

ADVANCED PRACTICE NURSING

A Pan-Canadian Framework



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Introduction

As Canada's population changes, so too does its health-care needs and expectations. Stakeholders, including policy-makers and employers, are recognizing the need to provide better health, better health care (person and family centred) and better value to meet the new reality. They are aligning the size, composition, distribution, *competencies*,¹ performance and accountabilities of their health-care workforce in response to the country's health needs. This realignment is driven in part by an increasingly diverse population, mental illness and addiction, and rising rates of chronic disease. This is happening amid the introduction of new technology and treatment models, rising health-care costs and poor health system performance — most notably, access to care (Maier, Aiken, & Busse, 2017).

Health systems, meanwhile, are slowly transforming from a historically biomedical model focused on diagnosis and treatment of illness and injury to more holistic, integrated models grounded in primary health care. These integrated models focus on upstream illness prevention, health promotion and chronic disease self-management.

The need for knowledgeable, collaborative, innovative practitioners to lead health-care reform to achieve health for all has never been stronger. "Reports consistently call for strong leadership as an absolute necessity if meaningful transformation of our health system is to occur" (Health Council of Canada, 2013). Nurses working in advanced practice roles (*clinical nurse specialist* [CNS] and *nurse practitioner* [NP]) are fulfilling this need. They meet the complex health needs of Canadians in a wide variety of settings and contribute to the development and implementation of a sustainable, efficient and effective health system. They are well positioned to inform, influence and accelerate health-care reform.

"In Canada, the roots of advanced practice nursing can be traced to the efforts of outpost nurses who worked in isolated areas such as the Northwest Territories, Labrador and Newfoundland during the early 1890s. ... These early beginnings of advanced practice nursing have been accepted but largely unrecognized within the Canadian healthcare system. ... Since the 1960s, advanced practice nursing roles have become more formalized within Canada" (Kaasalainen et al, 2010, p.36).

1 Terms defined in the glossary are presented in italics on first appearance in the text.

Evolution of Advanced Practice Nursing

Advanced practice nursing (APN) has been in existence globally since the 1960s, when health-care systems and governments around the world began to recognize it “as an essential vehicle for innovation and healthcare reform to provide more effective and sustainable models of healthcare” (Bryant-Lukosius & Martin-Misener, 2015, p.1). Advanced practice nurses “are the solution to many global health care challenges and agendas” (Judith Shamian, as cited in Schober, 2016). Over 70 countries worldwide have or are interested in introducing APN roles (Bryant-Lukosius & Martin-Misener, 2015).

The momentum behind APN includes an identified need for health-care services, workforce planning challenges, public demand for improved access to health care, and professional development/career advancement for nursing (Schober, 2016; Hanrahan & Hartley, 2008). The need for a more flexible and cost-effective approach to the delivery of health care continues to provide opportunities for nurses to expand their roles and create new ones. As nurses move along their careers, they acquire additional competencies that become incorporated into their practice. This enables them to contribute to the health-care system in new ways.

APN focuses on the clinical domain in a wide array of practice settings. Clinical practice includes both direct *client* care and indirect activities, which can include care coordination and providing clinical expertise through consultation about the client with other health-care providers.

Two APN roles are recognized in Canada today: the CNS and NP. These two roles evolved from different roots.

CNSs first emerged in the 1970s as client care grew more complex. Their role was to provide clinical consultation, guidance and leadership to nursing staff managing complex and specialized client care to improve the quality of care and to promote evidence-informed practice. CNSs were focused on complex client care and system issues that required improvements, which resulted in measurable positive outcomes for the people they served. Cutbacks in the 1980s and 1990s led to the elimination of many of these positions, but as the policy agenda refocuses on quality and client safety, there is a need to increase the use of CNSs.

In Canada, the origin of the NP lies in the work of nurses who, decades ago, provided care that was otherwise unavailable in rural and remote areas. NPs gained formal recognition in the 1970s, when this role was recommended by policy-makers as a way of providing health care to isolated populations. Education programs were started, but a perceived oversupply of physicians, a lack of enabling legislation, and problems related to remuneration caused interest in the NP to wane. However, it was rekindled in the 1990s by health-care reform, an increased demand for access to primary health care and the need for integrated care. Formal legislation and *regulation* for NPs started in 1998 and all the provinces and territories now have it. The supply of NPs in Canada has more than tripled, from 1,393 in 2007 to 5,274 in 2017 (Canadian Institute for Health Information, 2018). NPs, who work across many settings, are well positioned to meet the ever-growing complexity and needs in Canada's health-care system.

See Appendix A (p. 49) for a timeline of the evolution of APN in Canada at a national level.

Impact and Outcome of Advanced Practice Nursing

Numerous systematic reviews have demonstrated the benefits of CNS and NP roles for improving health outcomes and quality of care and for increasing access to care and promoting the appropriate use of health services. These positive outcomes have been shown in various practice settings such as:

- ▶ Primary care (Maier et al., 2017; Martin-Misener et al., 2015a)
- ▶ Long-term care (Donald et al., 2013; Harrington, 2016)
- ▶ Cancer care (Bryant-Lukosius, Cosby et al., 2015; Stahlke, Rawson, & Pituskin, 2017)
- ▶ Models of transitional care that cut across acute, ambulatory and home care settings (Bryant-Lukosius, Carter et al., 2015; Donald et al., 2015).

The results are consistent across varied populations and from low birth weight babies to frail, older adults. A key finding is that the positive impact of CNS and NP roles may be most prominent for high-risk, high-cost, high-volume client populations requiring complex acute and chronic disease management care.

A meta-synthesis of the large number of systematic reviews and evaluations of APN roles show that their outcomes are as good, or better than, those providing similar levels of care, usually physicians (Maier et al., 2017). The evidence also suggests that APN roles lead to reduced hospital admissions and re-admissions as well as higher client satisfaction.

The paucity of true economic evaluations of CNS and NP roles means that there is limited evidence to determine their cost-effectiveness (Marshall et al., 2015). However, systematic reviews of studies examining health service use indicate that well-designed APN roles can result in reduced health-care costs.

“Alignment of APN roles with patient and population health needs is essential for realising healthcare improvements and efficiencies” (Bryant-Lukosius & Martin-Misener, 2015., p. 3).

