical procedure. With the political recognition of the need for alternate care providers in anesthesia, role description and competencies of these individuals are key concerns. There are established roles across the country for health care providers in assistant roles. More needs to be known about what an autonomous role for nurses in anesthesia care might look like. With the possibility of a policy change in this respect, an understanding of the context, including legislative and regulatory alternatives for nurses practicing in this specialty, is needed.
Chapter 3. Methodology

In this investigation, I will examine the current and emerging political activity regarding the provision of anesthesia care in BC, with careful attention to the prospective role of nurses.

Policy analysis “is itself a specific form of inquiry” (Pal, 2010). Often, analysts have long periods of time and are given large budgets in order to work with complicated data to produce advice for policy makers on the best course of action (Patton & Sawicki, 1993). This inquiry differs from a large scale analysis in that it is not intended to produce a prescriptive outcome with specific recommendations. The purpose here is to identify the possibilities for policy direction in a comprehensive manner, considering various viewpoints and implications associated with different policy directions. This investigation can be considered more of a “basic analysis” as identified by Patton and Sawicki. They describe this approach as being a practical craft, rather than a science, in which the most compelling feature is whether the reader can follow its logic, can understand it, and as a result, can develop better policy (Patton & Sawicki, 1993). Basic analysis is often used to inform public decision-makers when time or resources are not available for a complex or large scale analysis. While this investigation is not intended to provide conclusive recommendations like a formal analysis might, the intention is to use rigorous and systematic approaches toward exposing the various policy alternatives. This will serve to build an understanding of the implications that might result. The goal is to provide the reader with a more informed knowledge base on potential possibilities and outcomes, applying logical reasoning approaches synonymous with the basic analysis as articulated above. This style is particularly suitable for this type of an investigation. Not all useful policy documents have to be large scale, heavily researched, and costly. Reasoned arguments play an important role in policy decisions where science may not exist to inform direction (Patton & Sawicki, 1993). The
objective here is to inform the reader about the context, the various perspectives, and the alternatives involved in creating policy to implement a new role for nurses in BC. The principles of basic analysis provide a practical foundation from which to attempt this task.

In an effort to consider this topic in a comprehensive manner, the central concepts depicted in the Health Policy Triangle Framework (Buse et al., 2005) will be applied as a basis for exploration (see Appendix A). The ways in which the actors relate to the context, process, and content can be considered thought-provoking factors providing an underlying foundation for investigating this topic. In their book, Basic Methods of Policy Analysis and Planning, Patton and Sawicki (1993) stress the importance of avoiding the “tool-box approach”, recognizing that the particular issue should determine the specific method for analysis, and not vice versa. Additionally, the analysis should be transparent and simple as opposed to complicated and difficult to follow. Because this inquiry will cover several different topics regarding the policy landscape for nurse anesthesia and is unique in content and purpose from a more traditional policy analysis, this advice is relevant. The central concepts (actors, context, process, and content) identified in the Health Policy Triangle will provide the footing for approaching, thinking, and formulating ideas about the policy issues as they are investigated.

The philosophy outlined in Robert and Zeckhauser’s (2011) article on normative policy analysis offers another useful perspective for the purposes of this inquiry. These scholars explicate the significant difference between positive and normative analysis; the former representing a factual or “what is” perspective, versus the latter, a more values-based lens that identifies “what action should be taken”. Their view supports the idea that all policy prescriptions are affected by the values of people involved in the process. Without undermining the importance of what is factual and truthful, the normative perspective recognizes the
contributions and influences of individual or group values in policy domains. Given the purpose of this investigation, that is to explore the various contexts, processes, perspectives, alternatives, and implications on issues related to a change in policy with regard to nurse anesthesia in BC, a normative perspective is useful.

This analysis is organized into various chapters examining different aspects of anesthesia care, as outlined above. For each topic, existing literature was collected (including published, grey, government documents, news releases, position statements, etc.) from databases including CINAHL, PubMed, and Medline; as well as internet, newspapers, organizational websites, and public government publications. Government and media websites were checked regularly for any new developments regarding policy change, or intentions of decision-makers related to this topic.

Consultative interviews took place as necessary in an effort to expand my knowledge base and bring to light the policies, procedures, and practices that offered perspective on the issues. Conversations based on a participant’s expertise or position, occurred in accordance with the preferred method of the participant, either phone or email. At the time, I introduced myself (as a University of British Columbia Master’s student) and articulated the purpose of the interview. It was made clear that any information communicated would be used only for the purposes of this document and to provide an understanding of the context, goals, processes, and possible implications of policy change regarding anesthesia care in BC. Interview questions and direction were decided upon in consultation with my supervisor (Dr. Sally Thorne) prior to commencement. I took notes during the interviews to ensure accurate recollection of the information that was discussed. Interviewees were asked about their preferences to be named in the final document, and were offered an opportunity to read the manuscript when completed to
ensure I correctly interpreted the information they provided. I made every effort to uphold professionalism and diplomacy throughout the interviews, and thanked the participants for their contributions.

Chapter topics were systematically explored with the central concepts of the policy triangle in mind. New material discovered throughout the process of the investigation was examined for linkages to context, process, content, and actors. Individual topics and organization of the document emerged as the investigation unfolded. The committee was consulted when direction and document review were needed.

The goal of this paper is to provide a deeper understanding of the complexities involved in the policy landscape around implementing a new role for nurses in anesthesia care in BC. It was clear that this had been accomplished when I had successfully and comprehensively examined the contextual landscape of the policy arena, including the relevant processes, actors, and perspectives involved in nurse anesthesia (and APN) practice both internationally and within Canada. An identification of the barriers and facilitators regarding the legislative and regulatory parameters involved in implementing a new role for nurses in anesthesia care in BC provided the additional information needed to produce the policy alternatives in the final chapter.

**Methodological Issues**

In an effort to perform a high quality contextual analysis of a policy process, several significant methodological components were incorporated into the study. These included credibility, objectivity, and ethical considerations. Credibility refers to the extent that the data represents reality and has been correctly interpreted (Polit & Beck, 2008). I ensured this throughout the analysis process through discussions and debriefings with my supervisor, and verification with interviewees as the process unfolded. Establishing credibility assisted me to
create trustworthy and respectful relationships. Researcher objectivity was also important to this investigation, given the controversial nature of the issue and the various viewpoints existing on these issues. I felt it was important to have an awareness of my personal biases and motivations in order to ensure these would not impact the quality and objectivity of my analysis. Open communication with my supervisor throughout the process helped promote this principle. I made a conscious effort to continuously avoid distortion or omission of facts, manipulation of information, and plagiarism.

Ethics

This research is exempt from the requirement of institutional ethics review, as outlined by the University of British Columbia Office of Research Services Human Research Ethics Requirements Checklist for Graduate Students (UBC, 2013). The limitations outlined in this document describe instances where research can be exempt from the requirement of obtaining ethics approval. This inquiry meets the parameters for exception, because individuals involved in the interview process were invited to communicate with me in a consultative and informative capacity by virtue of their expert knowledge, and are not considered to be human research participants. Information about policies, procedures, or practices from an organizational perspective was obtained from representatives whose job includes providing this information as a part of their duties. Participants were not solicited for personal opinions, and if any were offered in the course of the communication, they were not reflected in any written text. Additionally, the material used for the purposes of this study is publicly accessible and protected by law; therefore, there is no expectation of privacy as the information is available to any and all citizens.
Chapter 4. Nurse Anesthesia in the US

Changing policy in BC to permit the introduction of a new health care role is a complex process. It would require decision-makers to ensure due diligence prior to the implementation of new regulation. A broad contextual knowledge base that includes the ways other jurisdictions have regulated similar roles, would likely be beneficial. Following a decision by government to implement nurse anesthetists into the health care system, new legislation would need to be created, and decision-makers would need to create a regulatory framework to define the practice standards of these professionals. Many challenges and options exist for those granted the responsibility to decide how a new health care worker will be integrated with the existing system. As I have established in the literature review, anesthesia assistants are already being used in perioperative settings throughout the health care system in BC (and throughout Canada); therefore, this chapter will examine the context of an autonomous role for nurses in anesthesia care. Because the US is a country with approximately 44,000 Certified Registered Nurse Anesthetists (CRNAs) who autonomously deliver full scope anesthesia services in western medical settings (the majority of anesthesia in rural settings across the nation), and has 113 accredited schools to train them (AANA, 2013d), much can be learned by looking at their system. By examining the American context, I will provide a more in-depth look at a longstanding, well established system in which many regulatory challenges have been overcome, and a successful nursing role in anesthesia care flourishes.

Federal Legislation

The American health care system is comprised of a national governing body and individual state-controlled regulations. Like Canada, the federal government provides a broad framework as well as a percentage of health care funding to be managed by individual states.
For publicly-funded health care, decision-makers within the Centers for Medicare and Medicaid Services (CMS) govern the parameters for which elderly, low-income, and disabled citizens qualify for subsidized coverage. Officials working within the federal government also determine the minimum requirements each state must abide by in the provision of health care services to the public. For example, each state must provide subsidized health insurance to all families whose annual income does not exceed the Federal Poverty Level, which in 2013 was $23,550 for a family of four (Medicaid, 2013). Individuals who do not qualify for this type of insurance are covered through their employers, buy their own coverage, or are uninsured. The majority of health care facilities in the US are privately owned and paid for through insurance claims. Public spending accounts for between 45% and 56% of U.S. health care spending (Selden & Sing, 2008). While most of the health care organization occurs at the state level, the federal government has considerable influence on the guidelines each state must adhere to, as can be witnessed in the wake of health care reform under the Obama administration. While the particularities regarding reforms to the American health care system are beyond the scope of this paper, it is important to have a preliminary understanding of the structure this system operates with, to appreciate the fit of nurse anesthetists in the system.

Supervision and Direction.

One of the most significant ways that federal legislation has influenced the practice of anesthesia by nurses in the US pertains to the direction and supervision requirement outlined in the Federal Register. In 2001, the requirements set forth by officials in the CMS (federal government) dictating that CRNAs must be supervised by physicians in health care facilities in order to receive federal reimbursement for anesthesia services, were amended. The new rule allows states to “opt out” of the federal supervision requirement. Governors can “opt out” by
sending a letter to the CMS attesting that this action is in accordance with state law, is in the best interests of the public, and that the state boards of medicine and nursing have been consulted about anesthesia services provision (AANA, 2013c). To allow for maximum flexibility in implementing the new law, there were no particular requirements set forth by the CMS to be met in state board consultations, nor do they require states to follow a public notification or administrative process (AANA, 2013c).

Supervision and direction of nurse anesthetists by physicians appears to be a complex concept that has been built into the American system for decades, and is poorly understood. According to Nutter, McLennen and Fish (1997), the American Society of Anesthesiologists (ASA) and the AANA have very different positions on the nature of supervision. AANA describes supervision or direction as dependent on a variety of different practice settings that take into account the institutional guidelines, experience, education, and capabilities of the nurse anesthetist as well as the desires and needs of the patient and health care professionals. In contrast, ASA’s position as outlined in their “ethical anesthesia” guidelines for supervision necessitates that physicians perform pre-anesthetic evaluation of the patient, prescription of the anesthesia plan, participation in the most demanding procedures in the plan (induction and emergence), following course of anesthesia at frequent intervals, remaining physically available, and providing indicated post anesthesia care (Nutter, McLennan & Fish, 1997). In a current definition of being ”immediately available” posted on ASAs website (2013a), “a medically directing anesthesiologist is immediately available if s/he is in physical proximity that allows the anesthesiologist to return to re-establish direct contact with the patient to meet medical needs and address any urgent or emergent clinical problems. These responsibilities also may be met through coordination among anesthesiologists of the same group or department”. This means
that the directing physician, taking partial payment for the service, does not need to be present for the surgery, or even in the building.

Health care institutions in the US generally use one of four models to provide anesthesia services (Schreiber & MacDonald, 2008): anesthesiologist only, CRNA only, medically supervised, or medically directed. The first two single provider models are similar to the way anesthesia is provided in Canada. One professional is responsible for the full service anesthesia of one patient at a time. Medical supervision occurs when a physician (not necessarily an anesthesiologist) oversees the practice of more than four other providers and is not always required to be on site. Medical direction describes a structure in which an anesthesiologist is involved with up to four CRNAs in a team approach, often called the anesthesia care team. In the latter case, the physician bills for half of each anesthetic that is administered upon attestation that appropriate requirements have been met. According to Schreiber and MacDonald (2010) who conducted a grounded theory study of the anesthesia care team and nurse anesthesia role in the US, medical direction and supervision of nurse anesthetists by physicians is related to third party insurers, and have no basis for practice liability whatsoever. This is because nurses are solely responsible for their own autonomous practice. The courts in the US have upheld the exemption of physician liability in anesthesia cases where individuals have attempted to lay blame for adverse events occurring in the absence of a physician in the perioperative setting (Nutter, McLennen & Fish, 1997; Schreiber & MacDonald, 2010). It appears to be widely recognized that the supervision and direction requirement is often in place as a reimbursement formality, and has little basis for the expectation of responsibility in the practice setting. Furthermore, ASA’s ethical guidelines for anesthesia provision (as presented above) match the required conditions set forth by The Tax Equity and Fiscal
Responsibility Act of 1982, which are parameters that must be signed off on each patient’s chart in order to receive payment by the insurer (Nutter, McLennen & Fish, 1997). The obscurity of supervision and direction has evolved through various interpretations of federal legislation and regulation, state agency and hospital policies, and insurance providers. These policies are deeply embedded at various levels throughout the system. Schreiber and MacDonald’s (2010) study participants describe the supervision and direction requirement as onerous, antiquated, and largely unnecessary. These authors caution the use of the team approach care model in the Canadian system due to the cost inefficiencies associated with the use of five qualified professionals doing the work of four.

Federal legislation regarding the supervision and direction of nurse anesthetists, as previously mentioned, pertains largely to the process of institutions receiving reimbursement for billings made to national health care programs such as Medicare and Medicaid. Since new legislation was written in the Federal Register in 2001 concerning the ability of states to “opt out” of the federal supervision requirements, 17 states have done so. State and agency policy are the final word on whether medical supervision and direction are required in a particular practice setting. Not all states require direction or supervision to begin with. According to AANA (2013c), “if clinical direction requirements are considered in addition to supervision, 31 states do not have a physician supervision or direction requirement for CRNAs in nursing or medical laws or regulations”. We can understand some of the context around CRNA practice in the US, including the complexity and impact of legislation, by appreciating how this policy system has evolved to reflect the practical reality of CRNA practice.
National Regulation

From a national perspective of regulation, issues of licensure, accreditation, certification, and education are important in establishing a profession. Access to care can be affected by the portability of professionals within a country. In the US, Advanced Practice Registered Nurses (APRNs) include CRNAs, Clinical Nurse Specialists (CNS), Certified Nurse Midwives (CNM), and Certified Nurse Practitioners (CNP). The National Council of State Boards of Nursing (NCSBN) is a not-for-profit organization comprised of nursing boards from all states, associate members from Canadian provinces, among others. The mission of this organization is to advance regulatory excellence for public protection by providing leadership (NCSBN, 2013a). As a collective voice of nursing regulation in the US, their goal is to promote uniformity in the regulation of nursing practice. Their work includes the APRN Consensus Model, produced in 2008 (NCSBN, 2013b). The model is heavily endorsed by several national organizations including professional associations, schools, regulatory colleges, certification boards, accreditation councils, and various societies. It was created out of an understanding that in order to maintain patient safety and access to care overall, APRN regulation needs to be unified across states. Currently, each state determines the legal scope of practice, recognized roles, certification exams, and entry level competencies, making it very difficult for these nurses to move from state to state. The document outlining the APRN regulatory model defines APRN practice, titles, population focus, new role emergence, and implementation strategies. Regulation set forth in the model includes licensure, accreditation, certification, and education (known as LACE) for the four recognized APRN roles. While the NCSBN does not specify how many states have adopted portions of the model, they recognize that there still may be variation from state to state in regulation, and have set a target date to unify regulation by 2015 (NCSBN, 2013b). The
production of this model appears to indicate that in the US there is consensus that uniformed regulation for advanced practice nursing roles is an important and worthwhile goal, to ensure increased access to valuable health care services.

_Licensure._

Once a Registered Nurse or Licensed Practical Nurse in the US has attained specific competencies to perform their unique scope of practice, nursing boards grant permission for individual practice by providing a license. Licensure as an RN is mandatory for CRNAs. This process ensures title protection, confirms that specified practices may be only legally performed by licenced practitioners, and endorses authority that is in place for disciplinary action to be taken in the event that rules or laws are violated in the interest of public protection (NCSBN, 2013b). The major licensure requirements include graduation from an approved RN program, successful completion of an exam, criminal background check, and full disclosure of other licenses, certifications, and disciplinary actions that may have occurred in the past. Uniform licensure requirements have been set forth by the NCSBN, allowing nurses to practice across state lines. This organization has developed a multistate licensure process called Nurse Licensure Compact, allowing nurses to practice in their home state as well as other participating states. There are currently 24 states who have adopted this agreement (NCSBN, 2013b). Historically, states determine their own individual licensing parameters and many have not yet joined this national initiative. For those who have not, nurse licensing requirements are determined, and may vary from, state to state. Licensing is a key part of regulation, and the manner in which nurses are licensed is important for their professional identity.
Accreditation and Certification.

Since 1931, nurse anesthetists in the US have been organized and represented by the national professional association, the American Association of Nurse Anesthetists (ANAA). In 1975, the association oversaw the establishment of councils to manage the accreditation and certification processes for nurse anesthetists (NBCRNA, 2013a). Recognizing the function of the credentialing process as a means of protecting the public, these bodies became separate from the AANA.

One of these councils established a national certification exam and then in 1978 produced recertification requirements. This group is widely known as the National Board of Certification and Recertification of Nurse Anesthetists (NBCRNA). Certification is private and voluntary through this organization; however, is a practice requirement for many state licences. When states do not make this particular certification mandatory, they may use it as a standard for which an equivalent must be met. It is recognized in many state regulations, in nursing practice acts, and in malpractice litigation (NBCRNA, 2013a). The credential recognizes the predetermined, objective qualifications set forth by the board for public assurance of nurse anesthesia services. CRNAs must be recertified every two years by earning continuing education credits as well as meeting practice requirements (NBCRNA, 2013b).