Evaluations of CNS and NP roles focus on their effectiveness in achieving client, provider and health system outcomes. The Institute for Healthcare Improvement (IHI) Triple Aim Framework offers a way to illustrate the impact

of APN — achieving better care for individuals, better health for populations and lower health-care costs. See Appendix B (p.51) for a sample of the research regarding the impact of APN presented according to the Quadruple Aim Framework, which adds a fourth dimension of better engagement (improving the experience of providing care) to the original IHI Triple Aim Framework.

Purpose of this Framework

Despite the global expansion of APN, the understanding of what it constitutes and how to implement it varies from one country to another — and even within countries. While there has been tremendous progress, the full potential of APN roles in Canada has yet to be realized. For example, as Naylor et al. (2015) frequently mention in their federal government advisory panel report, *Unleashing Innovation: Excellent Healthcare for Canada*, APN roles are underused, despite clear evidence of their benefits to the health system and Canadians.

The objective of this pan-Canadian framework is to promote a common understanding among nurses, other health-care providers, employers, policy-makers and the public of APN in Canada and its contribution to health systems and the health of Canadians. This framework therefore has the potential to enable successful APN role implementation, integration and sustainability by:

- ▶ Increasing consistency in role definition and implementation
- ▶ Informing the development of educational curricula
- ▶ Identifying concepts for research
- ▶ Shaping government and organizational decisions and policy

A common framework supports a coordinated pan-Canadian approach for APN implementation and integration while permitting flexibility among provinces and territories to allow new roles to develop. This is necessary to ensure that the public has access to consistent, high-quality APN services across the country. It is also critical to facilitate the mobility of APN to enable effective pan-Canadian health human resources planning.

This APN framework contains the following key elements:

- ▶ Definition and characteristics
- ▶ Education
- ▶ Roles
- ▶ Regulation
- ▶ Strategies for successful APN role implementation, integration and sustainability
- ▶ Evaluation

Definition and Characteristics

DEFINITION

Advanced practice nursing (APN) is an umbrella term for registered nurses (RNs) and nurse practitioners (NPs) who integrate graduate nursing educational preparation with in-depth, specialized clinical nursing knowledge and expertise in complex decision-making to meet the health needs of individuals, families, groups, communities and populations. Advanced practice nurses (CNSs and NPs):

- ▶ Analyze and synthesize knowledge
- ▶ Critique, interpret and apply theory
- ▶ Participate in and lead research from nursing and other disciplines
- ▶ Use their advanced clinical competencies
- ▶ Develop and accelerate nursing knowledge and the profession as a whole

In addition, NPs have regulatory authority to *autonomously* diagnose, prescribe and order and interpret tests for their clients.

CHARACTERISTICS

Advanced practice nurses build on their clinical expertise in a specialty area by integrating research, education, leadership, consultation and collaboration and a health systems approach. These nurses consistently demonstrate the following characteristics:

- ▶ Provision of effective and efficient health care, delivered with a high degree of autonomy, to an identified population
- ▶ Lead inter/intra-professional and intersectoral teams
- ▶ Possession of extensive depth and breadth of knowledge that draws on a wide range of strategies to meet the needs of clients and to improve accessibility, safety and quality of health care

- ▶ Ability to initiate or participate in planning, coordinating, implementing and evaluating programs to meet client needs, promote the health of communities and support nursing practice
- ▶ Ability to explain and apply the theoretical, empirical, ethical and experiential foundations of nursing practice
- ▶ Demonstration of advanced expertise in assessment, judgment and decision-making skills
- ▶ Deliberate, purposeful and integrated use of in-depth nursing knowledge, research and clinical expertise, as well as integration of knowledge from other disciplines
- ▶ Expertise in research methods and ability to critically examine research for quality, relevance to practice and effect on health care and system outcomes
- ▶ Use of knowledge-mobilization techniques to promote and implement research-informed practice
- ▶ Provision of consultation services to other health-care professionals and stakeholders whose services influence the determinants of health
- ▶ Knowledge and application of improvement science to identify and lead quality improvement initiatives
- ▶ Possession of influential leadership and change management skills to initiate change to improve client, organization and system outcomes
- ▶ Ability to critically analyze and influence health policy and other policies that are related to the determinants of health
- ▶ Provision of leadership in identifying and resolving ethical problems

Education

EDUCATIONAL PREPARATION

The minimum educational preparation for an advanced practice nurse is a master's degree in nursing. A nurse with this type of degree has a thorough grounding in the theoretical foundation of nursing. They can promote nursing research, generate new knowledge and use their academic preparation, synthesis and knowledge-mobilization skills to interpret and incorporate new knowledge into clinical practice.

Although a graduate degree is essential for APN, nurses who have completed one or more graduate degrees cannot assume that their practice is at an advanced level based on these educational *credentials* alone. **It is the combination of graduate nursing education and clinical expertise in at least one specialty area (e.g., seniors care, wound care, public health, primary care) that allows nurses to develop the competencies required for APN.**

In many jurisdictions in Canada, APN education has evolved over time, from a post registration/licensure certificate, to a graduate certificate, to a graduate nursing degree. **RNs and NPs who acquired these credentials prior to the requirement of graduate nursing education continue to practise and are recognized as advanced practice nurses as they have demonstrated the necessary competencies.**

Regulatory bodies across Canada have established measurable standards against which NP education programs are assessed and evaluated for the purpose of determining program approval status. **Similar designation and approval of CNS master's programs would support greater role clarity, regulation and integration.**

The Canadian Association of Schools of Nursing (CASN) has resources to support APN education. To begin, it has established a *National Nursing Education Framework* (CASN, 2015) that pinpoints core expectations for all master's programs in nursing (regardless of stream or specialization) and clarifies how a master's degree adds value and builds on baccalaureate education in nursing. CASN's framework provides nursing programs with national guidelines that integrate professional and academic expectations for institutions of higher learning. The framework offers direction in developing, reviewing, evaluating, or modifying nursing programs and curricula.

In addition, CASN developed the *Nurse Practitioner Education in Canada: National Framework of Guiding Principles and Essential Components* (CASN, 2012).