The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) is the national accrediting organization. The agency values include “integrity” in pursuing its mission, goals, and objectives (COA, 2013a). Performing quality assessments, and assisting with quality enhancement of programs and nurse anesthesia education, are outlined as the mission of the organization. As of June 2013, there were 113 accredited nurse anesthesia schools in the US. The COA’s Standards, Policies and Procedures document (COA, 2013b) could be useful for
anyone interested in learning more about the ways in which nurse anesthesia programs are
legitimized in the US. The educational background of an individual is a key consideration for
regulatory bodies in the US. The accreditation of nurse anesthesia programs ascertains that these
institutions meet, and strictly adhere to acceptable standards set forth by the national council.

*Education.*

CRNA education requirements include completion of a Bachelor of Science in Nursing
(BSN) or other suitable undergraduate degree, and current license to practice as a Registered
Nurse. Nurse anesthetists must have at least one year of experience in an acute care setting.
They must complete and graduate from an accredited graduate nurse anesthesia program
(program duration ranges from 24-36 months), and pass a national certification exam (AANA,
2013d). According to the AANA, it takes a minimum of seven years of education and clinical
experience to educate a CRNA. A student will complete approximately 2,500 clinical hours and
administer 850 anesthetics before their education is complete. Continuing education is a
mandatory component for recertification of CRNAs, occurring every two years.

*State Regulation*

While federal legislation provides a broad framework for health care provision,
individual state requirements are determined through policy created by state boards and
regulatory agencies. Since the majority of institutions are privately owned, institutional policy
can further specify practice parameters for CRNAs. A summary of policy on an institutional
level throughout the US is beyond the scope of this paper; however, understanding the basic
regulatory parameters utilized from state to state can offer insight into the ways nurse anesthesia
practice is organized throughout the country. The AANA has tracked broad legislative and
regulatory requirements for 50 states (AANA, 2013c). The pie charts that follow highlight
elements that would require consideration by decision-makers in the event of new policy formation for nurse anesthetists in BC. The following figures can also help us envision the degree of uniformity amongst the varying requirements set forth by individual states. We can appreciate the consistency (or lack there-of) among different factors related to regulation including education, new graduate provisions, most common authority for recognition of nurse anesthetists in the US, and the types of recognition used amongst states (AANA, 2013c). The following charts describe these factors across 50 states, excluding the District of Columbia, Puerto Rico, and the Virgin Islands.

Figure 1

Figure 1. Number of states requiring a Master’s Degree for CRNA practice.

From American Association of Nurses Anesthetists (AANA, 2013c), official website, 2013. Adapted from data provided on website.
Figure 2. Number of states in which specific provisions are provided for new graduates.

From American Association of Nurses Anesthetists (AANA, 2013c), official website, 2013. Adapted from data provided on website.

Figure 3. Primary source/authority for recognition of CRNAs. NPA: Nurse Practice Act, SBON R&R: State Board of Nursing Rules and Regulations, DOH: Department of Health.

From American Association of Nurses Anesthetists (AANA, 2013c), official website, 2013. Adapted from data provided on website.
As we can see from Figure 1, approximately two thirds of the fifty American states require a Master’s Degree for CRNA practice. In Canada, not all provinces require a Master’s Degree for APN practice, however nursing literature identifies a strong endorsement for the requirement of a graduate education for these roles by various organizations including the CNA (CNA, 2008; CNPI, 2006a, Schreiber et al., 2005). Figure 2 depicts the presence of specific provisions for new graduate CRNAs. The amalgamation of newly educated practitioners into the practice arena requires thought and attention by regulators to ensure these nurses have the best chance of succeeding. A new role in BC for nurse anesthetists would also need thoughtful planning in this regard. Figure 3 represents the various authorities recognizing the CRNA credential, providing further insight into the regulatory structure of nurse anesthetists in the US.
The final chart, Figure 4, depicts the range of recognition types used. We can see by the variety of ways used by different states to recognize CRNA credentials, there is a lack of uniformity from state to state. However, 48 of the 50 states included require national certification and the same is true for recertification (AANA, 2013c).
Chapter 5. Canadian Advanced Practice Nursing

A review of the Canadian policy landscape regarding nurse anesthesia practice will build on our understanding of the national context of nursing regulation. Unlike the US, Canada does not have an established role for nurse anesthetists. Since this role would be new to Canada, options exist for every aspect of the role including title of this new health care provider, model of care, and all legislative and regulatory parameters including educational requirements, entry-to-practice competencies, practice standards, and quality assurance procedures. Although BC is not limited by federal obligations to conform to any national regulatory standards if they existed, the manner in which the role would fit within the larger health care structure may have important implications for the overall success of the new nursing role. These considerations will become clearer when facilitators and barriers of new role implementation at the national level are discussed in Chapters 7 and 8. Decision-makers can benefit from congregating a broad range of information from many areas. The national health care infrastructure and relevant history of nurses working in expanded roles in Canada are significant areas for exploration that will expand our knowledge base on the policy context of nurse anesthesia practice. In this chapter, I will examine the Canadian context as an important contribution to this analysis.

In the US and many other countries, nurse anesthetists are considered to be advanced practice nurses (MacDonald & Schreiber, 2005). Many nurses in Canada who practice in expanded scopes are considered to be APNs as defined by the CNA (see Chapter 2 for the APN definition). If nurse anesthetists were regulated to practice autonomously in BC, they would be performing duties that are beyond the scope of an RN. Additionally, the definition offered by the national association (CNA) to describe APN practice, would also be suitable to describe the
practice of a nurse anesthetist (MacDonald & Schreiber, 2005). For these reasons, this portion of the inquiry will focus particularly on the evolution of the APN in Canada.

In the overview of the American system, I identified federal legislation as a component in the health care structure that has potential to influence the way health care is delivered in individual jurisdictions. The same is true for Canada. Also, just as individual states have the final word on policy that directly affects the provision of care, so do the individual provinces in this country. For example, in November 2012, the Canadian government amended the Controlled Drugs and Substances Act to include NPs, allowing them to prescribe narcotics and controlled substances. These changes, however, are approved at the federal level only. Because the changes require integration with BC’s regulatory model, the final decision on whether to go forward with the new legislation rests with the BC Minister of Health (CRNBC, 2013a). This fact does not undermine the importance of national influences on provincial health care issues.

Besides federal legislation, policy regarding nurse anesthesia also includes regulation. Understanding the significance of factors such as accreditation, licensing, and credentialing from a national perspective may have noteworthy implications for the overall success and sustainability of a new nursing role. The evolution of the APN in Canada can be examined, and information regarding how these roles have been developed across the country will add depth to our understanding of the processes involved in implementing a new health care role.

A historical overview of the APN in Canada will help to identify the developmental stages, influences, and current status of nurses practicing in expanded roles in this country. In An Historical Overview of the Development of Advanced Practice Nursing Roles in Canada (2010), Kaasalainen and colleagues track APNs in Canada back to the 1890s, where outpost nurses worked in remote areas of the Northwest Territories, and Newfoundland (Labrador) due
to chronic shortages of doctors. In the 1960s, the fallout of World War II led to fewer nurses at home. There was increased funding to train the existing veteran workforce to deal with issues such as the tuberculosis pandemic, as well as nursing specialties such as psychiatry. Even at this time, individuals were pushing for the scope of nursing practice to more effectively keep pace with the health needs of society. Opposition to the nursing profession moving towards more advanced and independent practices often came from within the profession itself, and also rose out of concern that the practice was becoming too medicalized, losing its unique philosophy (King, 1974; MacDonald et al., 2005). Despite this, many people felt that nurses were rightly situated to deal with the changing health care needs of society (Kaasalainen et al., 2010).

Kaasalainen et al. (2010) outline the evolution of APNs in Canada by explaining how the NP and CNS roles were developed throughout the 1960s and 1970s. Facilitators for these roles included a perceived shortage of physicians, increased medical specialization, introduction of publicly-funded, universal medical insurance, and augmented interest in primary health care. The Boudreau Report, released in 1972, recommended increased use of NPs. This was followed by a joint statement by CNA and the Canadian Medical Association (CMA) that “addressed priorities, roles and responsibilities, education and work situations for nurses working in expanded roles” and “recognized the interdependent nature of nursing and physician roles and envisioned increased nursing responsibilities for health maintenance” (Kaasalainen et al., 2010, p. 39). Following the release of the Boudreau Report and the CMA/CNA joint statement, two things happened. Nursing groups across the provinces pushed to legitimize these nursing roles with expanded scopes, and education programs were developed to provide nurses with the skills they needed to participate in both primary health care and remote nursing practice. The subject of education in the early 1970s brought much debate due to concerns over entry to practice
requirements. The argument for standardized educational requirements began at this time and is still a concern for the nursing community. This issue is an important consideration in regulating professions since confusion around this has contributed to a delayed acknowledgement and amalgamation of these roles into the health care system (Kaasalainen et al., 2010; Schreiber et al, 2005).

During this time of introduction of APN roles across the country, studies evaluating the effectiveness of these new roles (including the Burlington Trial and the Southern Ontario Study) demonstrated that these roles were effective in family practice settings and with patient satisfaction (Kaasalainen, 2010). Regardless of this, the momentum of nursing practice in an expanded scope was slowed in the 1970s as there was a lack of funding from provincial governments to support it. NPs were being supported by the physicians they worked with through fee-for-service payments out of physicians’ salaries. No legislation was in place for nurses to practice in an expanded scope, and the financial disincentive to support this practice came to outweigh the benefits as physicians could no longer bill for unsupervised nursing services. NPs continued to practice in rural and remote areas during this time. Approximately 250 NPs graduated from the university programs between 1970 and 1983. These nurses practiced in this capacity through the 1980s and 1990s.

In their historical overview of APNs in Canada, Kaasalainen et al. (2010) expand on the momentum that was evident at the end of the century as more provinces developed legal authority for NPs. A renewed interest in this nursing specialty was brought about in the 1990s as a result of rising health care costs and interest in community-based care and health promotion. Several provincial nursing organizations were once again advocating for expanded roles for NPs, developing new regulations, and educational programs. They describe the influence of the
Romanow and Kirby national reports, recommending more effective use of NPs in the health care system to reduce wait times, improve Primary Health care delivery, and take on new roles to improve efficiencies (Kaasalainen, 2010; Kirby, 2002; Romanow, 2002). By 2009, all provinces and territories had legislation in place for NPs in Canada, and there were approximately 2500 licensed NPs across the country (over half of which were in Ontario).

In 2008, there were approximately 2,227 CNSs across the country (663 in BC); however, the true number is unknown due to less clarity in role regulation (Kaasalainen et al., 2010). The function of the CNS in Canada has experienced great variation in role definition, administrative support, educational requirements, and organizational structure across the country. The overall lack of precision in defining this specialty has created barriers to entrenching advanced practice nursing throughout the Canadian health care system and educational systems. Since we are more accurately able to identify the number of NP’s working in Canada (than CNSs), Figure 5 provides an idea of the numbers of practitioners working in specific provinces across the country. From this diagram we can see that Ontario has the highest number of NPs, while Prince Edward Island and the Yukon appear to have the least. This information allows us an appreciation for the provinces that may be the most active in employing NPs. Because there is less uniformity from province to province in regulating CNS practice, numbers of these APNs are not as reliable. Because CRNBC does not recognize, nor specifically regulate this class of professional, there appears to be some ambiguity in the recognition of the role. “The advanced nursing role of clinical nurse specialist in British Columbia works within the legislated scope of practice of registered nurses, and there are no additional regulatory requirements” (Wearing, Black & Kline, 2010, p.42). This information could be useful for legislators and regulators in BC involved in the process of creating a new role for nurses in anesthesia care. There is
potential to examine each province’s reasoning, viewpoint, and approach to implementing nursing roles in expanded scopes, and learn from them.

Figure 5

Figure 5. Nurse Practitioner workforce by province in fall 2009.

From DiCenso, A. (2010). Nurse Practitioners- Past, Present and Future. PowerPoint presentation. CHSRF/CIHR Chair program in APN.

In 2001, the Canadian Health Services Research Foundation partnered with the Canadian Institute for Health Research (CHSRF/CIHR) to fund a 10-year chair program at McMaster University to increase policy-relevant, nursing research capacity regarding APN practice in Canada. Researchers involved in this initiative contributed to a special issue of the Canadian Journal of Nursing Leadership in 2010 that provides a detailed overview of the history and status of APN in Canada. This work is significant for the context of new role development because it
identifies the history, barriers, and facilitators around advanced practice for nurses in Canada. This literature can be used as a comprehensive resource to guide decision-making and provide background for implementing new roles as well as sustaining and improving existing roles.

Momentum for APN continued with the Canadian Nurse Practitioner Initiative (CNPI), which involved a group of stakeholders from across Canada who participated in the production of a technical report entitled *Nurse Practitioners: The Time is Now - A Solution to improving access and reducing wait times in Canada* (CNPI, 2006). This project was funded by Health Canada. It presents a national framework to support the continuing integration of NPs into Canada’s health care system. Advice from over 5,000 people was sought (including government representatives, regulators, nursing organizations, other health professions, employers, and educators) to carry out this research. This work includes the *Framework for Nurse Practitioners in Canada* (2006), designed as a tool to guide governments, regulatory bodies, professional organizations, unions, and employers in successfully integrating NPs into the health care system (CNPI, 2006). Since this work has taken into account the views of stakeholders, barriers and facilitators of new role development, and strategic direction for success of advanced practice roles on a national level (including standardized regulatory parameters), it is an excellent resource and alternative for decision-makers interested in implementing a new advanced practice nursing role.

While much has been done across Canada to support the implementation of APNs across the country, it appears that there are possibilities for further development. One of these prospects is a role for nurses practicing in the field of anesthesia. It is clear that countries such as the US have taken a lead in integrating nurses in expanded roles such as this, and much can be learned from their efforts. Since our publicly-funded health care system in Canada is set up to
give individual provinces the authorities to regulate health professionals in the manner they see fit, decision-makers in BC have the freedom to implement new roles, such as a nurse anesthetist. An understanding of the national implications of an endeavour such as this could be a key factor for role development, support, and sustainability.
Chapter 6. Policy in British Columbia

Having overviewed the evolution of advanced practice nursing in Canada, I will narrow the focus to the context of BC. Keeping in mind the elements of the Health Policy Triangle, I will present some of the actors and explore the processes involved in legislation and regulation of nursing roles in this province. Identifying those who would be involved in this process, and in what ways, is fundamental for understanding how new policy is developed. Normative analysis provides the philosophical foundation to consider the values of the individuals and groups involved in policy formation, and the impetus to understand the potential influence that their belief systems have on the contributions they make. Following an introduction of some of the actors involved in policy processes in BC, I will overview the legislative and regulatory processes involved in the introduction of another APN role in this province. Appreciating the process by which the newly-created Nurse Practitioner was integrated into the provincial health care system allows firsthand insight into how local decision-makers navigate policy regarding nurses in expanded roles. Moreover, this portion of the inquiry makes clear the strengths and improvements to be considered by stakeholders involved in new role implementation. This exploration will provide additional background for policy alternatives presented in Chapter 9, which will be drawn from existing value systems and recognized priorities that exist in the context of BC.

Government

Description of current government.

In Canada, health care is publicly-funded. The federal government adjudicates and administers the Canada Health Act, which outlines the conditions that provinces and territories must abide by in order to receive the full financial contribution from the federal government.
With the exception of a few specific services, all health care management is organized and managed by the provincial governments (Health Canada, 2013). In BC, the Liberal party is currently in power and will occupy that role until 2017, when the next provincial election will take place. Christy Clark has been the leader of the party since February 2011. The Minister of Health role within this government was formerly occupied by Mike de Jong, the individual who announced the intention to implement nurse anesthetists into BC’s health care system to address human resource deficiencies. In June of 2013, Terry Lake was appointed the role of Minister of Health.

**Government Goals and Values.**

Exploring policy processes from a normative perspective allows us to consider how the values of the stakeholders influence policy direction and outcomes. Since the elected party is funded through public taxpayer money, and is granted the authority to govern by popular vote, it makes sense that the party’s publicly stated goals and values would be synonymous with its idea of what is best for the citizens of BC (and what officials think the people want). As identified by Leslie Pal (2010) “the most overarching value in public policy is the public interest”. Resources and time are spent defining these visions, in an effort to promote accountability and transparency to the public.

Since the impetus for new policy development is based on these goals and values, defining them in context with this policy domain allows us a deeper understanding of how this specific legislation aligns or does not align with the government’s vision of health care. Documents are available on the BC Government website that outline the mandates of this party to the public. One of these documents produced by the provincial government is the *Innovation and Change Agenda*, available for anyone to access via the internet. This document provides an
overview of the current government’s goals and values. Overall, it appears that this government values and promotes “a sustainable health system that supports people to stay healthy, and when they are sick, provides high quality publicly-funded health care services that meet their needs” (BC Ministry of Health, 2013b, np). A vision for change has been documented, with one of the goals being “improved innovation, productivity and efficiency in the delivery of health services” (BC Ministry of Health, 2013b, p.6). To achieve this goal, the government proposes to optimize infrastructure and technology in the delivery of services, as well as the mix and supply of health human resources. In this document, the Ministry made clear a desire to change the way health care is delivered in BC. While it was acknowledged that health care spending will always be a priority that will continue to grow, it was also emphasized that the changing needs of the population necessitate a more current health services plan to address the present day issues. Two major points of focus for government concern the aging population, and chronic disease prevention. Seniors currently comprise 15% of the population with this number expected to double in the next 20 years, and the incidence of chronic disease is expected to rise 58% over the next 25 years. Sustainability of the current system has been identified by this government as a key concern. Accessible and high quality hospital care services have also been recognized as an area for improvement. Recognition that health care spending is inflating at a rate exceeding economic growth necessitates a more efficient system that can be maintained (BC Ministry of Health, 2013b). While these statements are general in nature, they provide a public acknowledgement of areas the current provincial government values as needing consideration for health care reform.

These goals have been made publicly available for citizens to contemplate; however, it is worth noting that less publicized values also exist, and can influence direction in policy arenas.
While it is impossible to fully appreciate the intricacies and magnitude of political undercurrents, we can broaden our understanding of the effects that government values might have on policy by contemplating traditional liberal philosophy. Liberalism is considered a political ideology. Ideologies are defined as a collection of a group’s of closely related beliefs, ideas, or attitudes (Browne, 2001). In her critique of liberal political ideology, Browne (2001) describes the historical roots of liberalism, as well as the ways in which this political philosophy pervades mainstream knowledge processes and ways of conceptualizing many aspects of health care. She explains how the central concepts in liberalism of individualism and equal opportunity resulted from the creation of a capitalist society following the breakdown of feudalism in Europe. Classical liberalism followed the belief system that supported minimal state intervention, protecting the freedom and rights of self-reliant individuals. Modern liberalism developed as a result of social inequality, integrating the provision of public services such as health care, schooling, and social welfare. Principles of classical liberalism are still practiced and known as ‘neoliberalism’ in Western countries (Browne, 2001).