All APN education programs benefit from accreditation, which “promotes excellence and is recognized worldwide as an important, objective method to assess professional education programs. Accreditation identifies strengths and opportunities for improvement that can guide decision making. The process provides administrators and faculty with information regarding areas that require development, modification and/or resources” (CASN, n.d.).

In the U.S., the clinical doctorate of nursing practice (DNP) has been established and the number of programs has been expanding rapidly. The American Association of Colleges of Nursing (AACN) has endorsed it as the entry-to-practice degree for advanced practice RNs, but U.S. regulatory bodies have not yet deemed it an educational entry-to-practice requirement. Some Canadian advanced practice nurses are pursuing this credential in the U.S. While this level of education is beneficial to clients, health systems and the advancement of the profession, it is not currently required for APN in Canada.

CONTINUING PROFESSIONAL DEVELOPMENT

While advanced practice nurses bring clinical expertise to their positions, they begin as novices in their advanced roles. As they gain experience and pursue continuing professional development opportunities, they become more proficient in their APN role. Like all nurses, advanced practice nurses are committed to lifelong learning. They regularly reflect on their practice and individual competence, identify learning needs and seek opportunities to support their professional growth.

Ongoing learning and removal of barriers to continuing education for advanced practice nurses “is essential given the importance of basing care on current best practice and developing and maintaining specialist knowledge” (Dicenso & Bryant-Lukosius, 2010, p.31). A variety of modalities of learning — including face-to-face, distance, virtual learning and simulation, etc. — are important because of travel, financial and distance constraints. Leadership at all levels (individual nurse, managerial, organizational and system) are needed to support the continuing professional development of advanced practice nurses. “Without the support, protected time, and resources to participate in education, research and leadership activities, [advanced practice nurses] risk job dissatisfaction and lose the opportunity to develop and/or disseminate new nursing knowledge” (Dicenso & Bryant-Lukosius, 2010, p.25). Improving opportunities for professional development is key to recruitment and retention (Little & Reichert, 2018). Furthermore, continuing professional development and associated supports are needed to enhance all the APN competency domains (direct comprehensive care, optimizing the health system, education,

research, leadership, consultation and collaboration) to optimize competence and confidence.

There are numerous opportunities for advance practice nurses to expand their learning, improve their practice, and ultimately improve the health of Canadians and strengthen the health-care system. This advancement is necessary to keep pace with changing health-care demands and client needs (e.g., palliative and end-of-life care, aging, changes in *scope of practice*). Continuing professional development opportunities include but are not limited to:

- ▶ Pursuing further formal education (e.g., doctoral degree)
- ▶ Pursuing CNA specialty certification
- ▶ Attending workshops, webinars, conferences or retreats on topics relevant to their practice
- ▶ Keeping abreast of recent evidence

Examples and tools related to continuing professional development:

- ▶ **CNA Certification Program:** This nationally recognized program is a formal means for advanced practice nurses to demonstrate their clinical expertise. CNA specialty certification has been shown to improve client outcomes (e.g., lower rates of central line-related infections in surgical ICUs are correlated to higher rates of certified nurses [Boyle, Cramer, Potter, Gatua, & Stobinski, 2014]). Research also shows that units having two or more geriatric-certified nurses have significantly lower rates of falls (Lange et al., 2009). The *Consensus Model for APRN [advanced practice registered nurse] Regulation* in the U.S. strongly recommends nurses achieve certification (Alleman & Houle, 2013).
- ▶ **Mentoring:** This tool supports professional development and enhances retention, succession planning, job satisfaction and role enhancement. Mentorship programs, including e-mentorship, have shown to be effective in furthering research competencies and capacity in advance practice nurses (Bryant-Lukosius, 2015; Harbman et al., 2016).
- ▶ **Coaching:** “Coaching is partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential” (International Coach Federation, n.d.). In a coaching model, the coachee (client) is considered capable of finding their own answers to whatever challenges they face. The job of the coach is to ask powerful questions and listen in order to empower the client to elicit the skills and creativity they already possess, rather than instruct or advise them. Important components of a coaching model include relationship building, problem definition, problem solving and transformation.

Roles

Advanced practice nurses deliver health-care services at the individual, family, community and population health levels in a wide array of practice settings. APN focuses on clinical practice, whether through a direct relationship with clients and/or through indirect activities such as care coordination and providing clinical expertise through consultation about the client's health situation with other health-care providers. Although the primary focus of APN is direct comprehensive care, the roles also incorporate optimizing the health system, education, research and leadership.

Nurse educators, researchers and administrators with *graduate education* may demonstrate *advanced nursing practice* in their positions. However, they would not be considered an advanced practice nurse because they do not engage in direct clinical, comprehensive care.

While the two APN roles (CNS and NP) share much in common, there is one key difference. NPs possess the legislative authority, knowledge and skills to autonomously diagnose, order and interpret diagnostic tests, prescribe treatment (including drugs) and perform specific procedures (within their legislated scope of practice). CNSs do not have this additional authority. However, CNSs' expert specialty knowledge, skills and abilities enable them to autonomously provide consultation on highly complex clients with primary care providers that impacts diagnosis and prescribed treatments (including medications) and to assist in the performance of specific treatments within their legislated scope of practice.

NPs improve access to health care, reduce wait times and alleviate pressures on the health-care system. They do this by providing clients with early diagnosis and management of acute and chronic conditions, performing preventive and curative interventions, and by offering wellness strategies and continuity of care. They also play a key role in community/organizational development, quality improvement, interprofessional teamwork (Hurlock-Chorostecki & McCallum, 2016), capacity building, and health policy development (CNA, 2016b). NPs often care for vulnerable populations (asylum seekers, new immigrants, Indigenous Peoples, people with HIV, people with opioid addictions and mental health issues, those who are low socioeconomic status and seniors, etc.) and others who are not covered by health-care plans or government funding. Like CNSs, NPs care for complex clients with multiple co-morbidities.

“CNSs have been introduced to provide highly complex and specialised care, develop nursing practice and support nurses at the point-of-care, and lead quality improvement and evidence-based practice initiatives in response to research advances in treatment and technology” (Bryant-Lukosius & Martin-Misener, 2015, p. 2). Three substantive areas of CNS practice include management and care of complex and vulnerable populations, education and support of interdisciplinary staff, and facilitation of change and innovation within the health-care system (Lewandowski & Adamle, 2009). Their clinical role within the health-care organization enables them to identify care and resource gaps to improve client flow and outcomes and enhance health system policies.

Client, organization and system needs help to shape and determine the role of individual CNSs and NPs. There has been an expansion in the use of these roles specific to various client populations, health conditions and settings. While such innovation and flexibility serve clients, organizations and the health system well, the result is a high degree of variability in how these roles are operationalized. It is therefore critical to involve CNSs and NPs in role development and implementation.

Various methodological tools exist to assist with the implementation process, including:

- ▶ **PEPPA Framework** (see Appendix C, p. 54): PEPPA stands for participatory, evidence-based, patient-centred process for advanced practice nurses and it looks at role development, implementation and evaluation. The framework sets out nine steps for determining whether a new advanced practice nurse role is needed and whether it will be effective. These steps include defining the client population, defining new models of care and the place of the advanced practice nurse within them, implementing the new models of care, and long-term monitoring (Bryant-Lukosius & DiCenso, 2004). “[T]he PEPPA framework is recognised as a best practice for healthcare redesign. It has been implemented in at least 16 countries, translated into several languages, and demonstrated wide applicability to diverse provider roles, models of care, practice settings and patient populations” (Bryant-Lukosius & Martin-Misener, 2015, p.4).
- ▶ **Implementation and Evaluation Toolkit for Nurse Practitioners in Canada:** Developed as part of the Canadian Nurse Practitioner Initiative, this NP toolkit “is designed to act as a practical guide to users for assessing the need and readiness for NP implementation, as well as to identify key steps and factors that will support successful NP implementation and ongoing monitoring by a structured and forward-looking approach to evaluation” (CNA, 2006a, p. 1).

It is anticipated that APN roles will continue to develop to meet the existing and emerging health-care needs of Canadians.

Regulation

Provincial and territorial governments, through legislation and regulation, on behalf of the public, have granted the nursing profession the privilege and responsibility to self-regulate. Nursing regulatory bodies have a mandate to regulate nurses to ensure public protection. They achieve this mandate by ensuring that nurses, including advanced practice nurses, are safe, competent and ethical practitioners. This is accomplished through a variety of regulatory activities including:

- ▶ Establishing requirements for entry to practice
- ▶ Articulating, promoting and enforcing standards of practice and conduct
- ▶ Approving nursing education programs
- ▶ Administering continuing competence and quality assurance programs

Advanced practice nurses must meet initial and ongoing registration requirements set by their nursing regulatory body.

All provinces and territories in Canada have legislation and regulations for NPs. CNSs are currently regulated as RNs.

Successful integration of the NP role requires a harmonized pan-Canadian regulatory framework that reflects APN competencies and is premised on excellence in nursing regulation.

Title Protection

Several studies on APN have found that countries in which titles and scope of practice are regulated generally achieve greater role clarity and scope of practice (Maier et al., 2017; Donald, F. et al, 2010). All jurisdictions have nurse practitioner legislation and regulations in place, including title protection for “nurse practitioner.” However, additional designations, such as “RN: extended practice,” are still in use in certain jurisdictions; this may cause confusion for other providers, employers and, importantly, the public.

CNS TITLE

Currently, Quebec has title protection and regulations for “clinical nurse specialist” (prevention and control of infections) (Ordre des infirmières et infirmiers du Québec, 2018). Alberta, meanwhile, has title protection for “specialist” with accompanying regulation and standards that specify when an RN can use it (College and Association of Registered Nurses of Alberta [CARNA], 2006b). Both of these specialist titles function within the scope of an RN.

Citing multiple studies, Bryant-Lukosius et al. (2018) found that lack of regulation and title protection poses barriers to APN worldwide, especially for the CNS. Canada fits in with this pattern, the authors say, with its mix of master’s- and non-master’s-educated advanced practice nurses working as specialists without clear avenues for career advancement, education, credentialing, or methods for knowing which nurses are practising safely at an advanced level. “As a result, the public, health care providers, and administrators are uncertain about what CNS roles have to offer and may have unclear expectations about CNS scope of practice.” The authors claim that recruitment and retention of CNSs is at risk despite the evidence supporting the positive impact of the role.

Standardized title and title protection for NPs and standardized policies and mechanisms for recognizing CNSs across Canada are important to their successful integration and effectiveness. Credentialing mechanisms are required to strengthen role recognition and to ensure that those in the role have the necessary education and experience. As new roles in APN emerge, it is prudent to seek defined legislation and/or regulation that affirms to the public that the advanced practice nurse has the verified competencies to carry the title.

Scope of Practice

Scope of practice refers to the activities RNs and NPs are authorized, educated and competent to perform. There are four levels:

- ▶ Legislative/regulatory (legal): defined in nursing and/or health legislation/regulations, controlled or restricted acts, and other statutes
- ▶ Professional: defined by nursing regulatory bodies through standards, guidelines, policy positions and ethical standards
- ▶ Employment: defined by individual employer/organizational policies
- ▶ Individual: defined by an individual's competence, shaped by education, experience and client needs

In some cases, the scope of practice of advanced practice nurses includes additional responsibilities, such as prescriptive authority for NPs, that require additional regulatory authority.

Canadians and the Canadian health-care system are best served when the legal and professional scope of practice of advanced practice nurses follows these principles:

- ▶ Broad enough to support flexibility and be responsive to the changing and varied population health needs and evolving health-care systems
- ▶ Harmonized across Canada to:
 - Promote a common understanding of the role with the public, employer and other health-care providers
 - Meet terms of the *Canadian Free Trade Agreement* to support advanced practice nurse mobility and pan-Canadian health workforce planning
- ▶ Enabling advanced practice nurses to fully work to their competencies
- ▶ Free of restrictions that limit the autonomous aspects or prevent the optimization of the APN role to meet population health and system needs
- ▶ Providing support for interprofessional collaboration without duplication of services by multiple health-care providers
- ▶ Embracing a relational regulatory approach including right touch regulation in the public interest and *just culture* (College of Registered Nurses of Nova Scotia [CRNNS], 2018; College of Registered Nurses of British Columbia, 2018; CARNA, 2018).