As value-laden beliefs or prevalent ideologies can affect the prevailing actions and structures of government and societies, classical liberal philosophy influences political motives and outcomes of government decisions. Browne (2001) argues that the central tenets of liberalism—individualism, egalitarianism, individual freedom and tolerance, and free market economies—are so entrenched in our society, we may be unable to see the comprehensive impacts that policy decisions have on population health and the social system. For example, social structures can be often overlooked in favor of a focus on individual choice. To further explain, a health care professional (drawing from a widely accepted practice philosophy) might look for ways to empower an individual to find ways to support their own health instead of
ensuring and advocating for community support systems to be in place that would assist the individual to achieve a better health outcome. Policies and legislation that sustain the status quo can be supported by decision-makers and the voters who support them. This includes the generation of knowledge to support these decisions via government generated research funding, potentially further propagating these values. The questions that are asked, and the resultant knowledge that is generated, is inevitably guided by underlying (and often insidious) value systems.

A more specific example of how liberal values are present in health care structuring can be seen in the issue of privatization of health care services. A government that values individualism and a company’s right to act as a free agent (over more collective approaches) might support the idea of opening private surgical clinics that could potentially impact the way public health care is delivered in that jurisdiction. According to Priest, Rachlis, and Cohen (2007), governments who feel that we should consider a larger role for for-profit organizations (such as our current party formerly led by Gordon Campbell), give us reason for concern. These authors purport that this type of philosophy can have dire consequences for our publicly-funded health care system, including longer surgical wait times for those in the parallel public system who cannot afford private care, “cream skimming” of patients by for-profit clinics (leaving more complex and expensive care for the public system), less safe care, and higher costs associated with private surgical clinics (Priest, Rachlis & Cohen, 2007). While it is important to recognize that being called a “Liberal Party” does not necessarily mean that this government participates in all the political philosophical traditions that are associated with this ideology, being aware of traditional values can provide clues as to how government might lean on certain issues. In implementing a new health care role, it would benefit stakeholders to have an appreciation for
the ways in which an engrained ideology can impact policy direction. This may assist in the production of informed decisions by policy-makers, with the true interests of societal health in mind.

*How Does Government Contribute to this Policy Process?*

*Legislation.*

The BC Government is responsible for the regulation of health professionals in the public interest. The Health Professions Act is an umbrella framework produced and maintained by the government that consists of legislation that applies to 25 practicing health care professions in this province (BC Ministry of Health, 2013c). Within this document, scope of practice, restricted activities, and title protection are identified for each recognized body. In fulfilling the responsibility to regulate health care providers, the government delegates the authority of self-regulation to individual professional groups and their perspective Colleges. Each College must ensure their registrants are competent, qualified, and ethical practitioners who follow a defined set of standards in their practice (BC Ministry of Health, 2013c).

The Health Professions Act has seen considerable reform since 2001. From 1990-2002 there existed a Health Professions Council within the Ministry of Health, responsible for reviewing legislation and scope of practice for health professions in BC. Before this group was formed, many professions were legislated in separate statutes other than the Health Professions Act. Through the production of the document *Safe Choices - a New Model for Regulating Health Professions in British Columbia* (BC Ministry of Health, 2013d), the Council determined the required amendments for the act to accurately reflect the core principles representing the 25 professions governed by it. Prior to this legislative reform, Registered Nurses were overseen (since 1918) by the Registered Nurses Act (BC Ministry of Health, 2013e). The self-regulating
body responsible for safely directing nursing practice was the Registered Nurses Association of British Columbia (RNABC). This body was also acting as the professional association advocating for the interests of nurses; therefore, the association was dissolved due to a perceived conflict of interest. The government at this time appointed a board for the new College of Registered Nurses of British Columbia (CRNBC), currently overseeing the regulation of Nurse Practitioners, Registered Nurses, and licensed graduate nurses in BC. Its inception in 2005 coincided with the amalgamation of Registered Nurses and Nurse Practitioners into the Health Professions Act. Any recognized health care role in BC must be defined in the Health Professions Act. Therefore, any new role introduced into the provincial health care system would require legislative amendments to this Act.

The Heath Professions Act is considered an umbrella framework for health care professions legislation; however, it is not the only statute that would need altering in the event of a new health care role. The practice of new professionals could create complexities for legislative consideration beyond the realm of this Act. For example, Bill 10 is a piece of legislation that was created to amend other acts in instances where these acts intersect with and pose barriers to NP practice. Examples of this are when acts specify which professionals have the authority to sign death certificates, or perform driver assessments to legally operate motor vehicles. Depending on how government decides to write legislation for a role, there is potential that these types of amendments to policy would be required, in cases where the scope of practice of a new health professional (such as a nurse anesthetist) is impacted by other legislation.
Process.

From inception of an idea to the writing of new legislation and implementation of a new role in health care, a complex process exists within government. As identified by Daryl Beckett, a ministry of health employee involved in health care regulation, ideas are generally born from one of three sources (personal communication, February, 2013). They may be generated from within government, having risen from an internal awareness of health human resource needs. Often Members of Legislative Assembly (MLAs) will bring forth ideas based on the individual areas of concern brought forth by constituents. Secondly, stakeholders can bring issues to the government that they feel warrant attention. Examples of these participants in the context of nurse anesthesia might be from within individual health authorities, or colleges governing the practice of health care professionals. Lastly, the media can play a pivotal role in the generation of ideas for policy change in government. High profile issues often initiate action on policy issues since they have potential to influence public opinion of government. As was the case in 2012 with the very public threat of service withdrawal from anesthesiologists, the Minister of Health at the time publicly responded to the situation with the announcement that government would be exploring the option of using nurses to provide anesthesia care. Often, the media profile of an issue determines the urgency, time, and resources committed by government, since generally this is considered symptomatic of a larger existing problem. These three sources of idea generation may lead to a throne speech commitment, which then leads to the formulation of policy initiatives. Action can be taken on an issue by the decision of an individual working within a Ministry who has a particular interest and decides they would like to champion it. How quickly the process is moved forward is variable and dependent on the issue itself. At any given time, government officials have an array of projects that are being simultaneously attended to.
Hours in a work day devoted to specific issues is determined by priority and urgency of the matter.

The provincial government is comprised of the Premier, and Cabinet. The cabinet is made up of Ministers who represent divisions such as health care. As mentioned, Terry Lake is the current acting Minister of Health. Under the Minister are the Deputy Minister and Assistant Deputy Ministers (the number of these may vary). These officials make up the executive council for the Ministry. Once it has been established that an idea warrants action at the policy level, an internal committee is generated consisting of individuals who play various roles within the ministry. For an issue such as regulating a new health care role, this committee would most likely include a representative who works with regulation legislation, as well as someone who works in a health human resource planning division. This group might also involve individuals from areas such as human resources, labour relations, and advanced education. The goal of this group would be to generate an executive briefing, which upon completion would be presented to the executive council. This briefing note would be an accumulation of information pertaining to the matter, and encompassing aspects of the issue that would fall under government’s responsibility in the policy change process. Different aspects of the issue would naturally coincide with the appropriate individuals within ministries involved in the investigation. Such topics as role description, regulatory framework, compensation, long term human resource need, and educational needs would most likely be included. The internal committee would consult and engage with other groups such as the CRNBC, the College of Physicians and Surgeons, representatives from various health authorities, and individuals from the relevant professional practice associations including the Association of Registered Nurses of British Columbia (ARNBC), British Columbia Nurse Practitioners Association (BCNPA), and the British
Columbia Medical Association (BCMA). These consultations would inform the executive briefing as well as the committee of the policy context. The briefing would include pros and cons of this initiative based on expert opinions, as well as operational and regulatory implications around the implementation of a new nursing role. At this point, the executive council would make a decision as to whether to approve and how to prioritize the proposal. If it is approved, the necessary legislation—tailored to govern the specific requirements of the role—is written. This regulation is overseen by an individual in the Ministry with a broad knowledge of the existing documentation governing health professionals. Once created, new legislation, as well as any amendments to existing legislation, would be posted on the government website for 90 days. This time period allows for feedback from the public and professionals who want to comment or express their opinion on the proposed change. Following this period, legislation is edited, altered, or rewritten depending on the feedback received. If it is completely rewritten, a new 90 day posting follows and the process is repeated. From here, the new piece of legislation is handed over to the Minister of Health to be signed or not, determining the future of the new role.

*The College of Registered Nurses of British Columbia (CRNBC)*

*Description.*

The College of Registered Nurses of British Columbia is the regulatory body for all Registered Nurses, Nurse Practitioners, and licensed graduate nurses. As such, the college would be a major stakeholder in any process defining a new role for nurses. CRNBC was established and granted the authority by the BC government to regulate nursing in the public interest in 2005. Nursing has been a self-regulated profession since 1918. Self-regulated means that the government and the public are placing their trust in the nursing profession to oversee the
safety and quality of the care provided by fellow nurses. The College’s mandate is to “ensure that all individuals seeking entry to practice and maintaining registration are competent and ethical professionals” (CRNBC, 2013a, np). They do this by supporting nurses to meet the standards they have set, monitoring practice to ensure these standards are met, and acting on any failure to do so.

Goals and Values.

Individuals involved in this organization are given the responsibility to define the standards under which nurses practice; therefore, the values of the organization can give an indication of what their primary concerns would be in the regulation of a new health care role. The college provides an extensive description outlining their regulatory philosophy on their website (CRNBC, 2013a). Above all, the principles that are outlined represent the overlying value of serving the public interest to provide effective, appropriate, and safe care. The College Board has highlighted five concepts in its efforts to focus on risk reduction and prevention of adverse practice occurrences. The first of these is to promote a just culture. By this, CRNBC is valuing open relationships with nurses, union, and employers in an effort to stay current with issues and changes in work environments. This ensures nurses are supported to prevent mistakes from occurring, and learn from them when they do. The “right touch regulation” is defined on their website (2013) as “the minimum regulatory force required to achieve a desired result”.

Second, regulation should be simple, effective and reviewed regularly. Third, the college identifies collaborative self-regulation as a means to achieve more productive partnerships inter-professionally, avoid duplication of services, and promote shared accountability to strengthen the health care team. Through a principle-based approach to regulation, the college hopes to lessen the false sense of security that accompanies former rules-based systems of care delivery. It is
considered a more proactive method that relies on the professional judgement of care providers individually at the level of practice rather than basing decisions on a set of existing rules (which may or may not be the best action for a particular context). The final principle outlined by the college is based on continuing professional development. They believe it is the responsibility of the regulatory body to support nurses to engage in continuous learning and professional development to better function in a changing system and be better equipped to care for clients (CRNBC, 2013a).

**What is the Role of CRNBC in the Nurse Anesthesia Policy Process?**

A new health care role intended to address a shortage of anesthesiologists would require the establishment of a regulatory framework that would oversee the practice of nursing in this capacity. CRNBC would have comprehensive participation in this process from the early stages of role development. The college would undoubtedly be consulted by the internal committee of the Ministry of Health to engage in preliminary idea development around the prospect of this role and all that would be involved in the regulatory arena. Once initial consultations have occurred and government has decided upon and passed legislation, the task of the college, as with all nursing roles, would be to formally produce the regulatory model, including educational requirements, entry level competencies, standards limits and conditions, and quality assurance programming to promote high practice standards. With the primary goal of the college being to protect the public, CRNBC would most likely approach this task very carefully using the best available evidence to ensure a sound regulatory approach is employed. This would involve the participation of stakeholders throughout the process. These may be instead of, or in addition to, government stakeholders and include educational institutions, employers, and other Colleges.
The College of Physicians and Surgeons

The College of Physicians and Surgeons of BC is the medical counterpart to CRNBC. This organization regulates and provides licensure for BC’s physicians. The mandate of this body is to “establish, monitor and enforce high standards of qualification and medical practice across the province” (CPSBC, 2013). Representatives from this college would most likely be invited by government to participate in providing input on how a role like nurse anesthesia would fit in and affect the BC health care system. As will be further discussed in Chapter 7, collaboration and acceptance by other health care providers (including physicians) is pivotal to the success of a new nursing role.

Professional Associations

Nursing professional associations in BC include the Association of Registered Nurses of British Columbia (ARNBC), and the British Columbia Nurse Practitioners Association (BCNPA). ARNBC is the newly created organization that acts on behalf of RNs and NPs in BC, providing a voice for these professionals in nursing practice and public policy (ARNBC, 2013). Through this professional body, nurses can not only have their voices heard on a provincial level, but have the opportunity to occupy a seat on the board of directors of CNA, where there is a chance to help inform (and be informed by) nursing policy on a national level (ARNBC, 2013). With the desire to advance the health of British Columbians, strategic directions of the association include “developing strong influential partnerships with government, nursing, and professional organizations – provincially, nationally and internationally; and, engaging nurses’ active participation in professional issues” (ARNBC, 2013, np). This group would be a particularly important stakeholder in the process of implementing a new nursing role in BC, partly because they are some of the only stakeholders who have the ability (and interest) to
advocate for the advancement of the profession, with the particular interests of its members at heart. Whether or not this group would support implementing this type of a role remains in question; however, if government were to decide that new policy in this regard should proceed, ARNBC would have the unique ability to act on a national and provincial level in the policy process, as well as advocate and represent the views and preferences of the profession. Since an option for the development of the regulatory framework for nurse anesthetists in BC would likely build on the competencies and regulations of RNs in this province, these new practitioners would be represented by ARNBC, just as NPs are.

The British Columbia Nurse Practitioners Association (BCNPA) is another professional association specifically incorporated to support NPs to meet the highest standard in providing efficient, accessible, and effective health care (BCNPA, 2013a). This organization also may be invited by government and the nursing regulatory body to participate in policy development in the event nurse anesthesia were to become regulated in this province. The BCNPA has experience and knowledge about advanced practice nursing in BC. This stakeholder has been witness to the introduction and implementation of the NP advanced practice nursing role in recent years in this province. As well, individuals from within this organization may have developed relationships with other key stakeholders who might be involved in the nurse anesthesia policy process. BCNPA has advocated for the interests of the profession as well as the public, by working hard to promote sustainability for NPs and assisting in finding the most effective fit of these professionals within the local landscape. This body would understand the intricacies of the advanced nursing scope of practice in BC, how it is affected by current legislation and effective long-term planning. Regardless of the manner in which nurse
anesthetists may be regulated (under the NP umbrella, or with a new title), the BCNPA may have some valuable input for this policy process.

Another key professional organization in this province, representing physicians, is the British Columbia Medical Association (BCMA). This voluntary association represents the collective views of BC’s physicians, medical students, and residents, and negotiates for their compensation (BCMA, 2013). This group aims to advance the health of British Columbians, and the science and practice of medicine, by working to improve legislation, education, hospital, and other health care services (BCMA, 2013). Unlike the College of Physicians and Surgeons that functions as the profession’s neutrally grounded regulatory body acting foremost in the public’s interest, this organization (like the ARNBC and BCNPA), advocates for the interests of its members—physicians. As powerful and influential health care providers, doctors would most likely be consulted in some capacity during the decision-making process regarding a new anesthesia provider in BC. Physicians in this province represent the only acknowledged group of professionals granted the authority to practice in this specialty in Canadian history, and have skills and knowledge that could potentially assist with the process. Furthermore, their respected position in the health care system illuminates the likely impact their support might have, making collaboration with this group a possible factor in the success of a new health care role. The BCMA will, however, represent the views of its members and should the majority object to a policy change such as this, prospects of working with this organization as a collaborative partner might bring with it some challenges.

Health Authorities and Institutional Administrators

The BC health care system is overseen by the provincial government, but is further divided into six distinct health authorities: Northern Health, Interior Health, Vancouver Island
Health, Vancouver Coastal Health, Fraser Health, and the Provincial Health Services Authority. The first five of these authorities serve their respective geographic locations. The Provincial Health Services Authority operates agencies such as the BC Children’s Hospital and the BC Cancer Agency, located in varying regions and attended by patients in need from all across the province. The government allocates funding to support health care through these individual health authorities. There are bureaucratic systems in place to manage these funds and balance budgets in each region. Different geographic locations contain unique populations and impose different requirements on the health care system. For example, many remote areas have difficulty recruiting qualified professionals to provide health care services in BC. Health authority administrators are indispensable stakeholders in policy decision-making, since they understand what is needed for their region to achieve high quality, accessible health care. It makes sense that this decentralized form of resource allocation might enhance the ability of administrators to provide the unique services required in discrete areas of BC. While government has the power to create and enact legislation to enable practical change throughout health care authorities in BC, those who truly understand what each system needs can be found at the level of the health authority. For this reason, the introduction and implementation of a new health care role might benefit from the input of health authority and institutional administration.

**Educators**

The academic populace would not be exempt from participation in processes enabling a new health care role such as nurse anesthetists. Education is a key component of regulation and critical to the foundation and sustainability of any health profession. Part of government’s role in establishing a new professional role in the system is to support avenues for suitable education programs that will produce individuals capable of providing high quality patient care. Educators
are best situated to provide the unique knowledge base to assist in decision-making on the training of nurse anesthetists. Educators are aware of available resources, and would have insight regarding the options and processes for program development needed to educate nurse anesthetists in BC.

*Nurse Practitioner Implementation*

Besides identifying the *actors* who would be involved in the process of regulating a new health care role in BC, the Health Policy Triangle also identifies *process* as being a key consideration of policy analysis (Buse et al., 2005). In an attempt to present a comprehensive overview of the nurse anesthesia policy landscape in BC, I will include the significant work that has been done in this province to implement the first type of advanced practice nurse – the Nurse Practitioner. This part of the inquiry will present the path local decision-makers recently took in their efforts to improve the health and access to care of the citizens of this province. By examining the process of NP implementation in BC, we have the opportunity to track the process, and identify parallels that could apply to the introduction of another advanced practice nursing role.

The government of BC made the decision to implement NPs into the health care system in 2000 (Wearing, Black & Kline, 2010). The process began with a partnership between government and the nursing regulatory body (at the time RNABC, see the *Legislation* section earlier in this chapter). The initial project was guided by two principles. The first specifies that NP care would be provided in all settings where there was an established need, with regulation of these professionals addressing all forms of their practice including community, acute, residential, geriatrics, and mental health. The second indicates that NP regulation would accommodate all of the practice environments of NPs by being flexible (Wearing, Black & Kline, 2010). Between
2000 and 2005, multiple stakeholders were consulted to provide input on the process. One of the clear messages from participants was a perceived need for broad legislation concerning NP practice. There was consensus around the idea that the rigorous regulations overseeing NP practice should be established by the regulatory college and not through limiting legislation written by government (Wearing, Black & Kline, 2010). Deciding on the care model to best serve as the foundation for regulation of NP practice seems to have been one of the biggest challenges during this process. A lack of evidence and inconsistent approaches to the professional regulation of NPs both nationally and internationally contributed to the difficulty in decision-making. A literature review and consultations on the way other jurisdictions in Canada and the US regulated NPs led regulators to the realization they needed to find a broad approach that would encompass all categories of NP practice. It seemed stakeholders were not interested in promoting regulation that would result in assessing applicants for competencies in specific specializations (Wearing, Black & Kline, 2010). Of particular use to the college was the position paper put forth by the National Council of State Boards of Nursing (described in Chapter 4), as well as other American resources in which NPs are regulated with an autonomous and broad scope of practice (Wearing, Black & Kline, 2010). An approach to regulation for three categories of NPs was decided upon, following the development of draft regulations and extensive consultations with stakeholders and international regulators. Government officials, regulators, physicians, NPs and RNs (in a variety of roles) pharmacists, educators, and practice leaders all took part in discussions.

In March of 2003, the report entitled *Advanced Nursing Practice: Opportunities and Challenges in British Columbia* was published. Major funding for this research was provided by the Canadian Health Services Research Foundation and the BC Ministry of Health. The project
was intended to support policy development and decision-making pertaining to new nursing roles and service delivery models in BC (Schreiber et al., 2003). The three phase study included identification of the current understanding, status, and need for advanced practice nursing roles in BC, case studies of six different APN care models, and some recommendations for “what should be” regarding advanced practice roles in BC (Schreiber et al., 2003). The timing of the study and the fact that it was partially funded by the BC Ministry of Health may indicate that this research played a major role in identifying issues in the process around NP role implementation that followed.

Also in March of 2003, competencies applied to family, adult, and pediatric categories of NP practice were approved by the RNABC board. Wearing, Black, and Kline (2010) explain the five main principles generated by the stakeholders regarding this new role. The first principle was recognition of the importance of regulating broadly, so that categories of NP practice would allow for the wide variety in practice. In 2006, the decision to regulate these three broad categories of NPs was validated, when a prevalent national group came to similar conclusions that this was an effective way to regulate NPs in Canada. The CNPI team (funded through the CNA by Health Canada, as discussed in Chapter 5) participated in a forum with CNA staff, nursing regulators from all over Canada, and educators. A consensus was reached by these participants that NPs would write exams in the same three areas identified by BC regulators: family, adult, and pediatric.

Secondly, the NP role was to be built on the strengths and unique provision of health care services provided by nurses, such as health promotion and client communication, and not as physician substitutes. Third, a broad education base was necessary to ensure that NPs practiced safely with the wide and independent scope of practice that was being legislated. The fourth
principle was identification of the necessity for a rigorous competency verification system that would be employed through examination requirements including the Objective Structured Clinical Exam (OSCE), as well as a written exam. The final principle pertains to the verification of specialized competencies. Stakeholders agreed that the professional practice model generated by the CRNBC works well on its own to ensure nurses are practicing safely, and there is no need to impose additional registration requirements for individuals changing or expanding their practice. The rigorous system in place for carefully monitoring NP practice is further assurance of continued competence, and the lack of need for any extra requirements (Wearing, Black & Kline, 2010).

I have examined the process of determining the NP legislative and regulatory framework implemented by government, CRNBC, and other stakeholders for NPs in this province. Specific competencies for each category of NP were also created at this time, and are outlined on the CRNBC website (CRNBC, 2013b). The regulatory body has additional responsibilities in regulating this profession that involve the evaluation of each individual registrant before providing them with the authority to practice under the NP title. The college requires NP candidates to have current registration as an RN (or be eligible), to have successfully completed a recognized NP program (or equivalent to meet the competencies), completed a written and clinical exam (OSCE), and be capable of providing evidence of meeting the practice hours requirement (CRNBC, 2013c). Part of ensuring nurses are able to meet practice competencies prior to registration involves recognition of the education program that prepared them. The method employed by CRNBC for the recognition of education programs is publicly available in the CRNBC Bylaws and Board Policies section of the CRNBC website (CRNBC, 2013d). In the event an applicant did not complete a recognized program, there are systems in place for
individual competency assessment to determine eligibility for registration. If a role for nurses practicing anesthesia in BC were to become a reality, regulators would undoubtedly need to decide how to assess applicants from other jurisdictions. Given that there are not yet any existing nurse anesthesia programs in Canada to train nurses to practice autonomously in this specialty, the recognition of education programs (particularly from the US) would most likely become a significant regulatory factor.

Once the evaluation process has occurred, examinations have been written, and NPs are registered to legally practice in BC, the regulatory body must assure quality practice is upheld. CRNBC sets quality assurance conditions for registration renewal that NPs must meet in order to continue practicing. These are similar to those for RNs and include planning and evaluating professional development, conducting self-assessments, and obtaining peer feedback (CRNBC, 2013e). With a broader scope of practice, NPs have additional renewal requirements including an on-site review of practice by a peer. These quality assurance requirements can also be found on CRNBC’s official website (CRNBC, 2013e).

The process of establishing the framework for NP regulation, testing the role, and refining the processes and systems required to implement this practitioner, took a considerable amount of work and time (Wearing, Black & Kline, 2010). As of March 2012, there were 144 NPs who were members of the professional association in BC (BCNPA, 2013b). With a commitment made by the BC government to provide funding to health authorities to employ 45 additional NPs in 2013, for a total of 190 over the next three years (BC Ministry of Health, 2013f) this number may rise. It can be expected that the implementation of any new nursing role in this province would have some similarities in the process of developing the regulatory framework, to that which occurred for NPs. By examining this process, the values of
stakeholders become evident in the ways that these participants influenced policy governing the NP role. Familiarity with these actors, their goals, their values, as well as the process that guided the legislation and regulation of this new nursing role, can help us to identify the relevant policy context that would likely be similar in the event nurse anesthetists become a new group of health professionals in this province. Since the NP role was legislated and regulated in 2005, there have been many challenges and successes with role integration. Many of these will become evident in the next two chapters as we explore the barriers and facilitators of new role implementation.
Chapter 7. Facilitators of New Role Implementation

Integrating a role for nurse anesthetists in BC would require attention to the factors that would promote success. Some facilitators of the implementation of new health care roles have come to light through the contextual examination I have conducted regarding nurse anesthesia (and other advanced practice roles) throughout the US and Canada. Beginning internationally, I will describe how factors including history, nurse-to-doctor ratio, decentralization of legislation and regulation, and cost containment can positively influence the creation and success of new health care roles. Next, I will discuss from a national perspective how unified regulation, collaborative relationships, and national initiatives facilitate new nursing roles. Finally, narrowing the scope to a more local context, I will articulate how some aspects related to policy can serve as drivers in BC for a new health care role such as the nurse anesthetist. These influences include political will, health care service gaps, and physician shortages. Additional facilitators that would support implementation on a provincial level include the public and professional acceptance of such a change. Understanding the factors that could positively influence the sustainability and effectiveness of a new role for nurses in anesthesia care in BC is important for anyone involved in implementing a new health care role.

International

Little can be done to change the way things have historically unfolded in Canada with the lack of development of the nurse anesthetist role. What we can do, however, is reflect on the process that occurred in this country as well as that of the US (where the role has clearly progressed) and potentially learn something from it. We can look back on the factors that facilitated the development of this role in the US, but did not result in the same outcome for Canada. As identified in the literature review, among the factors that drove the success of the
nurse anesthesia role in the US were medical advancements, human resource shortages, and influential people (Dunlop, 2008). We can recognize some parallels in our health care system today. Medical advancements have never been more prolific than they are in present day. Anesthesia provision appears to have become widely accepted as a safe practice, whereby nurses and physicians have been shown to provide equally safe care (Dulisse & Cromwell, 2010). Evidence of the shortage of physicians qualified to deliver anesthesia care was also provided in the contextual review. The influence governments and decision-makers have on policy processes have been, by and large, the essence of this paper. By breaking down historical factors that have helped new roles to succeed internationally, we can have a better understanding of what facilitators may also exist at a local level.

In the US, there are approximately 44,000 CRNAs (AANA) serving 314 million people (United States Census Bureau, 2013). According to Statistics Canada (2013), the population of this country is around 35 million. One might think that population has played a role in establishing APN practice in the US to a greater extent than in Canada, but it is actually the nurse-to-doctor ratio that may be both a cause and a consequence for developing these roles (Delamaire & Lafortune, 2010). In countries where there are lower numbers of doctors relative to a high number of nurses, advanced nursing practice roles are more developed. Canada and the US are both included in this group, and are cited in a recently published Organisation for Economic Co-operation and Development report as world leaders in implementing advanced practice roles (Delamaire & Lafortune, 2010). Because the two countries have similar ratios, and this has been cited as a possible impetus for APN development, it is plausible to expect that we may see further advances in the development of these types of roles in Canada.
From an international perspective, the degree of centralization or decentralization of legislation for health professionals plays an important part in determining the flexibility to adapt these nursing roles to meet specific health care needs throughout different countries (Delamaire & Lafontune 2010). If legislation regarding scope of practice is more centralized, then federal governments may be defining specific scopes of practice for health care professionals. Any modifications to these finite regulations would require a change in legislation at the national level, making it difficult for nursing practice to adapt to changing system needs.

Decentralization means broad legislation at the federal level that allows the specific duties and tasks of health professionals to be determined by individual regulatory bodies who govern practice for their jurisdictions based on the needs of their populations (Delamaire & Lafontune 2010). From earlier examples provided in this paper, we can identify three instances in Canada where decentralized regulation has occurred. The first example was described in Chapter 5, when I described how the Canadian government (in November 2012) amended the Controlled Drugs and Substances Act to include NPs, allowing them to prescribe narcotics and controlled substances. This change on the federal level was a shift in policy that allowed more flexibility for policy-makers at the provincial level to grant NPs this competency, which they may or may not do. Another example of decentralized regulation can be seen in the way the BC Ministry of Health worked with CRNBC to regulate the practice of NPs. NPs are legislated under the Health Professions Act; however, their specific competencies are determined by the regulatory body (not the higher level government). This decreases the amount of effort required to make changes regarding competencies of practitioners, eliminating the need, in many instances, for dealing with sensitive issues at a higher level. The final example of decentralization is apparent in the overview of the process led by CRNBC to establish the regulatory framework for NPs in BC
Having studied regulatory models throughout Canada and the US, officials decided to regulate NPs in three broad categories rather than allowing for many different specializations. This would serve to provide BC’s NPs with the most flexibility in their practice, so they could effectively meet the diverse needs of the population. Had a regulatory model been chosen that encompassed various specialties, NPs in BC would be limited in their practice, and would need to qualify separately for certain practice activities. This may limit the public’s access to certain types of care. Decentralization of legislation can be considered a facilitator in the implementation of advanced practice roles in legislative and regulatory policy.

Many countries have identified cost containment in health care spending as an additional reason for promoting expanded roles in nursing practice. This has been acknowledged as an important objective in the US, but has not been reported as such by authorities in Canada (Delamaire & Lafortune 2010). The idea behind cost containment is the delegation of tasks amongst health professionals (whose scope of practice overlaps) to the less expensive care provider, in an effort to reduce costs. Certainly there has been literature supporting the cost effectiveness of nurses working in expanded scopes compared to doctors (Venning et al., 2000; Schreiber & MacDonald, 2008; CNA, 2008). I think it is a fair assumption that all governments, stakeholders, and tax-payers are interested in controlling health care costs and finding more productive ways to utilize resources. Measuring the cost-effectiveness of employing nurses to work in expanded roles, however, is difficult to measure. Because nurses provide such a broad array of services that impact the overall health of populations in different ways, the benefits of their care is multi-faceted. For example, a primary care NP might improve the quality of patient’s lives through education, reduce the number of visits to emergency departments, and improve prenatal care. The cost savings associated with many of these interventions would
require complex, long term studies to determine the true economic impact. Therefore, nurse researchers are suggesting that an increased focus on the “value-added” component of advanced practice roles related to specific nursing interventions, rather than a focus solely on the physician-substitute factors, would be a more accurate measure of the benefits provided by nurses working in expanded roles (Bryant-Lukosius et al., 2004; DiCenso et al., 2010; CNA, 2008). The role of a nurse anesthetist is a more specialized role than other NP roles and, depending on the structure of remuneration for these professionals, it might be slightly less complex to provide evidence for cost effectiveness. It would be important to consider, however, that the patient-centered and holistic care provided by a nursing professional is not necessarily the same care that is provided by a physician, and studies comparing the two ought to be done so with this in mind.

National

We have seen a trend in the US and Canada whereby national groups are working towards a more unified approach to regulation of nurses in expanded roles. According to the NCSBN (as identified in Chapter 4), a common regulatory framework promotes portability of health care professionals, thereby increasing access to care for the public (NCSBN, 2013b). In this country, a Pan-Canadian framework for legislation and regulation of advanced practice nursing roles has been recognized as a factor enabling integration of these roles, and is associated with greater recognition and public acceptance of the role (Di Censo et al., 2010). In this capacity, approaches to regulation that adopt this perspective may provide valuable momentum for the successful integration of new roles. Systemic change has been recognized as a priority for promoting advanced practice roles, particularly the NP. Evidence of national efforts to promote this type of change is apparent through government funding put forth to create a
framework and monitor efforts to establish a pan-Canadian approach to advanced practice nursing regulation. In 2004, the Government of Canada allocated 8.9 million dollars to a Primary Health Care Transition Fund involving Health Canada’s Office of Nursing Policy and the CNPI in an effort to provide better access to primary care for Canadians. At the government’s request, CNA carried out a review on the status of the recommendations made by the CNPI in 2006 (CNA, 2009). I described the original report in Chapter 5 entitled *Nurse Practitioners: The Time is Now - A Solution to improving access and reducing wait times in Canada* as an inclusive document that includes many recommendations, including a national framework for the regulation of NPs across Canada (CNPI, 2006). CNA’s review resulted in an update of the work being done in this field entitled *Recommendations of the Canadian Nurse Practitioner Initiative Progress Report*, published in 2009 (CNA, 2009). This work further entrenched the idea that nurses in expanded roles have potential to significantly impact public health care by reducing wait times and improving access. The original detailed plan includes 13 recommendations categorized into seven strategic areas: legislation and regulation, health human resource planning, practice, strategic communications, education, change management and social marketing, governance, and evaluation. The implementation plan for the 84 actions recommended in these broad categories includes the timeline, priority, key supporting stakeholder groups, and leaders (CNA, 2009).

While some progress has been made to implement these recommendations from a national perspective, authors of the report identify that more work is needed. *Recommendations of the Canadian Nurse Practitioner Initiative Progress Report* outlines how the history of advanced practice nursing in the US validates the need for a pan-Canadian approach (CNA, 2009). National nursing organizations in the US have influenced federal policy resulting in the
acceptance of advanced practice nurses into the health care system, and improved access to care (CNA, 2009). In this document, an argument is put forth identifying that a traditional jurisdictional approach in Canada to regulating new roles would disable systemic change and progress. If this method is to continue, limited integration of advanced practice nursing roles will result, since this sporadic, regionalized approach has not appeared to have provided consistency (CNA, 2009).

The original CNPI (2006) recommendations are extensive and detailed. They include topics such as a unified education plan and remuneration strategies that work towards a national approach intended to promote portability of professionals, thereby improving access to health care and reducing wait times. This effort was put forth specifically for the development of the NP across Canada. Despite the fact that an advanced practice nurse anesthetist may not be regulated as an NP, many of the recommendations would be applicable to this new role if it were created. Developing legislative and regulatory policy that utilizes a pan-Canadian, unified approach to developing standards for new nursing roles has been identified as a facilitator for continued success for advanced practice nursing.

In Canada, labour mobility is supported by federal policy with the Agreement on Internal Trade. This agreement signed by all provinces and territories enables the movement of professionals across provinces and territories, allowing employment across all jurisdictions. It is meant to eliminate barriers to free movement of professionals, enhancing economic opportunities for individuals and improving the competitiveness of Canadian business (Hadley, 1995). The Agreement on Internal Trade seems to imply that an obligation has been made by provincial and territorial governments to allow professionals, such as nurses, to practice across provincial and territorial borders. However, exceptions to the Agreement exist in instances when public safety
might be at risk (Government of Canada, 2013). Public safety has been identified as a central
value for health care regulators (see Chapter 6), perhaps adding complexity to the ability of these
professionals to practice freely in varying jurisdictions. Additionally, this Agreement does not
mandate that all provinces harmonize standards (Hadley, 1995). There remains a requirement in
each jurisdiction for health professionals to meet the individual requirements set forth by the
appropriate regulatory body. This may create a barrier for nurses wanting to cross provincial and
territorial borders, since they would have to meet the eligibility requirements set forth by the
local regulatory body. Portability of professionals would be facilitated by federal legislation that
specifically corresponds to nursing regulation in such agreements. While this is a complex issue,
it appears that the achievement of a truly mobile system for health professionals would require
provincial regulators to agree on a standardized regulatory framework. If a role for nurse
anesthetists were to be created in BC, the idea of professional portability should be a significant
consideration, not only within Canada but internationally as well. As I have identified, there are
many qualified nurses autonomously practicing this specialty in other countries. Portability of
professionals in this capacity could significantly contribute to the acceptance and sustainability
of this prospective role in BC, and potentially impact the willingness of other jurisdictions to
follow suit.

Another facilitator of the implementation of advanced practice nursing roles identified
across the literature is the concept of collaboration. The importance of promoting collaborative
and cordial relationships with members of other regulated health professionals, at all levels, is a
factor in determining the success of new roles (CNA, 2013; Schreiber, 2005). Creating
environments that support role development within the health care team, practice environment,
and wider system is dependent on strategies that utilize collaborative approaches (Bryant-
Lukosius et al., 2004). The PEPPA Framework - A Participatory, Evidence-Based, Patient-Focused Process for Advanced Practice Nursing Role Development, Implementation and Evaluation, created by Bryant Lukosious and DiCenso (2004), includes stakeholder participation and collaboration throughout the nine step process. This model was developed to provide a guide for administrators, health care providers, researchers, and policy-makers to develop, implement, and evaluate new advanced practice nursing roles in Canada. National nursing organizations such as the CNA, as well as provincial nursing organizations including CRNBC, BCNPA, and ARNBC, all identify collaboration and partnerships with other health professionals and organizations as being important facets of nursing practice (CNA, 2013; CRNBC, 2013a; BCNPA, 2013a; ARNBC, 2013). Changes over time pertaining to the sustainability and advancement of advanced practice roles (such as the NP) will require collaboration and commitment between jurisdictions and professions, legislators, practitioners, employers, and health human resource planners across regions (CNPI, 2006). I have included the concept of collaboration under the heading of national facilitators of new role implementation, but this notion can be considered a facilitator of new role implementation at all levels: international, national, and provincial.