There has been significant harmonization and expansion of the NP legal scope of practice across jurisdictions. For example, all jurisdictions have authorized NPs to independently:

- ▶ Perform comprehensive health assessments
- ▶ Make and communicate a medical diagnosis (“diagnostic impression” in Quebec)
- ▶ Order laboratory tests
- ▶ Order and interpret diagnostic imaging tests (with some exceptions for CT scans and MRIs)
- ▶ Prescribe controlled drugs and substances (with limits in Yukon and Quebec)
- ▶ Independently refer to a specialist physician (restricted to primary care NPs in Quebec)
- ▶ Prescribe massage therapy, acupuncture and physiotherapy (except Quebec)
- ▶ Prescribe orthotics, mobility aids and compression stockings
- ▶ Order home oxygen and insulin syringes/blood glucose monitors (except Quebec)
- ▶ Order incontinence/ostomy supplies (Spence, Agnew, & Fahey-Walsh, 2015)

To address health system challenges, several jurisdictions have optimized the NP role by further expanding its legal scope of practice. For example, in Ontario, the *Public Hospitals Act* allows NPs who are employees or who have hospital privileges to admit, treat and discharge clients (College of Nurses of Ontario, 2017).

In 2017, the legal scope of practice of NPs was optimized through changes to federal legislation/regulation and policy that granted them the authority to:

- ▶ Participate in medical assistance in dying (see CNA’s *National Nursing Framework on Medical Assistance in Dying*, 2017)
- ▶ Order controlled drugs and substances, in compliance with provincial and territorial regulations
- ▶ Certify people for the medical expense tax credit, the child care expense deduction, the student disability tax credit and the disability savings plan

- ▶ Certify a spouse or common-law partner's shorter life expectancy to permit a higher pension without survivor benefits
- ▶ Independently complete the medical reports for people to receive Canada Pension Plan (CPP) benefits
- ▶ Sign medical certificates for all three Employment Insurance (EI) caregiving benefits (the compassionate care benefit and family caregiver benefit for both adults and children), which is in addition to their previous authority to sign for sickness benefits

The scope of practice of NPs and CNSs is further defined by employers and organizations. Their policies and procedures address the context of care and can be narrower than the advanced practice nurse's legal scope of practice. The legal scope of practice cannot be expanded by employers. Employer and agency policies should align with the legal and professional scope of practice to enable NPs and CNSs to work to their optimal scope of practice to meet client and system needs in an effective manner.

Competencies

Competencies are the specific knowledge, skills, judgment and personal attributes required for a nurse to practise safely and ethically in a designated role and setting (CNA, 2005). Core competencies for advanced practice nursing (APN) are based on an appropriate depth, breadth and range of nursing knowledge, theory and research, enhanced by clinical experience. They cut across specialty lines and are exhibited by all advanced practice nurses. This framework separates competencies into six categories: direct comprehensive care, health system optimization, education, research, leadership, and consultation and collaboration. However, it is the effective and simultaneous interaction, blending and execution of knowledge, skills, judgment and personal attributes in a wide variety of practice environments that characterizes APN.

Underlying assumptions:

- ▶ APN competencies build on and are in addition to RN competencies
- ▶ APN is grounded in values, knowledge and theories of nursing practice
- ▶ APN is grounded in *client- and family-centred care*
- ▶ APN competencies are founded on the principles of primary health care
- ▶ APN competencies form the foundation for all aspects of APN and apply across diverse practice settings and client populations
- ▶ Collaborative relationships with other health-care providers and stakeholders whose services impact the key determinants of health involve both independent and shared decision-making, with all parties accountable as per their scopes of practice, educational backgrounds and competencies

DIRECT COMPREHENSIVE CARE COMPETENCIES

The cornerstone of APN is clinical expertise in a *specialized area of nursing*.

Through a holistic and integrated approach, the advanced practice nurse provides comprehensive client- and family-centred care in collaboration with other members of the health-care team and stakeholders.

An advanced practice nurse integrates extensive clinical experience with theory, research and in-depth nursing and related knowledge to:

- ▶ Develop multiple advanced assessment and intervention strategies within a client-centred framework for individual clients, communities and populations
- ▶ Use qualitative and quantitative data from multiple sources, often in ambiguous and complex situations, when making clinical decisions and initiating and managing change
- ▶ Analyze the complex interaction of sociological, psychological and physiological processes, key determinants of health and clients' lived experience
- ▶ Anticipate and explain the wide range of client responses to actual or potential health problems and recommend action
- ▶ Guide decision-making in complex clinical situations
- ▶ Identify and assess trends or patterns that have health implications for clients
- ▶ Disseminate knowledge, using appropriate delivery methods (e.g., pamphlets, visual aids, presentations and publications)
- ▶ Recognize the need for and plan outcome measurements (e.g., obtaining client feedback, conducting pre- and post-surveys, monitoring length of stay, readmission rates, reduction of secondary complications, and knowledge of staff providing care)
- ▶ Manage a wide range of client responses to actual and potential health problems (i.e., illness prevention and health promotion)
- ▶ Minimize variances in care and prevent adverse outcomes

OPTIMIZING HEALTH SYSTEM COMPETENCIES

Advanced practice nurses contribute to the effective functioning of health systems through advocacy, promoting innovative client care and facilitating equitable, client-centred health care. They are able to:

- ▶ Engage clients and other team members in resolving issues at the health system level
- ▶ Generate and incorporate new nursing knowledge to develop standards of care, practice guidelines, care protocols, programs and policies

- ▶ Advocate for clients in relation to care, the health system and policy decisions that broadly affect health (e.g., determinants of health) and quality of life
- ▶ Understand and integrate the principles of resource allocation and cost-effectiveness in organizational and health system-level decision-making
- ▶ Contribute to system-level change through policy and guideline development and effective use of resources
- ▶ Participate in strategic planning for their health-care service, department or facility
- ▶ Contribute to, consult or collaborate with other health-care personnel on recruitment and retention activities
- ▶ Implement improvements in health care, including delivery structures and processes
- ▶ Understand legislative and socio-political issues that influence health policy and use this knowledge to build strategies to improve health, health-care access and healthy public policy
- ▶ Identify gaps in the health system and develop strategies to facilitate and manage change
- ▶ Advocate for changes in health policy by participating on regional, provincial/territorial, and federal committees that influence decision-making