Apart from concepts such as unified regulation and collaboration, there also have been several national initiatives that can be considered facilitators for advanced practice nursing role implementation. These efforts represent an interest and a commitment to the development of nursing roles that have potential to improve the health care system in this country. Some of these have been previously mentioned, including the work of the CNPI. Also, the CHSRF 10-year chair program to support policy research in advanced practice nursing has resulted in a considerable amount of literature around the development of advanced practice nursing roles in
Canada. One example of this is the special issue of *Canadian Journal of Nursing Leadership* on advanced practice nursing (described in Chapter 5). Many of the articles therein relate to policy, regulation, and education. A current understanding of how these concepts intersect with advanced practice nursing throughout Canada would be pivotal context for decision-makers contemplating a new nursing role in BC. This accumulation of knowledge would undoubtedly assist decision-makers in the development of such a prospect. Additionally, CHSRF and Health Canada’s Office of Nursing Policy funded a Decision Support Synthesis to support integration of APNs in Canada from a 25 million dollar Nursing Research Fund (DiCenso & Bryant-Lukosius, 2010). Canada’s national nursing association has also facilitated the advanced practice movement in several ways. The CNA’s Advanced Nursing Practice Framework (CNA, 2008) has undergone several revisions since 2000, and serves to provide consistency in role definition, competency development, and curricula by promoting a common understanding of advanced practice nursing in this country.

**British Columbia**

The final word regarding the provision of health care services in Canada is given by decision-makers at the provincial level. Because of this, a new role for nurses in anesthesia care would be facilitated by various factors affecting the local landscape. MacDonald and colleagues (2005) claim that opportunities for the development of new advanced practice nursing roles are created by political will, gaps in service, and physician shortages. The latter two factors have been previously discussed. By examining the context in BC, I will explain how political will can be influential for the development of a role for nurse anesthetists in this province, and how public marketing and knowledge dissemination can further facilitate successful role implementation.
A welcoming political climate has the potential to be a main driver for the prospect of nurse anesthesia practice in BC. As I explained in Chapter 6, the government is responsible for developing health care legislation, and delegating the regulation of health care professionals to their respective colleges. As well as legislation, government is responsible to provide the necessary funding to support the sustainability of the new role; which may also include an education program. Political will to initiate the process of integrating a new health care role does not necessarily indicate a reliable long term commitment that would ensure its success. As witnessed with NPs in BC, the lack of a stable funding commitment by the government to support these positions in the health care system can make successful integration of these professionals very difficult. The power of a government is reliant on getting elected (or re-elected) by the citizens of the province and the more popular it is, the better its chances are of becoming (or continuing to be) the party in power. Occasionally, those in power could make public announcements, or commitments that are never acted upon. Additionally, amid the competing tasks confronting government officials, the lack of a champion for a specific cause could result in little or no action on a particular initiative. Whether or not true political will is present as a strong facilitator for the development of the nurse anesthetist role in this province is unknown. With the public controversy over anesthetist shortages and pay schedules, operating room closures, and increased surgical wait times in BC (BCAS, 2013), the Liberal party announced its intention to explore alternatives such as nurse anesthetists. The extent of the government’s inclination to pursue this idea remains to be seen.

Should legislation, regulation, and funding mechanisms become established, successful integration of nurse anesthetists would be further enabled through public and professional support mechanisms. These include public relations in the form of marketing new roles to
policy-makers, administrators, other health care providers, and the public (Schreiber et al., 2005). The government could play a role in facilitating leaders among different groups at all levels to establish ways to support new roles, and educate policy-makers and administrators on the credibility and value of these new nurses. Professionals and the public would need to be educated about the ways this new role might benefit them, and how it enhances the system. Existing research on the competence and credibility of nurses working in these roles in other jurisdictions should be disseminated. New research emphasizing nurse-sensitive outcomes (instead of focusing solely on medically-based measures such as comparing nurses to doctors) should be conducted (Schreiber et al., 2005). Additionally, cooperative alliances with other health professionals throughout the integration process may assist in providing ongoing support for the role. A more participatory approach to change involving new advanced practice roles would ensure more widespread acceptance (Bryant Lukosius & DiCenso, 2004).
Chapter 8. Barriers to New Role Implementation

Developing and implementing a new role for nurses practicing in expanded scopes is a complex process, fraught with challenges. Anticipating the barriers that may prevent the success of these efforts can help decision-makers efficiently and productively create and enact policy. Given similar contexts, the introduction of a new role for nurse anesthetists in BC might invoke some of the same hurdles we know and understand from other jurisdictions, and also other existing advanced practice roles. Utilizing existing research to assist with policy formulation provides an avenue for decision-makers to consider both the rational and sensible components of an argument to better inform the process (Lomas, 2000). Continuing with the methodology of normative policy analysis that supports an appreciation for values while not undermining the role of facts, or ‘what is’, in policy processes (Robert & Zeckhauser, 2011), we can consider what we have learned through existing literature and use it to provide an account of ‘what is’. Barriers to new role implementation can be recognized in many of the concepts presented previously in this paper. Many of these ideas have been repeatedly identified by stakeholders involved in the process of implementing new advanced practice nursing roles. Understanding, planning, and predicting these difficulties could lessen the impact of potential challenges. These obstacles have been experienced internationally and throughout Canada with various advanced practice roles, and also more locally in BC with NPs. Three major categories that will be used to outline the barriers to advanced practice role implementation are; legislation and regulation, opposition of medical profession, and health services planning and funding mechanisms.

Legislation and Regulation

The concepts of legislation and regulation, as they relate to hindering the development of advanced practice nursing roles, have been touched upon in several chapters throughout this
manuscript. Internationally, we can identify several examples of barriers that have influenced the progression of advanced practice nursing roles. In a recent report published by the Organisation for Economic Co-operation and Development entitled *Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries*, some international barriers to advanced practice nursing were identified (Delamaire & Lafortune, 2010). In countries where legislation and regulation are centralised at the national level (meaning scope of practice is specifically defined in legislation), barriers exist to any modifications of advanced nursing practice. For example in France, very specific terms are defined in current national legislation regarding what each health profession can or cannot do. Because of this, any change to the scope of practice requires legislative change, giving rise to the need to confront sensitive issues every time a small change is proposed. If the specific practice competencies are defined by individual regulatory bodies responsible for smaller jurisdictions, any modifications required will be much less complicated and onerous. This concept was discussed in more detail in Chapter 7. Just as decentralisation of regulatory legislation is a facilitator, centralisation is a barrier to the implementation of advanced practice nursing roles internationally. With Canadian legislation showing a tendency towards decentralization, perhaps this particular barrier to advanced practice role implementation is minimized.

A further international barrier related to advanced practice nursing legislation pertains to the US. In Chapter 4, our discussion revealed the ambiguity and confusion around the direction and supervision requirement historically embedded throughout all levels of American legislation. I pointed out the fact that, in many cases, this legislation resulted in nothing more than a payment formality, whereby physicians receive compensation for services that nurses had performed (see Chapter 4). Not only does this legislation appear to have been redundant in many cases, it also
promoted financial inefficiencies, as two care providers were often paid for one service. I suspect through the “opt out” allowance that came into effect in 2001, many states have been able to operate more efficiently with regards to anesthesia service provision. With this example, we can see how national legislation provided a barrier to the productive management of a health care service. Schreiber and MacDonald (2008) warn of the inefficiencies that would accompany a decision to adopt a care model that utilizes a supervisory component in Canada. Payment for duplication of services in this country would serve as the antithesis to the goal of creating sustainable alternatives that support publicly-funded health care.

In Canada, the advanced practice movement has been slower to develop than for our southern counterparts. Since the US is a leader in the advanced practice nursing movement (Delamaire & Lafortune, 2010), we can learn from the evolution of their regulatory system. As previously discussed, the lack of a unified regulation system created a barrier to the portability of professionals across state lines. With current work to establish a national regulatory structure that allows advanced practice nurses to be certified and licensed to work in any participating state, access to care for Americans may improve. Similarly, acknowledgements in Canadian literature have identified concerns with unified national regulation. I have discussed in several areas throughout this paper how the lack of an integrated, national approach to regulating these health professionals serves as a barrier to portability of health professionals, and access to care. In addition to improving movability of professionals and accessibility of health services for Canadians, a harmonized approach might also strengthen the credibility of advanced practice nurses with the public and other health care professionals (Martin-Misener, 2010). It is possible that the lack of a pan-Canadian approach to regulation has slowed the progression and development of these roles throughout the country (CNA, 2009; CNPI, 2006; Schreiber et al.,
2005). If local decision-makers are considering a new nursing role in anesthesia care, it may be worthwhile to have a strong understanding about what is known about broad regulation and its effect on role sustainability.

**Opposition of Medical Profession**

The difference in opinion over what constitutes medical territory versus nursing practice has been a well-documented and longstanding issue. Because nurses working in expanded roles often participate in practice historically considered to be physician work, practice scopes often overlap resulting in confusion, role ambiguity, and tenuous relationships (DiCenso & Lukosius, 2010). With efforts by decision-makers to shift traditional care models from more hierarchical structures to those promoting more collegial, teamwork based approaches to improve efficiencies (Delamaire & Lafortune, 2010; San Martin-Rodriguez et al., 2005), it may be important to recognize the factors that inhibit these efforts. Since physicians can be considered powerful stakeholders in our health care system, resistance from this group would undoubtedly be a significant barrier to implementing a new advanced practice nursing role. Given that anesthesia practice in Canada has been widely accepted by health professionals and the public as a medical role, acceptance of nurses adopting this role could pose a challenge. If the government of BC is interested in successfully developing a role for nurses in anesthesia care, efforts to garner support from the medical community would most likely be necessary. Physicians may be integral participants in this process from the initial planning stages, including development of an education plan, to the implementation of nurse anesthetists into the clinical setting. By examining the concept of collaboration as it applies to our health care system and nurse/physician relationships, we can acquire a deeper understanding of the factors that, if not addressed, might intensify physician opposition to the implementation of the nurse anesthetist
role. The concept of collaboration in this capacity can be described as the process in which interdependent professionals voluntarily participate in collective action towards patient care needs (San Martin-Rodriguez et al., 2005). Since conflict has occurred throughout history over professional boundaries in anesthesia care (Dunlop, 2008), we can reasonably expect opposition from the medical community. However, understanding some of the perpetuating influences can allow development of the role in a manner designed to minimize the issue.

The extent of collaboration between health professionals can be determined by several factors. San Martin-Rodriguez and colleagues (2005) performed a literature review of empirical research, as well as Canadian policy initiatives (such as the Canadian Health Transition Fund) to identify three categories of determinants affecting the level of collaboration among professionals. They classified these factors into three levels: systemic, organizational, and interactional. Systemic determinants are those present outside of the institution and include social, cultural, professional, and educational components. Organizational determinants “combine attributes of the organization that define the work environment of the team, such as its structure and philosophy, team resources and administrative support, as well as communication and coordination mechanisms” (San Martin-Rodriguez et al., 2005). Interactional factors include aspects of relationships amongst team members including the existence of mutual trust, communication, respect, and willingness to collaborate.

We can understand the significance of the systemic determinants of collaboration as they apply to the implementation of nurse anesthetists into BC’s health care system by examining the determinants in reference to our context. Socially, power differences exist between professionals in a team that may affect the level of collaboration (San Martin-Rodriguez et al., 2005). Social status and gender stereotypes (many would argue) are embedded within the health care system,
and have potential to affect the way nurse anesthetists are accepted and treated by the established health care team. Cultural implications, perhaps seen in groups that hold a high value on autonomy and individualism, could impact the manner in which health care providers are willing to collaborate with a new team member. Another systemic determinant of collaborative practice involves the professional system. San Martin-Rodriguez and colleagues (2005) argue that instead of promoting a mutual recognition of interdependence between professionals, the process of professionalization promotes autonomy, domination, and control, leading to differentiation and territorial behaviours. Additionally, the socialization of professionals throughout their educational experiences further entrenches the lack of awareness regarding the values, skills, practices, and theoretical perspectives of professionals in other disciplines. True collaborative practice would require a deeper emphasis on professional pluralism, and an awareness of how knowledge and practice can be integrated across disciplines in educational settings. From the systemic perspective regarding collaboration, integrating of a role for nurses in anesthesia (with considerable scope of practice overlap with physicians) may have several complex hurdles to overcome.

Organizational determinants, as defined above, can play a pivotal role in creating barriers for collaboration. Traditional hierarchal structures may not facilitate collaborative principles, such as open communication and shared decision-making, as well as decentralized, flexible, horizontal structures (San Martin-Rodriguez et al., 2005). Furthermore, the philosophy of an organization that values participation, freedom, and fairness witnessed through strong administrative leadership, can greatly impact the extent of teamwork present in a health care institution. Time and resources devoted to establishing collaborative practices could also maximize the extent professionals are willing to work together. These might include;
interprofessional standards, policies and protocols, standardized and unified documentation, meetings and forums including all interdisciplinary team members (San Martin-Rodriguez et al., 2005). Since nurse anesthetists would not only be new members of the team, but would also represent an entire new class of health professional, a lack of organizational support may add to the difficulty in this transition.

The presence of communication, mutual respect, and trust between physicians and nurses are interactional determinants of collaboration. San Martin-Rodriguez and colleagues (2005) have determined from their literature review on the concept of collaboration that professionals must be willing to participate in this type of practice. Human resource departments often utilize standards and structures for collaboration that make it mandatory. A significant consideration in this regard, is that truly effective collaboration results voluntarily and from group cohesion. Open and active communication coupled with understanding and respect regarding the other health professional’s contribution, assist professionals to work better as a team. Personal maturity, previous experience in similar situations, and time are factors that build trusting relationships and mutual respect between coworkers.

Implementing a role for nurses in anesthesia care would require a great deal of teamwork with physicians as well as other health care professionals. Without a strong understanding of the factors that promote collaboration within health care teams, implementation of a new role could be very trying. Given the history of territorial conflict between physicians and nurses working in expanded roles, we can safely assume that this controversial role would be no different. The practice of anesthesia care in the US has been at the forefront of this issue for decades, stemming from the disagreement over what is medical practice and what is nursing practice. Nurse scholars have provided evidence for the practice of anesthesia as a nursing specialty (Schreiber
& MacDonald, 2010), just as physicians explicate the superiority of medical training and competence over nurses as anesthesia providers (ASA, 2013b). Decision-makers ought to consider strategies to improve collaboration at all levels: systemic, organizational, and interactional. Failure to recognize and address this barrier to new role implementation could make things very difficult for the pioneering nurses who take on this new role in Canada, and delay any potential benefits anticipated by their presence.

Health Services Planning and Funding Mechanisms

From the inception of an idea to implement a new health care role such as an advanced practice nurse, a well thought out approach must be taken. A crisis driven, poorly planned, “knee jerk” reaction to a human resource shortage will serve as a barrier to the sustainability of the role (DiCenso & Lukosius, 2010). Decision-makers must establish a solid foundation addressing concerns around role delineation, implementation, and evaluation before the process begins. If this is not properly executed, confusion and role ambiguity may result, as other professionals and the public do not fully understand the purpose and practice scope of the new health care professional. In the 1970s in Canada, nurses practicing in expanded scopes were considered to be operating in either a replacement, or a complementary role. The problem with the idea of physician replacement may be that nursing roles are left vulnerable to physician supplies, and may not be necessary in the event that there are sufficient numbers of doctors (Kaasalainen et al., 2010). It may also set nurses up to experience a double standard, as they are welcomed to practice in areas where physicians are not interested in practicing, but not perceived to be necessary in areas where there are ample physicians. Furthermore, if nurses are recognized for their unique and valuable contribution as part of the team, perhaps roles will have greater sustainability (Kaasalainen et al., 2010; Bryant Lukosius et al., 2004). In the context of nurse
anesthesia, this may present a particular challenge given the historical medicalization of this role in Canada. For nearly a century, anesthesia care has been understood and carried out as a physician’s duty. The difference in philosophies between a medical approach and a nursing orientation to practice (with a stronger focus on patient-centered, holistic care) might be more difficult for people to visualize, given the extent of practice overlap. A lack of appreciation and support for a new nursing role perceived as a physician replacement role, might not only be expected from physicians and the public, but also may be controversial within the nursing community (Schreiber et al., 2005). Other nurses might fail to see how a new role with so much practice overlap constitutes nursing practice, and be less likely to support it. Also, with one of the main arguments for the development of the role being the shortage of anesthesiologists in BC, a physician replacement perspective may be hard to avoid.

Consistent and appropriate funding mechanisms from provincial governments to support nurses practicing in advanced practice roles has been recognized as a barrier to sustainability throughout Canada (Kaasalainen et al., 2010; Schreiber et al., 2005). Besides a lack of long-term, stable funding to entrench new nursing roles into the health care system, the methods of payment used across the country have also served as a barrier to role implementation. The fee-for-service payment structure utilized in many jurisdictions for physician compensation as well as NP remuneration has been identified throughout the literature as a dual hindrance (Delamaire & Lafortune 2010; DiCenso & Lukosius, 2010; San Martin-Rodriguez et al., 2005). If physicians are forced to compete for patient consultations, further opposition to advanced practice nursing roles may result as financial losses are experienced because of the presence of another service provider. Additionally, collaboration and teamwork require time to become
established, outside of patient care. Fee-for-service payment mechanisms do little to promote collegiality in this regard, as practitioners would be focused on maximizing numbers of services.

In BC, a lack of stable funding to support NP roles was identified in the contextual overview. Despite a provincial initiative to create more positions for these professionals across the province, many NPs are prepared, but not practicing in these roles, due to a lack of funding. In their paper on the future of advanced practice nursing in BC, Schreiber and colleagues (2005) suggest that regulation and legislation of advanced practice roles should be concurrent with creating jobs, and poor planning in this capacity will equate to poor sustainability of the role. Since the government in BC allocates resources to individual health authorities to employ NPs, a lack of specifically directed funding intended for these positions might result in little incentive for employers to take them on. Aside from NP compensation, issues with funding in BC have resulted from the lack of an organizational strategy to deal with incidental costs, such as lab and diagnostic tests. While these costs have been compensated through Medicare for physicians, some issues appeared when determining how these tests would be funded if ordered by NPs. While some degree of confusion can be expected when introducing a new health care provider into an established system, acknowledging the obstacles that have become apparent from past efforts can foster a smoother transition for future efforts.
Chapter 9. Policy Alternatives

With a comprehensive understanding of the context surrounding the policy landscape of nurse anesthesia practice, the next step in this basic analysis is to synthesize this knowledge by identifying policy alternatives. Patton & Sawicki (1993) propose an initial step is to verify, define, and detail the problem. The preceding chapters have looked at the ways in which nurse anesthesia practice is situated internationally, as well as the ways advanced practice nurses are utilized in Canada. I have explored both the legislative and regulatory governance of nursing practice as it relates to this topic. Identifying facilitators and barriers to implementing new advanced practice nursing roles has also provided an important component to this study, by outlining viable alternatives. In basic policy analysis, next steps include identifying and evaluating policy alternatives (Patton & Sawicki, 1993). Options for decision-makers with regards to implementing a new role for nurses in anesthesia in BC will be first considered from a national perspective. Next, I will present the legislative alternatives including model of care, professional and public acceptance of the new role, funding, and education. Following legislative considerations, I will examine the regulatory options. These include registration requirements, standards of practice, and quality assurance processes.

National Considerations

The structure of the Canadian health care system leaves most decisions concerning health care to the discretion of individuals within provincial governments. The choice to adopt a role for nurses in anesthesia care would be no different. There are, however, some important alternatives from a federal perspective that decision-makers might consider. As we have identified, much work has been done on a national level to set the foundation to implement and support advanced practice nursing across the country. Throughout this paper (especially in
Chapter 5), national legislation and regulation have been discussed. Literature concerning policy around advanced nursing practice has been identified and described. By utilizing existing literature, local decision-makers can take advantage of the time and energy put forth by nursing leaders and other stakeholders over the last three decades to produce results and recommendations concerning advanced practice nursing roles in Canada. Strategic partnerships have been created between provincial and federal leaders, as well as national bodies and organizations, resulting in the production of some key documents related to advanced practice nursing. Policy officials could enhance their understanding of this movement and the development of these expanded roles, by examining the resources produced by the CNA (2008, 2009, 2013), CNPI (2006a, 2006b), and CHSRF (DiCenso & Bryant-Lukosious 2010). These publications have been created especially for those involved in policy creation for advanced practice nursing roles. The 10 year APN Chair Program funded by the CHSRF saw the development of an APN Literature Database to provide quick and free access for graduate students, researchers, managers, advanced practice nurses, and policy makers to scholarly information concerning the development, implementation, and evaluation of advanced practice nursing roles (McMaster University, 2013). This database provides quick and easy access to a plethora of pertinent information that specifically addresses this topic. The main policy alternative here is the extent that decision-makers will use existing evidence and recommendations already generated about the development and implementation of advanced practice nursing roles in Canada.

Legislative Alternatives

The decision to implement a new role for nurses in anesthesia care would be made by the provincial government. From the normative perspective of policy analysis, we have examined
the values that may be at play with the current Liberal government. We have also explored the process that would take place in introducing a new health care role in this province. There are many alternatives for government in accomplishing this innovative undertaking. Since this role has never formally existed in Canada, there is no template for how this might best be accomplished. Decisions must be made concerning such things as model of care, fee structure, education, public and professional acceptance of the role, and marketing. We can gain a deeper understanding of the alternatives by examining options for each, along with the various pros and cons that would accompany them.

*Model of Care.*

If the government decides to address long surgical wait times and a shortage of anesthesiologists by implementing a new role for nurses in anesthesia provision, a model of care must be chosen. Nurses could be trained to function in a physician assistant role, or policy-makers could follow in the footsteps of the US, and regulate nurses to practice in an autonomous role. Since many jurisdictions in Canada already make use of anesthesia assistants, I have focused more in this paper on a prospective autonomous role for nurses. The idea of physician assistants would most likely result in less controversy and physician opposition than training nurses to practice autonomously. A question of importance here is whether an assistant would help address the problem of a shortage of doctors in this field. If a physician has to be present and ultimately responsible for every induction that takes place, assistants may do little to solve the human resource problem that so clearly exists. Introducing an autonomous role for nurses in anesthesia care would have the possibility of filling this void in care, and might even reduce costs (Schreiber & MacDonald, 2003).
Legislative alternatives exist for autonomously practicing nurse anesthetists regarding title and professional designation. Since policy-makers must legislate health care workers to legally practice under the provisions of the Health Care Act, officials must decide how a new nursing role would fit within existing legislation. Registered Nurses and Nurse Practitioners are grouped together in the Act under Nursing (Registered). Their scope of practice is defined through the identification of “Restricted Activities”. Nurses in anesthesia care would require amendments to the Act. If legislated under the NP title, it is possible that fewer amendments would be required, where more would be required for a new title such as Nurse Anesthetist. While differences in practice scope and restricted activities exist between NPs and nurse anesthetists, a broad approach in this legislation might make implementation of the new role less complicated. If the responsibility to define the role rests more with the regulatory body, future alterations related to scope of practice would not have to be dealt with at the government level.

A possible preliminary step in determining how this new professional would be included in legislation might be to examine the scope of practice of NPs and compare it with the scope of practice of an autonomously practicing nurse anesthetist. This would reveal the extent of overlap between the two roles, perhaps clarifying the feasibility of implementing the new role under the NP umbrella. The AANA publicly provides two documents outlining the Scope of Nurse Anesthesia Practice, and the Standards for Nurse Anesthesia Practice. These can be viewed in Appendix F. As previously discussed in this paper, the US has a well-established role for nurses in anesthesia practice, which could be comparable to a prospective role in BC. Comparing the similarities between these two roles would also provide a good starting point from which to identify areas where new legislation is needed, and how much complexity would be involved. Regardless of the specific legislation written for a new nursing role, researchers recommend
ensuring the legislation is enabling, complete, and inclusive, with a plan to evaluate outcome indicators (Martin-Misener, 2010; Schreiber et al., 2005). Inclusive legislation might include areas of other statutes that pertain to nurses acting in expanded roles. These might include vital statistics (signing death certificates) and performing motor vehicle driver medical exams. Other intersecting legislation could involve the Canada Pension Act, Tax Act, and the Employment Insurance Act. While these examples may or may not be applicable for nurse anesthetists, a lack of inclusiveness in legislating other advanced practice nursing roles in the past resulted in practice complications for these practitioners.

*Professional and Public Acceptance of the New Role.*

Government officials also must decide on the level of professional collaboration and public marketing they are willing to support. The success of implementing a new health care role may be influenced by the financial commitment aimed at garnering professional support as well as public understanding for the purpose and function of the role. Given the history of controversy between physicians and nurses in anesthesia provision, the level of collegiality can be affected by the government’s acknowledgement and willingness to address this issue. Professionals can be mandated to act in a collaborative manner, or the expectation can be conveyed that government would like cooperation from all groups involved. A top-down approach to collaboration may be somewhat useful; however, San Martin-Rodriguez and colleagues (2005) argue that true teamwork comes from willing and dedicated individuals. Therefore, financial support would be needed to promote these types of objectives, since trusting relationships require time and effort to develop at all levels throughout the system. Peer networks can be fostered, champions identified, and coalition-building facilitated to support implementation of a new role (Schreiber et al., 2005).
In addition, it would be government’s role to assist in shaping public expectations. Public acceptance of nurses in anesthesia is a key component in the introduction of a new health care role. Unacceptable wait times have been called the “Achilles heel” of the Canadian health care system (Priest, Rachlis & Cohen, 2007). As shortages of anesthesiologists, aging populations, and advances in surgical techniques increase the demand for surgical services, patients do not always get timely care. If the government intends to address this issue by implementing a new anesthesia care provider, public awareness of the role through marketing might positively influence its success. With the presence of user-pay private surgical clinics in BC, patients who are able, and do not wish to wait, often pay for their surgeries. Hence the values of government are important, as they pertain to philosophies concerning private, for-profit, health care reforms. Allocation of resources will likely be affected by these values, along with public opinion. Concepts of collaboration and public acceptance are particularly significant in decision-making processes, and would need to be included in the financial plan. Factors such as these could affect the success and sustainability of a novel health care role.

Funding.

The Ministry of Health in the BC government would provide the majority of funding for an initiative to create a role for nurses in anesthesia care. There has been repeated acknowledgement of a lack of long term, sustainable funding to support nurses in advanced practice nursing roles throughout Canada. The number of NPs working in this country increased from 800 to 1626 between 2004 and 2008, but a disconnect existed between this number and the number of paid NP positions (Martin-Misener, 2010). In BC, it remains a struggle to find jobs for the NPs who are prepared to practice. With the province’s commitment to fund 45 new NP positions per year over the next three years (starting in 2012/2013) in an effort to increase access
to primary health care services, it appears that some progress is being made. Since legislation
and regulation of a new role might necessitate the concurrent development of an educational
program, officials may include funding for students of this new program as part of the
preliminary financial plan. While there are many components requiring budgetary support,
perhaps one of the biggest challenges would be the long term financial commitment necessary to
firmly establish the role. With the relatively shorter term provincial election cycles, longer term
projects inevitably become more of a challenge. This underscores the need for in-depth, careful
preliminary planning that can provide a solid foundation for future governments to build upon
based on population and systemic needs.

Along with sustainable funding, compensation mechanisms for advanced practice nurses
have been an issue in our health care system, and would need to be addressed for a new nursing
role. I have previously discussed the problems associated with the fee-for-service model of
payment as a compensation structure that may promote competition for resources while
discouraging collaboration. Additionally, a fee schedule that leaves a physician in control of a
nurse’s wage (identified in Chapter 5) risks propagation of the physician-substitute mentality,
under appreciation for nursing’s unique scope, and perpetuation of a status hierarchy (Schreiber
et al., 2005). Alternatives for nurse anesthetist compensation include a fixed salary, or group-
based payment. Given the nature of autonomous anesthesia practice, some type of group-based
payment might be a less likely fit.

Education.

In the event a new class of health professional is implemented, the provincial government
decides the ways which these professionals acquire the necessary education. The educational
background of a health professional is a key consideration for both legislators and regulators.
The decision and responsibility to support practitioners in acquiring the education needed to practice in this jurisdiction is the government’s role, whereas the recognition of education programs deeming an individual fit to practice is granted by the regulatory body. There are two clear options for government officials with regards to providing educational support for nurse anesthetists in BC. They could choose to assimilate trained nurse anesthesia providers into the local health care system, or they could develop a local educational program.

The first option involves employing trained nurses who have obtained their education and training from other jurisdictions. Not only would this be a timely response to a human resource shortage, but would also spare the expense and complexity of developing a new program in BC. Incorporating fully-trained, competent, autonomously-practicing, nurse anesthetists who function with the confidence and abilities of Canadian physician anesthesiologists into functioning operating rooms may also alleviate some controversy. Perhaps a nurse with experience in providing anesthesia care might be accepted as more professionally credible to colleagues than a Canadian trained nurse from a brand new program, breaking new ground in the field.

Incorporating appropriately trained anesthesia providers into the BC context would, however, bring challenges as well. These individuals would most likely be nurses trained in the US. Recruitment incentives would need to be planned and carried out to attract a reliable and sustainable workforce. Decision-makers would probably want to maintain good relations with their neighbours by ensuring American jurisdictions were not being left disadvantaged through depletion of their workforce. Compensation for nurse anesthetists would need to be adequate enough to attract high quality care providers. The total cost of this venture would need to be
carefully weighed with the benefits it would provide. The significance of these factors would be worth determining in the early planning stages.

Establishing a home-grown educational training program in BC is another viable option for education. While there are many accredited schools preparing nurses to autonomously practice anesthesia, none of them exist in Canada. Creating an educational program for nurses to learn the necessary skills to function in this capacity would be a complex and time consuming task. Questions around program structure, facilities, staff, and of course funding, would be paramount. Naturally, province officials would want to investigate successful models that are used in other countries. In the US, there are 112 accredited Nurse Anesthesia education programs preparing nurses to become CRNAs. Government administrators could choose to adopt (or purchase) an existing program that best meets the province’s needs from one of many accredited curriculums. Addressing issues of compatibility between existing tried, and proven educational programs with those that could exist in this province would be worthwhile. Such programs could be incorporated into an institution already providing separate nursing and anesthesia medical training. Amalgamating educational resources (including staff) to provide a comprehensive educational program in facilities where necessary equipment and personnel are available, would create the foundation needed for this type of program. Additionally, a curriculum adapted to the Canadian system could be more easily adopted by other provinces. As evidenced by the effort put forth in Ontario (where nurses were included in initiatives to improve access to anesthesia services), BC is not the only province with a shortage of anesthesia providers. Researchers have identified that a standardized approach to the educational preparation of advanced practice nurses across Canada would better facilitate integration of these roles into the national health care system (DiCenso et al., 2010; Martin-Misener, 2010; Schreiber
et al, 2005). Further sustainability measures might address the accessibility of the program to nurses from other provinces as well as remote regions. If the opportunity to learn a new specialty were available in this province, an increased interest in the profession could result, as nurses would have the opportunity to expand their interests and practice.

Creating a novel education program in BC for nurse anesthetists would not be without some significant challenges. An undertaking of this magnitude would consume considerable time and resources. In a health care system already challenged with financial constraints and human resource shortages, decision-makers would have to carefully investigate whether such an investment would result in long-term benefit. Many alternatives exist for policy-makers around developing educational programs to train nurses in anesthesia care in this province.

*Regulatory Alternatives*

In identifying viable alternatives for the regulation of a nurse anesthetist role in BC, we must consider the values and goals of the regulatory body as well as the discrete tasks involved in this endeavour. The initial process would involve a decision by government detailing the intended practice capacity of the nurse anesthetist. Since I have focused on an autonomous role for nurses, and provided rationale for this focus previously in the paper, the regulatory policy alternatives will also follow this direction. It should be expected that a decision about the model of care would be made after lengthy and exhaustive consultations with various stakeholders throughout the province to determine the precise needs of health care institutions. A detailed plan would most likely have included the ways which the new health care worker would be educated and successfully integrated into the existing infrastructure. Ideally, this plan would include long-term strategies for supporting, sustaining, and evaluating the role. Once these factors have been considered, and the decision to regulate an autonomous nurse anesthesia
provider has been made, it is CRNBC’s role to develop the formal and specific practice parameters that will govern the role. Given past regulatory efforts in BC with the NP, we have witnessed broad government legislation of these professionals, coupled with detailed regulation and role definition specified by CRNBC. Shifting responsibilities from government to the regulatory college to more acutely define the role and develop practice standards, perhaps signals an appreciation for the benefits of decentralized legislation as discussed in previous chapters. While this is all speculative at this time, the approach and philosophies taken by actors in past processes may provide indications of the future direction decision-makers may take. For this reason, I will present regulatory alternatives as though the college has been granted this responsibility in a similar manner to which NP regulation was developed, with the understanding that the extent of this responsibility is ultimately determined by government, and would probably involve a highly collaborative process amongst many stakeholders. This elaborate task would bring to light many alternatives, with safe and ethical nursing care at the forefront of all decisions.

In order to understand the process and complexities of regulating a role, we can look at how the college has regulated other nurses in this province, particularly NPs. In Chapter 6, I identified the role and values of the regulatory body. I also investigated the process of introducing NPs in this province, including the regulatory challenges that occurred and the resultant conclusions that were made. There are three main areas for consideration in the regulation of a new nursing role (such as nurse anesthesia), and registration of an applicant to legally practice in BC. The first consideration pertains to the requirements an individual must meet before they can become licensed to practice in BC. We can begin our examination of the context of regulation by exploring the initial registration requirements. This will present a
platform from which to investigate the process and the alternatives involved in developing entry-to-practice competencies, recognizing education programs (and options for acquiring education), completing eligibility examinations, and ensuring practice hours have been completed.

Secondly, the standards of practice defining the professional role must be developed, including limits and conditions that govern practice. Finally, regulators are responsible to identify the methods used to assure the quality of nursing practice is, and will continue to be, upheld. I will use these three categories to present alternatives for regulating nurse anesthetists in BC.

**Registration Requirements.**

Entry-to-practice competencies and graduation from a recognized educational program are two of the four key components of initial registration. These parameters provide the foundation for determining whether an applicant has acquired the skills and abilities necessary to begin practicing as a licensed professional. Entry-to-practice competencies are acquired as a direct result of the education the applicant has received, requiring regulators recognize education programs as appropriate and necessary for the evaluation of applicants. With this in mind, the importance of a collaborative relationship between educators and regulators is clear. These individuals work together to ensure that programs are providing quality learning environments necessary to ensure practitioners are adept in their abilities, and capable of functioning at an acceptable level. It would be very difficult for a regulatory agency to individually verify that every nurse is competent in performing each specific practice requirement. For this reason, program recognition is a vital component of the initial registration process. In BC, there are nursing programs that CRNBC currently recognizes as appropriate for the education of RNs and NPs. As we know, there are no programs in this province, or country, in place to train nurses to practice anesthesia autonomously. Therefore, decision-makers must explore alternatives for the
development of entry-to-practice competencies and for the recognition of education programs in the event a choice is made to implement these practitioners.