EDUCATIONAL COMPETENCIES

Advanced practice nurses are committed to professional growth and learning for all health-care providers, as well as students, and for client and family learning related to health and wellness. They are able to:

- ▶ Plan, initiate, coordinate and conduct client, community or health-care team educational programs based on needs, priorities and organizational resources
- ▶ Contribute to nursing and the health-care system by disseminating new knowledge through formal and informal channels, including presentation and publication at the municipal, regional, national and international levels
- ▶ Identify the learning needs of nurses and other members of the health-care team and find or develop programs and resources to meet those needs

- ▶ Act as a *mentor*, preceptor, coach or role model for nursing colleagues, other members of the health-care team and students
- ▶ Create opportunities to learn with, from and about other health-care providers to optimize client care
- ▶ Contribute to the knowledge, clinical skills and client care abilities of team members and other health-care providers (e.g., by responding to clinical questions and sharing evidence)
- ▶ Contribute to, and advocate for, an organizational culture that supports professional growth, continuous learning and collaborative practice
- ▶ Build capacity and contribute to succession planning by mentoring RNs and registered psychiatric nurses to pursue graduate studies with a focus on acquiring APN competencies
- ▶ Participate in collaborative projects with academic institutions and maintain cross-appointments

RESEARCH COMPETENCIES

Advanced practice nurses are committed to generating, synthesizing, critiquing and applying research evidence. They are able to:

- ▶ Identify and implement research-based innovations for improving client care, organizations or systems
- ▶ Identify, appraise and apply research, practice guidelines and current best practice
- ▶ Identify, conduct and support research — as either primary investigator or collaborator with other members of the health-care team or community — that enhances or benefits nursing practice, client outcomes and health-care delivery
- ▶ Evaluate current practice at individual and system levels in light of research findings
- ▶ Collect data on, and evaluate the outcomes of, APN on client outcomes, the nursing profession and the health-care system or health-care delivery
- ▶ Formally appraise research by participating in scoping or systematic reviews of literature for the development of best practice or clinical practice guidelines
- ▶ Facilitate evidence-informed practice by acting as knowledge brokers for clinical nurses, other health-care providers and other stakeholders whose services impact the key determinants of health

LEADERSHIP COMPETENCIES

Advanced practice nurses are leaders in the organizations and communities where they work. They are agents of change, consistently seeking effective new ways to practise, improve care and promote APN. They are able to:

- ▶ Demonstrate self-awareness, participate in professional development and exhibit character and behaviour that is aligned with ethical values
- ▶ Evaluate programs in the organization and the community and develop innovative approaches to complex issues
- ▶ Apply theories and principles of project and change management
- ▶ Develop and clearly articulate a vision for nursing practice, influence and contribute to the organization's and the health-care system's vision, and implement approaches to realize that vision
- ▶ Identify problems and initiate change to address challenges at the clinical, organizational or system level
- ▶ Advise clients, colleagues, the community, health-care institutions, policy-makers and other stakeholders on issues related to nursing, health and health care
- ▶ Advocate for enhanced access to health care by promoting APN to nurses and other health professionals, the public, legislators and policy-makers
- ▶ Promote nursing and APN roles through involvement in academic pursuits, professional associations and special-interest groups

CONSULTATION AND COLLABORATION COMPETENCIES

Effective collaboration and communication with clients, others health-care team members and stakeholders whose services impact the determinants of health represent important aspects of all nursing practice. Advanced practice nurses are expected to consult and collaborate with colleagues across sectors and at the organizational, provincial, national and international levels. This is premised on the Canadian Interprofessional Health Collaborative's *A National Interprofessional Competency Framework* (2010).

An advanced practice nurse is able to:

- ▶ Initiate timely and appropriate consultation, referrals and collaboration with other health-care providers

- ▶ Provide recommendations or relevant treatment in response to consultation requests or incoming referrals
- ▶ Engage clients and other team members in resolving issues at the individual and organizational levels
- ▶ Consult and collaborate with members of the health-care team and stakeholders whose services impact the key determinants of health to develop quality-improvement and risk-management strategies
- ▶ Work with others to gather and synthesize qualitative and quantitative information on the key determinants of health from a variety of sources
- ▶ Practise collaboratively and build effective coalitions and partnerships
- ▶ Apply theories related to group dynamics, roles and organizations
- ▶ Use theory to demonstrate knowledge and skill in communication, negotiation, conflict prevention, management and resolution, coalition building, and change management
- ▶ Coordinate interprofessional, intra-professional and intersectoral teams
- ▶ Articulate the contribution of APN within the interprofessional health-care team and among intersectoral stakeholders

UNIQUE COMPETENCIES

The APN competencies apply to both CNSs and NPs. However, specific competencies have also been developed for each role to provide further clarity.

CNS:

With support from subject matter experts, CNA developed *Pan-Canadian Core Competencies for the Clinical Nurse Specialist* (CNA, 2014b). These core competencies expand upon those required of an RN and reflect specific requirements expected of a CNS. Further, they are consistent with and build upon the APN competencies contained in this framework.

NP:

At the request of RN regulatory bodies in Canada, CNA updated the core competencies for NPs, resulting in the *Canadian Nurse Practitioner Core Competency Framework* (CNA, 2014a). In 2016, the Canadian Council of Registered Nurse Regulators produced new *Entry-Level Competencies for NPs in Canada* (2016) as a result of the *Practice Analysis Study of Nurse Practitioners* (2015). The study showed that NP practice is consistent across Canada, with NPs using the same competencies in all Canadian jurisdictions and across three streams of practice (family/all ages, adult and pediatrics) included in the analysis. The *Practice Analysis* also indicated that the difference in NP practice lies in client population needs and context of practice, including

age, developmental stage, health condition and complexity of clients. These competencies have been adopted by nursing regulatory bodies across Canada, except in Quebec (Professional Examination Service, 2015).