By exploring the methods employed in the US, we find a vast resource of information to assist with the formation of practice competencies. CRNAs play a pivotal role in the autonomous administration of anesthetics in the US. Because of great similarities in western medical practices between the US and Canada, it may be plausible that regulators in BC could utilize the tried and proven competencies from the US. Where practice discrepancies exist (due to different population needs or health care philosophies), the regulation could be fine-tuned to fit the unique landscape of this province. This approach could prove both practical and thorough, since nurses have been well-established in anesthesia care in the US for decades. A second alternative might be to examine the role description of Canadian anesthesiologists and define entry-to-practice competencies based on practice similarities that exist between nurse anesthetists and anesthesiologists. This approach could effectively address the technical aspects of practice, since role descriptions between autonomously-practicing nurses and anesthesiologists would be very similar. One drawback to this path centers on concerns regarding professional identity. Since nurses have a unique approach to practice distinct from medical practice, defining competencies based on physicians work might bring in question the nursing aspects of the role. This ambiguity may add to the tensions that might already exist around professional boundaries. Earlier in this paper, I discussed the difficulties inherent in describing nurses who practice in expanded roles as physician substitutes. Since this regulation would be the first of its kind in Canada, it is imperative that regulation decisions are made with due care and attention, considering all possible implications.
NPs in Canada are recognized as advanced practice nurses; therefore, competencies describing their practice, as identified by the CNA in *Advanced Nursing Practice: A National Framework* (2008), are incorporated in the competencies for NPs as outlined by CRNBC. A role in nurse anesthesia could also be considered an advanced practice role if decision-makers choose to define it as such (MacDonald et al., 2005). Deciding to include nurse anesthetists under the advanced practice umbrella could have significant implications for the role. Most of the discussions in this paper pertaining to the Canadian context of nursing have been centered on the evolution of APNs as defined in Chapter 2. As I have established, there has been a considerable amount of time and resources devoted to the implementation of NPs by various stakeholders and policy makers. National support might be more readily available to assist with the implementation a nurse anesthetist role if it is clear that the role also has potential for other jurisdictions in Canada to address health system issues, such as inadequate supplies of health professionals. The option to include APN-based competencies in the core competency framework for nurse anesthetists should be considered by regulators.

Once competencies have been defined and developed, the process for recognizing appropriate educational programs would need to be determined. I discussed some alternatives for nurse anesthetist education as they pertain to legislation. Here, options for education will be identified as they relate to regulation, since educational background of the applicants is a significant factor in regulation. Two obvious alternatives exist. The first would involve completion of a program developed in BC, and the second would be for individuals to become registered to practice in BC, having acquired their education elsewhere. If the government of BC were to invest in creating a program to train nurse anesthetists, this ground-up approach would
enable collaboration in the creation of the program, whereby regulators and educators could have complete control in ensuring the necessary competencies are acquired.

In the event the government opts not to create a program to educate nurse anesthetists in BC, but still wants to employ them, a second alternative could be explored. This would involve program recognition of new practitioners from the US or other jurisdictions, and a process for determining whether existing American institutions could provide appropriate training for nurse anesthesia practice in BC. This would open the door for Canadian nurses to train in one of the many accredited schools in the US, and could also allow previously-trained nurses from the US to immigrate to this province and practice anesthesia. Regulatory officials would need to develop a system that recognizes the credentials of nurses who are trained abroad. CRNBC already has an Education Program Review Committee, whereby members use entry-level competencies to review and recognize RN education programs. The College could appoint a committee to do the same for nurse anesthesia programs. CRNBC has a system to initially register NPs, including those who have been trained in other jurisdictions. To become registered, NPs must have completed a recognized education program equivalent to a Master’s level that meets the competencies outlined for NP practice in BC.

For a new nurse anesthesia specialty, regulators would need to decide how to assess various education programs. One alternative would be to individually review each of the competencies obtained from institutions providing training for individual applicants. While this method would be thorough, it might be time-consuming and tedious since there are so many institutions in the US that train nurse anesthetists. Another option might be to develop a system that utilizes existing resources. The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) in the US, discussed in Chapter 4, is the authority responsible to ensure the
quality of nurse anesthesia programs in the US. CRNBC could review the criteria used by this organization to determine whether the level of program acceptance by this body is of adequate quality for practice in BC. This could allow individuals educated in a COA approved program to meet the educational requirement set forth for anesthesia practice in BC. If provincial regulators could make use of the COA’s accreditation system to verify the education of individual practitioners from the US, the process of registering applicants from the US would be much simpler.

Another alternative (perhaps in addition to the former) might be for CRNBC to choose a geographically close American institution and develop a partnership. Such an agreement would include recognition and acceptance by the CRNBC of the nurse anesthesia program. Financial agreements could also support the attendance of Canadian students, or those intending to practice in Canada, with curricular elements of the program particularly designed for practice in this country, if required. The intricacies, including legislative and financial considerations involved in such a partnership, would need to be explored. Developing a system that utilizes an educational program already existing in close geographic proximity in the US may be an attractive alternative for educating local professionals and facilitating the incorporation of American nurse anesthetists.

In addition to entry-to-practice competencies and education program recognition, an entrance examination is the third criterion used by regulators in BC to determine whether an individual is appropriately prepared to become registered to practice. For NP practice in this province, regulators decided on both a clinical and a written examination. In Canada, the most common clinical examination used for health professionals (including NPs, physicians, physiotherapists, and pharmacists) is the Objective Structured Clinical Examination (OSCE)
(Wearing, Black & Kline, 2010). For BC’s NPs, this exam uses real life situations whereby the applicants are presented 15-16 different clinical situations at various stations, and are evaluated on their clinical performance (CRNBC, 2013c). Written exams chosen by regulators for the Adult, Pediatric, and Family categories of NP practice in this province are from the American Nurses Credentialing Center (ANCC) (CRNBC, 2013c). For nurse anesthesia practice in the US, certification as a CRNA is dependent on passing the National Certification Exam (NCE) developed and facilitated by the NBCRNA (as discussed in Chapter 4). This exam is a three hour, computerized exam including multiple correct-response questions, calculations, drag and drop, hotspots (clicking on a region), and graphics/videos. The NCE uses computerized adaptive testing (CAT) methodology based on the psychometric framework of Item Response Theory. In this system, an estimate of competence is calculated following a candidate’s response, and the next question is chosen based on the appropriate level of difficulty and content to best assess the candidate’s knowledge base (NBCRNA, 2013b). Details on this exam and its framework are outlined in the 2013-120th National Certification Examination (NCE) Candidate Handbook (NBCRNA, 2013c). With more than 45,000 practicing nurse anesthetists in the US (AANA, 2013b), there remains little doubt of the extensive research and evaluation that has gone into the development of this exam. Adopting this exam as a registration requirement for nurse anesthetists in BC just as regulators made use of an American exam for NPs in this province, could be a viable regulatory alternative.

Additional requirements for NPs to become initially registered in BC include having practicing registration as an RN, or eligibility for this, as well as the completion of practice hours. A new advanced practice nursing role would likely include these requirements as well. The foundation for the practice of all registered nurses in BC (including NPs) is formed by the
competencies outlined in *Competencies in the Context of Entry-level Registered Nurse Practice in British Columbia* (2013g). Competencies for a novel role for advanced practice nurses in anesthesia would probably build on the expectations of RN practice in this province, while addressing the differences involved in the specialty of anesthesia practice. The practice hours requirement for registration as an NP in BC is included in the practicum of the nurse practitioner education program. At the University of Victoria for instance, the requirement is 800 practicum hours and face-to-face instruction in each practice term (University of Victoria, 2013). If the individual is an NP educated elsewhere, they must have practiced as an NP for at least 900 hours. For CRNA certification, individuals must have participated in a training program including the completion of approximately 2500 clinical hours and administration of about 850 anesthetics (AANA, 2013d). Regulators in BC have the option of creating their own practice hours requirement for nurse anesthetists, or follow the lead of other regulatory and certification bodies. Either of these options would involve an investigation to find the best available evidence to determine readiness to practice in this capacity.

*Standards of Practice.*

The government of BC has entrusted CRNBC to establish and define the minimum expected and achievable level of performance for RN, NP and Certified Registered Nurse practice. Developed by the regulatory body, these statements make up the Standards of Practice for all nurses recognized by the regulatory body. Three categories are included in these statements defining practice expectations: Practice Standards, Scope of Practice Standards, and Professional Standards. There are 18 Practice standards. Their main purpose is to direct and guide nursing practice by identifying the level of performance that registrants must achieve in specific aspects of their practice (CRNBC, 2013h). Examples include regulations concerning
documentation and dispensing medications. The College uses indicators to provide further
direction for how to achieve the expected level of performance. Scope of Practice Standards are
divided into RN Scope of Practice, and NP Scope of Practice. These regulations identify the
specific standards, limits, and conditions related to nursing practice. They define whether
specific practices can be performed by RNs or NPs. An example found in the NP Scope of
Practice Standards, are the limits and conditions by which NPs can order diagnostic services
such as laboratory and X-ray (CRNBC, 2013h). Professional Standards make up the third
category of practice standards and apply to both RNs and NPs. The four categories of
Professional Standards address Professional Responsibility and Accountability, Knowledge-
Based Practice, Client-Focused Provision of Service, and Ethical Practice.

In creating regulations for nurse anesthetists in BC, CRNBC would need to amalgamate
the new regulation into their existing framework. Standards of practice have been developed for
the unique context and population needs of this province and many of them would apply to
nurses in a new specialty as well. We would see considerable variation in Scope of Practice
Standards since anesthesia is a distinct practice area with a very different practice scope than
RNors NPs. The standards, limits, and conditions governing this role would be largely
dependent on the model of care chosen and the accompanying legislation. This area of
regulation would likely be closely associated with the entry-to-practice, core competencies
defined under registration requirements, as these conditions of practice would be based on the
practicing competencies of the nurse. Developing standards of practice for a new specialty role
in BC would undoubtedly be a complex and onerous task. Regulators do, however, have a well-
developed framework established to convey the expectations for other nurses in this province
practicing in various capacities, including those in advanced practice roles.
Quality Assurance.

The primary value of the regulatory organization in this province is protection of the public by ensuring safe and ethical nursing care and promote high practice standards. To uphold this value through the regulation of nurses, a system has been established to continually monitor the quality of practice of these professionals. CRNBC’s quality assurance program for NPs builds on the renewal expectations of RNs. The advanced practice nurses must meet minimum practice hours, complete a self-assessment, complete a review of their client documentation, seek and receive peer feedback, develop and implement a professional development plan, select three professional development activities provided by the college, evaluate last year’s professional development, and participate in onsite peer review of their practice when scheduled (CRNBC, 2013e). Registration renewal is an annual process. In the US, CRNAs also must meet continuing competency requirements including a biennial recertification. A review is done by NBCRNA to ensure the individual has a current RN licence, participated in continuing education (40 credits), provided certification of engagement in anesthesia practice during the two-year period, and verified the absence of mental or physical problems that might interfere with practice (NBCRNA, 2013b). New recertification requirements for CRNAs come into effect in 2015. These include a recertification exam to be written every eight years.

Regulators looking to assure the high quality practice of nurse anesthetists in this jurisdiction have many resources to draw on when deciding how to best structure this process. While NP practice differs greatly from the practice scope of a nurse anesthetist, CRNBC representatives could build on the existing system of quality assurance already in place for current practicing nurses in this province. Another option would be to utilize components of the American CRNA recertification process, as this system has been developed based on decades of
practical experience with nurses in anesthesia care. With a more complex scope of practice including diagnosing and treating disorders, NPs in BC participate in a more rigorous renewal process. It can be expected that regulators would carefully choose quality assurance measures, to ensure practice competencies and standards are adequately being met. This central regulatory consideration is an important process in ensuring the continued protection of the public in BC.
Conclusion

The policy landscape of nurse anesthesia practice in BC has been analyzed in this document. An overview of the current political sentiment in BC reveals the possibility that a shortage of anesthesia providers, together with the controversy surrounding anesthesiologist compensation, have created the potential for a new nursing role in anesthesia care. With the understanding that not all political ideas amount to action, I have chosen to investigate the alternatives for policy change that exist in the event government chooses to move ahead with this initiative. A comprehensive investigation of the policy context surrounding this issue provided the foundation to expose these alternatives. Elements of the Health Policy Triangle (Appendix A) guided the analysis since they encompass key factors of context, including actors, process, and content. By examining national and state policy pertaining to nurse anesthesia in the US, we came to better understand the legislative and regulatory structures governing this effective nursing role in another country. Next, a look at the evolution and current status of advanced practice nursing in Canada further explored the contextual background of the issue. Following the national overview, I more deeply investigated the actors involved in policy processes in BC, and included the political, legislative, and regulatory approaches that occurred in BC with the development of the NP. The exploration of the policy landscape regarding a potential role for nurses in anesthesia care was strengthened with the identification of barriers and facilitators of new role implementation. Finally, policy alternatives for the implementation of nurse anesthetists into the health care context of BC were presented. The final portion of this assessment involved synthesizing and summarizing various elements of the knowledge acquired throughout the investigation. This examination focused on elements of policy that may be of interest to decision-makers contemplating a new nursing role in this province. The use of
normative philosophy prompted analysis of the value systems that are inevitably incorporated into policy systems by decision-makers. Consequently, this perspective provided me a means by which to apply the contextual knowledge and conceive (perhaps) more realistic policy alternatives.

This analysis could be considered a ‘basic analysis’, setting it apart from many traditional policy analyses. My intent was not to propose recommendations or prescriptive conclusions; rather, I attempted to objectively reveal various alternatives that exist regarding a potential role for nurses in anesthesia care in BC. Patton & Sawicki’s (1993) ideas in *Basic Methods of Policy Analysis* provided an ideal platform for me to complete this paper, as this practical, uncomplicated approach to policy analysis enhanced my rudimentary understanding of this type of work. Limitations of this analysis were rooted in the preliminary and confidential nature of this policy prospect. Had more information on the progress and status of the idea been publicly available, a more directed and detailed investigation could have resulted, increasing the potential of this analysis to address specific knowledge deficits. The novel idea to implement nurse anesthetists into BC’s health care system may or may not come to fruition. In the absence of a large scale, heavily resourced analysis to provide information to decision-makers, professionals, the public, or anyone interested in this topic, such a basic analysis may provide some understanding about the context and policy alternatives that exist regarding nurse anesthesia in BC.

This analysis detailed the various options available for the implementation of a new health care practitioner in this province. From a national perspective, significant effort and resources have gone into analyzing the various factors that facilitate the implementation of advanced practice nursing roles in this country. Professional organizations, federal government
officials, policy-makers, and national associations have all invested time and energy into initiatives supporting the successful integration of these roles. Utilizing resources from these initiatives would be worthwhile for decision-makers in BC, if they decide to legislate and regulate nurse anesthesia practice. Provincially, a variety of options exist for government around models of care, titling, marketing, funding, and education. These decisions are complex, and will play a part in determining the potential success of the role. Regulators with the responsibility of identifying and articulating the specific practice parameters governing the new role would have a particularly challenging task. Given the decentralized process used in the recent regulation of NPs in BC, regulators would most likely be granted the responsibility to determine the registration requirements, standards of practice, and quality assurance processes. This endeavour would require ample knowledge, time, and resources. Regulatory officials already have systems in place and a regulatory framework for overseeing the practice of nurses in BC. With appropriate modifications where scope of practice differs, perhaps much of the existing regulation pertaining to the professional practice of nurses in BC could be applicable to that of nurse anesthetists. Despite this, the responsibility involved in effectively regulating this new role would be stellar. Nurse anesthetists would not only be new to this province, but they have never before been legislated or regulated in this country.

The decision to integrate nurse anesthetists would take years of planning and effort. The implications for the nursing profession would be immense. A highly technical and skill-intensive specialty, such as anesthesiology, would provide an opportunity for nurses to practice in a new capacity. These nurses would bring a new perspective to the surgical experience of their clients. Patient-centered, holistic approaches to pain control and sedation have great potential in the skilful guidance of patients through difficult medical interventions. This new
role may alter the professional image of nursing to the public, as these professionals take part in patient care on a new level. Additionally, the new scope of practice accompanying the role has potential to attract new individuals to the nursing profession, who might otherwise have chosen a different career.

The potential effects of the new role for the health care system are significant. If appropriately implemented, these nurses could assist in alleviating the shortage of qualified individuals to administer anesthesia. This could reduce the time patients have to wait for surgery. This initiative might relieve some pressure on the government to come up with alternatives to timely treatment, such as the expansion of private clinics. Nurse anesthetists may also bring additional benefits including cost efficiencies and improved quality of care for BC residents.

It is difficult to predict at this time whether the BC government will move ahead with plans to implement nurse anesthetists in this province. If they do, a considerable amount of work would need to be done. I have examined the context of the policy landscape surrounding this issue, and proposed possible alternatives for decision-makers and regulators in this province. It appears evident that the success of the role would be determined by the extent of careful planning, financial commitment, and use of existing knowledge in this field. With these factors in place, the positive effects of nurse anesthetists practicing in BC could make the effort worthwhile.
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Appendix A

Health Policy Triangle

Walt and Gilson, 1994

Appendix B

Appendix C

BLOOMBERG

Nurse Practitioner
Anesthesia Care
FAQ

1. What are the course requirements?

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credit Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter 2011</td>
<td>NUR 1201</td>
<td>½ credit seminar course</td>
</tr>
<tr>
<td>Spring/Summer 2011</td>
<td>NUR 1209</td>
<td>1 full credit course (includes 300 clinical hours)</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>NUR 1202</td>
<td>½ credit seminar course</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>NUR 1210</td>
<td>1 full credit course (includes 300 clinical hours)</td>
</tr>
</tbody>
</table>

2. How long does it take to complete the program?
   - 1 consecutive year; courses are offered once per year and must be taken in sequence

3. What types of roles are available to NP-A?
   - Nurse Practitioner roles that incorporate care of patients and families throughout the perioperative process
   - There may be an intra-operative component to the role but NP-A will not be the sole provider of anesthesia (this is not a Certified Nurse Anaesthetist role as in the US)
   - NP-A may work on or lead an Acute pain team with anesthesia colleagues
   - NP-A may work in diagnostic areas where patients require sedation/anesthesia with airway management

4. Can I write an exam to be licensed as an NP-A?
   - At this time there is no plan for a separate licensure by the College of Nurses of Ontario for the Nurse Practitioner- Anesthesia Care. You would need to meet all of the requirements for licensure as either NP – Adult or NP – Pediatrics

5. Is the course available on-line or by distance education?
   - The courses are only available at the downtown University of Toronto, Lawrence S. Bloomberg Faculty of Nursing campus.