CONTINUING COMPETENCE

All advanced practice nurses, as part of their ongoing registration requirements, are required to demonstrate their commitment to continuing competence and continuing quality improvement, consistent with APN and their scope of practice. This is achieved through quality assurance and continuing competence programs defined and administered by nursing regulatory bodies. Advanced practice nurses demonstrate to the public they are maintaining their competence to practise by a combination of elements including, but not limited to:

- ▶ Meeting practice hour requirements
- ▶ Engaging in practice reflection
- ▶ Participating in required continuing education and professional development
- ▶ Seeking and receiving peer feedback
- ▶ Setting and achieving professional development and learning goals

PROFESSIONAL LIABILITY PROTECTION

According to the Canadian Nurses Protective Society (CNPS) and the Canadian Medical Protective Association (CMPA), “[n]ew and evolving models for healthcare delivery have increased the opportunity for collaborative practice between physicians, nurse practitioners (NPs) and other healthcare providers. Collaborative practice inevitably reinforces the need for healthcare professionals to ensure they individually have adequate personal professional liability protection and that the other healthcare professionals with whom they work collaboratively are also adequately protected so that neither is held financially responsible for the acts or omissions of another” (CMPA & CNPS, 2017).

As such, it is important for all advanced practice nurses to have adequate professional liability protection and/or insurance, with a coverage amount commensurate with their role, scope of practice and level of risk. Advanced practice nurses should also confirm the continuing appropriate and adequate professional liability protection and/or insurance coverage of the other members of the collaborative health-care team.

Strategies for Successful Implementation, Integration and Sustainability

APN roles must be supported at many levels if they are to operate effectively and provide a full range of benefits to clients, other members of the health team, organizations and communities. This broad support includes effective nursing leadership and supervision by a nurse who understands the APN role.

A recent Organisation for Economic Co-operation and Development working paper notes that “barriers to implementation of advanced practice nursing are fairly similar across countries. These include the opposition from certain stakeholders (notably the medical workforce), regulatory barriers (including outdated and overly restrictive scope-of-practice laws), financing and reimbursement schemes (if not appropriately recognising these new roles), or slow uptake at the organisational level (due to the absence of strong leadership and poor change management strategies)” (Maier et al., 2017, p. 5).

Effective APN role integration requires two main evidence-informed factors.

The first factor deals with enabling the development of APN roles at the federal/provincial/territorial levels:

- ▶ Alignment of APN roles with health-care quality improvement goals
- ▶ Regular reviews of scope-of-practice laws and/or regulations across Canada, followed by their harmonization
- ▶ Continued alignment of federal/provincial/territorial legislation to enable advanced practice nurses to work to the full extent of their education, knowledge and skills
- ▶ Population-based health human resources planning that takes a pan-Canadian, interprofessional approach
- ▶ Leadership by CNA, other nursing organizations and governments to encourage creation of positions for nurses in this type of practice
- ▶ Leadership by CNA and other nursing organizations to identify opportunities for the introduction of future advanced practice nurse roles that align with current and emerging population health and system needs

- ▶ Communication and educational tools to inform the public, policy-makers, administrators and other professions about the roles and contributions of APN
- ▶ Funding for nurse-led research about APN
- ▶ Standardized methodology for economic analyses of APN
- ▶ Flexible pathways to graduate nursing education
- ▶ Specially designed graduate curricula based on the characteristics and competencies of APN

The second evidence-informed factor for effective APN role integration is focused on practice settings:

- ▶ Leadership and support by chief nursing officers and nursing executives/managers
- ▶ Supervision of advanced practice nurses by a senior level nurse administrator who understands the role and its impact (not applicable for those self-employed)
- ▶ Leadership by advanced practice nurses in identifying opportunities and advocating for the introduction of APN roles that align with organizational/program objectives and population health needs
- ▶ Enhanced role clarity during role development and implementation stages
- ▶ Enabling funding mechanisms that support dedicated implementation of APN roles and promote interprofessional collaboration
- ▶ Appropriate levels of remuneration, harmonized across the country
- ▶ Ongoing support and commitment by management at an organizational level, including orientation programs, mentoring and peer support
- ▶ Organizational and administrative support and resources to implement, develop and sustain various aspects of APN
- ▶ Funding for knowledge mobilization and implementation science to move APN research into action
- ▶ Implementation and evaluation of APN roles using the PEPPA Plus (see figure 1 p. 42) and other tools
- ▶ Human resources policies that encourage nurses to pursue graduate education
- ▶ Support for professional development and lifelong learning

- ▶ Dedicated time allotted for advanced practice nurse positions to fulfil all six categories of competencies (direct, comprehensive care; education; optimizing health systems; research, leadership; and consultation and collaboration)
- ▶ Interprofessional education and organizations that foster teamwork
- ▶ Resources to put in place the positions, technology, administrative infrastructure and culture for advanced practice nurses to work most effectively
- ▶ Policy processes that promote APN and are shaped by the expertise of nurses working in the role

A number of APN resources exist in Canada, including:

- ▶ Opportunities for continuing education and professional development (e.g., webinars, conferences, courses, workshops)
- ▶ Practice information and guidance from:
 - Nursing regulatory bodies
 - Provincial/territorial professional nursing associations
 - The Canadian Nurses Association
 - National/provincial/territorial APN associations (e.g., Nurse Practitioner Association of Canada, Clinical Nurse Specialist Association of Canada)
 - Schools of nursing and the Canadian Association of Schools of Nursing
 - Provincial/territorial nursing unions and the Canadian Federation of Nurses Unions
 - Organizations offering professional liability protection (e.g., CNPS) and employers, governments, etc.
 - Networking and mentoring opportunities through the various nursing specialty groups of CNA's Canadian Network of Nursing Specialties
- ▶ Clinical guidance in the form of clinical practice guidelines, best practice guidelines, etc.
- ▶ Research activities and studies available at the Canadian Centre for Advanced Practice Nursing Research
- ▶ National advanced practice nurse workforce data at the Canadian Institute for Health Information

Evaluation

CNS and NP roles are introduced with the intent of addressing specific health-care challenges and to improve health outcomes (related to clients, communities or populations) and/or health-care service outcomes (e.g., access to care, quality of care, care coordination) at team, organization or system levels. This makes evaluation complex.