6. What is the tuition cost of the program?
   - The tuition costs are to be determined upon final approval of the program. We expect the 4 core courses to cost approximately $12,000.00 with the prerequisite basic anesthesia technology course an additional $500.00 for a total of approx $18,000.00

7. Are there bursaries or funding to support the cost of tuition?
   - There may be some funding support available from the Faculty. This is undetermined at the moment and should not be expected.
   - Applicants are also encouraged to explore external funding options (e.g. through work, Nurse Practitioner Association of Ontario, Registered Nurses Association of Ontario, etc)
The Experiences of the First Cohort of the NP Anesthesia Certificate
L. Haslam, J. Jiang, N. Mills, M. Mowbray, P. Hubley, K. Kelly

1. Sunnybrook Health Sciences Centre, 2. Toronto General Hospital, 3. Sick Kids, 4. Mount Sinai Hospital, 5. Bloomberg Faculty of Nursing

December 08 Winter 09 Spring/Summer 09

Registration / Orientation
AA (Basic Course)
Advanced Pain Mgmt
across all settings
100 Clinical Hours
Seminars
Principles of Anesthesia Care
Advanced Nursing Practice
(300 hours)

Fall 09
Advanced Nursing Practice
(300 hours)

Pre-Op
Intra-Op
Post-Op
AA
NP on the ACT
Anesthesia Care Team
Anesthesiologist

Anticipated employment opportunities:
- Pre-operative assessment / evaluation clinics
- Immediate post operative care (PACU)
- Direct intra procedural care
- Sedation – ie, MRI, colon/ endoscopy clinics
- Critical care units
- Pain management

Education Program Plan:
The anesthesia care team (ACT) includes anesthesiologists, nurse practitioners, and anesthesiologists (AA's) work collaboratively to deliver anesthesia care services across the continuum of care.

As visualized below, the NP on the ACT has the potential to develop a relationship with the patient at any part of the continuum, from initial pre-operative evaluation through to an inclusive post-operative care.

The ‘fabulous four’, (the name we gave ourselves as trailblazers have struggled with learning from our own gain), gained knowledge and skills that enable us to work across the anesthesia continuum. We developed techniques and skills that enable us to work in a collaborative environment, under the direction of an anesthesiologist, and care for patients in the‘fabulous four’ operator setting.

The five domains of Advanced Nursing Practice are easily integrated into our new specialty area of practice:

Clinical - advanced anesthesia assessment in pre-op, optimization, interpretation of specialized tests, anticipating a wide range of patient responses in relation to medication and analgesia, in-depth knowledge of pharmacology & anesthesiology equipment.

Leadership - advocate for individuals and families undergoing anesthesia; promote best practice among health care team

Research - center evidence-based approach, identify gaps and areas of research in anesthesia

Education - translation of knowledge into clinical practice and mentorship

Consultation & Collaboration – initiation of timely and appropriate consultation, collaboration with members of the ACT team, and other health care providers.

Program evaluation is underway, the next cohort is expected to come in for 2010; entering directly into the MN-NP with a concurrent NP-A. Further entrance requirements will be based on continued course evaluations.
Appendix E

Anesthesia Assistants across Canada are Respiratory Therapists, Perianesthesia nurses and perioperative nurses who have completed a post-diploma program (of which there are approximately six in Canada), to fulfill the role description set forth by the Canadian Anesthesiologists Society (CAS). These professionals are regulated by their respective colleges. Since AAs are not a legislated group, there are no national standards, and practice competencies are determined by provincial and institutional policies and procedures. There are already education programs and regulatory mechanisms in place for Anesthesia Assistants in this province.

Canadian Society of Respiratory Therapists

The AA’s functions include, but are not limited to, the following:

**Technical Duties**

**The Anesthesia Assistant shall:**

1. Set up, test, calibrate and operate physiologic monitors such as anesthesia workstations, intubation/airway devices, fiberoptic endoscopes, physiologic monitors and infusion devices.
   - To ensure safety of equipment, perform equipment checks as indicated and maintain records of problems.
   - Replace and change anesthetic equipment supplies as per routine maintenance schedule.
   - Maintain stock of drug supplies and equipment at anesthesia workstations.

2. Troubleshoot anesthetic equipment.
   - Correct problems discovered and/or follow up with Biomedical engineering technicians or service representative.

3. Monitor trace gas pollution levels.

4. Maintain and stock Pediatric, Difficult Intubation, Hemodynamic and Malignant Hyperthermia carts.

5. Participate in the operating room infection control program by performing duties such as maintaining cleanliness in anesthetic equipment in accordance with quality assurance programs. Maintain measures, according to established procedures, to minimize operating room pollution.

**Clinical Duties**

**The Anesthesia Assistant shall:**

- Assist in the preparation of the patient for surgery and perform pre-operative assessments as requested by the anesthesiologist.
- Assist with or perform the insertion of devices such as nasogastric tubes, intravenous, and intra-arterial catheters.
- Assist with the insertion of Swan Ganz catheters and central venous catheters.
- Assist with regional anesthesia procedures.
- Assist with or perform airway management, including insertion of laryngeal masks, tracheal intubation, and mask ventilation.
- Assist in the positioning of the patient under the direction of the anesthesiologist.
- Adjust therapies (e.g., ventilation, temperature control devices, etc.) as directed by the anesthesiologist.
- Administer prescribed pharmacological agents to the patient under the direction of the attending anesthesiologist, observing for side effects and efficacy of treatment during anesthesia to ensure the patient responds appropriately.
- Assess the patient’s physiological status during anesthesia by performing duties such as monitoring vital signs and anesthetic gases and advising the anesthesiologist of the patient’s status.
- Assist at emergence from anesthesia by performing duties such as aspirating secretions from the trachea and pharynx, removing LMAs, and tracheal extubation of the patient. Remove monitoring equipment after surgery.
- Assist with the transfer of ventilated and/or anesthetized patients between areas of the hospital as required.
- Transfer post-operative patients to the Post Anesthesia Care Unit under the direction of the anesthesiologist.
- Monitor patient progress in the Post Anesthesia Care Unit, update anesthesia monitoring records, and report patient status to the anesthesiologist, as requested.
- Provide diagnostic data for the anesthesiologist by performing duties such as blood sampling and analysis pulmonary functioning testing, end tidal CO2 monitoring, pulse oximetry, and transcutaneous monitoring.
- Prepare fiber-optic bronchoscopes and other equipment as required, and assist the anesthesiologist during bronchoscopy with equipment set-up, preparation of and instillation of medication, and sample procurement.
- Assist the anesthesiologist with difficult intubations.
- Assist the anesthesiologist with cases in locations out of the operating room.
- Respond to cardiac arrests in OR, PACU or other locations according to hospital procedures and policies.

**Administrative Duties**

**The anesthesia assistant shall:**

1. Establish and conduct a preventive maintenance program.
2. In conjunction with the Anesthesiology and Biomedical Engineering Departments, maintain a variety of anesthetic equipment by performing duties, such as receiving and assessing equipment, testing and identifying malfunctions and determining whether repairs should be made on-site or equipment returned to vendor. Carry out minor maintenance following manufacturer’s and Canadian Standards Association guidelines and verify vendor repairs to ensure equipment is operating in a safe and effective manner.
3. Where appropriate, meet with medical equipment and pharmacological sales representatives to organize trials and evaluations of new equipment and drugs according to hospital protocol. Gather and collate feedback and participate in purchase decisions.
4. Arrange and co-ordinate servicing and repair of equipment.
5. Communicate with and act as a liaison with supply companies.
6. Remain current with available supplies and equipment and make recommendations for changes/improvements.
7. Maintain supply inventory.
8. Source out supplies and equipment.
9. Assist the department of anesthesia with capital equipment budget by conducting equipment needs assessments and research.
10. Assist in quality assurance activities.

**Education and Orientation**

**The anesthesia assistant shall:**

1. Participate in the orientation of new OR and PACU staff and students.
2. Participate in teaching of students.
3. Participate in In-service sessions for nursing staff and physicians on new equipment and supplies.
4. Attend training programs as required.

When developing the CSRT position statement, the authors drew on the expertise of a position statement from the College of Respiratory Therapists of Ontario (CRTO) as well as the position description in the position statement disseminated by the Canadian Anesthesiologists’ Society (CAS).

If you have any questions or comments regarding the role of respiratory therapists as anesthesia assistants, please contact the Canadian Society of Respiratory Therapists in Ottawa, Ontario.
Appendix F

**Scope of Nurse Anesthesia Practice**

The AANA Scope of Nurse Anesthesia Practice offers guidance for Certified Registered Nurse Anesthetists (CRNAs) and health care institutions regarding the scope of nurse anesthesia practice. The scope of practice of the CRNA addresses the responsibilities associated with anesthesia practice that are performed in collaboration with other qualified health care providers. Collaboration is a process which involves two or more parties working together, each contributing his or her respective area of expertise. CRNAs are responsible for the quality of services they render.

**Scope of Practice**

The practice of anesthesia is a recognized specialty in both nursing and medicine. Anesthesiology is the art and science of rendering a patient insensible to pain by the administration of anesthetic agents and related drugs and procedures. Anesthesia and anesthesia-related care represents those services which anesthesia professionals provide upon request, assignment, and referral by the patient’s physician or other health care provider authorized by law, most often to facilitate diagnostic, therapeutic and surgical procedures. In other instances, the referral or request for consultation or assistance may be for management of pain associated with obstetrical labor and delivery, management of acute and chronic ventilatory problems, or management of acute and chronic pain through the performance of selected diagnostic and therapeutic blocks or other forms of pain management. Education, practice and research within the specialty of nurse anesthesia promote competent anesthesia care encompassing the diversity of patient populations, age, ethnicity and gender. CRNAs practice according to their expertise, state statutes and regulations, and institutional policy.

**CRNA scope of practice includes, but is not limited to, the following:**

1. Performing and documenting a preanesthetic assessment and evaluation of the patient, including requesting consultations and diagnostic studies; selecting, obtaining, ordering, and administering preanesthetic medications and fluids; and obtaining informed consent for anesthesia.
2. Developing and implementing an anesthetic plan.
3. Initiating the anesthetic technique which may include: general, regional, local, and sedation.
4. Selecting, applying, and inserting appropriate noninvasive and invasive monitoring modalities for continuous evaluation of the patient's physical status.
5. Selecting, obtaining, and administering the anesthetics, adjuvant and accessory drugs, and fluids necessary to manage the anesthetic.
7. Facilitating emergence and recovery from anesthesia by selecting, obtaining, ordering and administering medications, fluids, and ventilatory support.
8. Discharging the patient from a postanesthesia care area and providing postanesthesia follow-up evaluation and care.
9. Implementing acute and chronic pain management modalities.
10. Responding to emergency situations by providing airway management, administration of emergency fluids and drugs, and using basic or advanced cardiac life support techniques.

Additional nurse anesthesia responsibilities which are within the expertise of the individual CRNA include:
1. Administration/management: scheduling, material and supply management, development of policies and procedures, fiscal management, performance evaluations, preventative maintenance, billing, data management, and supervision of staff, students or ancillary personnel.
2. Quality assessment: data collection, reporting mechanism, trending, compliance, committee meetings, departmental review, problem-focused studies, problem solving, interventions, documents and process oversight.
3. Education: clinical and didactic teaching, BCLS/ACLS instruction, in-service commitment, EMT training, supervision of residents, and facility continuing education.
4. Research: conducting and participating in departmental, hospital-wide, and university-sponsored research projects.
5. Committee appointments: assignment to committees, committee responsibilities, and coordination of committee activities.
6. Interdepartmental liaison: interface with other departments such as nursing, surgery, obstetrics, postanesthesia care units (PACU), outpatient surgery, admissions, administration, laboratory, pharmacy, etc.
7. Clinical/administrative oversight of other departments: respiratory therapy, PACU, operating room, surgical intensive care unit (SICU), pain clinics, etc.

The functions listed above are a summary of CRNA clinical practice and are not intended to be all-inclusive. A more specific list of CRNA functions and practice parameters is detailed in the AANA Guidelines for Core Clinical Privileges for Certified Registered Nurse Anesthetists.

CRNAs strive for professional excellence by demonstrating competence and commitment to clinical, educational, consultative, research, and administrative practice in the specialty of anesthesia. CRNAs should serve on health care facility committees and actively participate in the development of departmental policies and guidelines, performance appraisals, peer reviews, and clinical and administrative conferences. In addition to these activities, CRNAs should assume a leadership role in the evaluation of the quality of anesthesia care provided throughout the facility and the community.
The scope of practice of the CRNA is also the scope of practice of nurse anesthetists who have graduated within the past 24 months from a nurse anesthesia educational program accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA), but have not yet passed their initial certification examination. Students enrolled in nurse anesthesia educational programs accredited by the COA practice pursuant to the council’s standards and guidelines.
The “Scope of Practice” statement was first published in 1980 as one part of the *American Association of Nurse Anesthetists Guidelines for the Practice of the Certified Registered Nurse Anesthetist*. In 1983, the “Standards for Nurse Anesthesia Practice” and the “Scope of Practice” statement were included together in the *American Association of Nurse Anesthetists Guidelines for the Practice of the Certified Registered Nurse Anesthetist*. That document subsequently has had the following name changes: *Guidelines for Nurse Anesthesia Practice* (1989); *Guidelines and Standards for Nurse Anesthesia Practice* (1992); and *Scope and Standards for Nurse Anesthesia Practice* (1996). The *Scope and Standards for Nurse Anesthesia Practice* was most recently revised in January 2013. In February 2013, the AANA Board of Directors approved separating the *Scope and Standards for Nurse Anesthesia Practice* into two documents: the *Scope of Nurse Anesthesia Practice* and the *Standards for Nurse Anesthesia Practice*.


**Standards for Nurse Anesthesia Practice**

The AANA Standards for Nurse Anesthesia Practice offer guidance for Certified Registered Nurse Anesthetists (CRNAs) and health care institutions regarding nurse anesthesia practice. CRNAs are responsible for the quality of services they render.

**Standards for Nurse Anesthesia Practice**

These standards are intended to:

1. Assist the profession in evaluating the quality of care provided by its practitioners.
2. Provide a common base for practitioners to use in their development of a quality practice.
3. Assist the public in understanding what to expect from the practitioner.
4. Support and preserve the basic rights of the patient.

These standards apply to all anesthetizing locations and may be exceeded at any time at the discretion of the CRNA. Although the standards are intended to promote high-quality patient care, they cannot assure specific outcomes. The CRNA should consider the integration of new technologies into current anesthesia practice.
There may be exceptional patient-specific circumstances that require deviation from a standard. The CRNA shall document any deviations from these standards (e.g., emergency cases for which informed consent cannot be obtained, surgical interventions or procedures that invalidate application of a monitoring standard) and state the reason for the deviation on the patient’s anesthesia record.

**Standard I**
*Perform and document a thorough preanesthesia assessment and evaluation.*

**Standard II**
*Obtain and document informed consent for the planned anesthetic intervention from the patient or legal guardian, or verify that informed consent has been obtained and documented by a qualified professional.*

**Standard III**
*Formulate a patient-specific plan for anesthesia care.*

**Standard IV**
*Implement and adjust the anesthesia care plan based on the patient’s physiologic status. Continuously assess the patient’s response to the anesthetic, surgical intervention, or procedure. Intervene as required to maintain the patient in optimal physiologic condition.*

**Standard V**
*Monitor, evaluate, and document the patient’s physiologic condition as appropriate for the type of anesthesia and specific patient needs. When any physiological monitoring device is used, variable pitch and threshold alarms shall be turned on and audible. The CRNA should attend to the patient continuously until the responsibility of care has been accepted by another anesthesia professional.*

**a. Oxygenation**
Continuously monitor oxygenation by clinical observation and pulse oximetry. If indicated, continually monitor oxygenation by arterial blood gas analysis.

**b. Ventilation**
Continuously monitor ventilation. Verify intubation of the trachea or placement of other artificial airway devices by auscultation, chest excursion, and confirmation of expired carbon dioxide. Use ventilatory pressure monitors as indicated. Continuously monitor end-tidal carbon dioxide during controlled or assisted ventilation and any anesthesia or sedation technique requiring artificial airway support. During moderate or deep sedation, continuously monitor for the presence of expired carbon dioxide.

**c. Cardiovascular**
Continuously monitor cardiovascular status via electrocardiogram. Perform auscultation of heart sounds as needed. Evaluate and document blood pressure and heart rate at least every five minutes.
d. Thermoregulation
When clinically significant changes in body temperature are intended, anticipated, or suspected, monitor body temperature in order to facilitate the maintenance of normothermia.

e. Neuromuscular
When neuromuscular blocking agents are administered, monitor neuromuscular response to assess depth of blockade and degree of recovery.

f. Positioning
Monitor and assess patient positioning and protective measures, except for those aspects that are performed exclusively by one or more other providers.

Interpretation Continuous clinical observation and vigilance are the basis of safe anesthesia care. Consistent with the CRNA’s professional judgment, additional means of monitoring the patient’s status may be used depending on the needs of the patient, the anesthesia being administered, or the surgical technique or procedure being performed.

Standard VI
Document pertinent anesthesia-related information on the patient’s medical record in an accurate, complete, legible, and timely manner.

American Association of Nurse Anesthetists

Standard VII
Evaluate the patient’s status and determine when it is safe to transfer the responsibility of care. Accurately report the patient’s condition, including all essential information, and transfer the responsibility of care to another qualified health care provider in a manner that assures continuity of care and patient safety.

Standard VIII
Adhere to appropriate safety precautions as established within the practice setting to minimize the risks of fire, explosion, electrical shock and equipment malfunction. Based on the patient, surgical intervention or procedure, ensure that the equipment reasonably expected to be necessary for the administration of anesthesia has been checked for proper functionality and document compliance. When the patient is ventilated by an automatic mechanical ventilator, monitor the integrity of the breathing system with a device capable of detecting a disconnection by emitting an audible alarm. When the breathing system of an anesthesia machine is being used to deliver oxygen, the CRNA should monitor inspired oxygen concentration continuously with an oxygen analyzer with a low concentration audible alarm turned on and in use.

Standard IX
Verify that infection control policies and procedures for personnel and equipment exist within the practice setting. Adhere to infection control policies and procedures as established within the practice setting to minimize the risk of infection to the patient, the CRNA, and other health care providers.
**Standard X**
*Participate in the ongoing review and evaluation of anesthesia care to assess quality and appropriateness.*

**Standard XI**
*Respect and maintain the basic rights of patients.*

In 1974, the *Standards for Nurse Anesthesia Practice* were adopted. In 1983, the “Standards for Nurse Anesthesia Practice” and the “Scope of Practice” statement were included together in the *American Association of Nurse Anesthetists Guidelines for the Practice of the Certified Registered Nurse Anesthetist*. That document subsequently has had the following name changes: *Guidelines for Nurse Anesthesia Practice* (1989); *Guidelines and Standards for Nurse Anesthesia Practice* (1992); and *Scope and Standards for Nurse Anesthesia Practice* (1996). The *Scope and Standards for Nurse Anesthesia Practice* was most recently revised in January 2013. In February 2013, the AANA Board of Directors approved separating the *Scope and Standards for Nurse Anesthesia Practice* into two documents: the *Scope of Nurse Anesthesia Practice* and the *Standards for Nurse Anesthesia Practice*.