The goal of evaluation is to determine if the introduction of advanced practice nurses has achieved the desired outcomes based on indicators. Rigorous, validated evaluation tools are key to generating high-quality evidence to inform policy decisions. “Lack of theory-based evaluations contribute to poorly defined roles with unclear connections between activities and outcomes, and may account for studies reporting no differences in APN outcomes when compared to usual care. ... Lack of a theoretical framework also results in evaluations that fail to capture data about why APN outcomes are not achieved, and thus missed opportunities to refine roles and address barriers to achieve better outcomes” (Bryant-Lukosius et al., 2016, p. 202).

Several evaluation tools and frameworks exist to evaluate APN roles:

PEPPA Plus

- ▶ Provides enhanced resources over the original PEPPA (see Appendix C, p. 54), including more details, tools and guidance for designing and planning the evaluation of new or existing APN roles at three specific stages of development (introduction, implementation and long-term sustainability)
- ▶ Evaluates needs at different levels of the health system (e.g., country or region, organization, practice setting) and considers different perspectives (client, family, provider)

Canadian Nurse Practitioner Initiative

Implementation and Evaluation Toolkit for Nurse Practitioners in Canada

- ▶ Serves as a practical guide to assessing the need and readiness for the nurse practitioner role
- ▶ Identifies key steps and factors to support the implementation of this role and ongoing monitoring of its effectiveness through a structured, forward-looking evaluative approach.
- ▶ Based on the PEPPA framework, extensive literature review and experimental research, key stakeholder consultation and a review of best practices (CNA, 2006a).

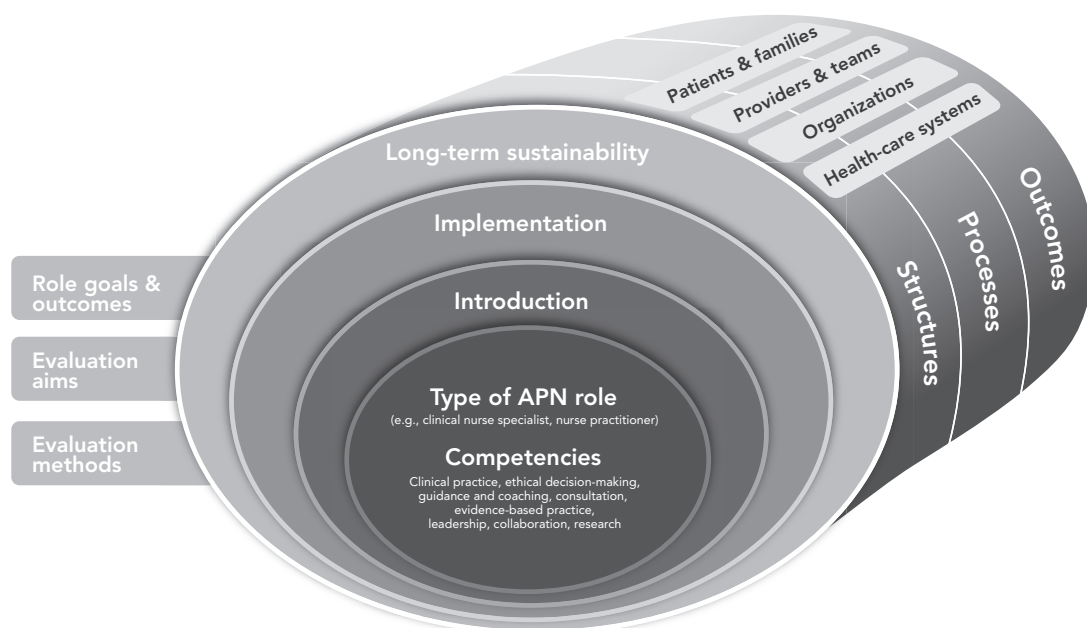
Needs-based simulation model for health human resources planning

- ▶ Developed in conjunction with the Canadian Nurse Practitioner Initiative
- ▶ Applicable to primary health care nurse practitioners across all jurisdictions in Canada
- ▶ Goes beyond traditional planning models, which are based on supply and projected population-to-provider ratios, to consider population health needs and the level of services required to meet those needs (CNA, 2006b)

Conceptual framework for evaluating the NP role in acute care settings

- ▶ Adapted from the Nursing Role Effectiveness Model, which was developed to facilitate the identification and investigation of nursing-sensitive outcomes (Sidani, 1999)
- ▶ Represents the complex system of interrelated factors that are present in the APN situation and impact role effectiveness.
- ▶ Includes three components: (1) structure — encompassing patient, APN and organizational variables; (2) process — consisting of the APN role components (clinician, educator, researcher and administrator) and the ways in which the role is enacted; and (3) outcomes — including patient- and cost-related outcomes. The framework proposes specific relationships among the structure, process and outcome components.

Figure 1: Evaluation framework matrix — key concepts for evaluating APN roles (Bryant-Lukosius et al., 2016)



Looking to the Future

Strengthening health human resources (HHR) is receiving increasing global attention, as exemplified by the release of several prominent political reports such as the World Health Organization's *Working for Health and Growth: Investing in the Health Workforce* and *Global Strategy on Human Resources for Health: Workforce 2030*. The global intent is achieving universal health coverage and the health-related sustainable development goals. "This unprecedented level of global commitment stems from the recognition of the critical role health professionals play in health systems performance, and the multiple workforce challenges that countries face" (Maier et al., 2017, p.13). Canada is no exception. While significant progress has been made in the integration of APN in Canada over the last 40 years (most notably with NPs), the full potential of this segment of the health-care workforce has not yet been realized. Enhanced integration of APN roles can achieve better care for individuals, improve the health status of Canadians and contribute to lower health-care costs.

Canada's population is aging, bringing with it rising rates of chronic diseases (including dementia). More and more individuals suffer from mental illness. Indigenous Peoples in Canada experience a disproportionate burden of ill health compared with non-Indigenous Canadians. In addition, many individuals have limited access to primary and tertiary care.

Despite these challenges, there is an optimal way forward through enhanced integration of advanced practice nurses. Taking this path would result in a shift to community-based care, premised on primary health care, health promotion, disease prevention and the determinants of health. All align exceptionally well with the nursing role. Scaling up and optimizing the roles of the NP and CNS, along with other health-care providers engaged in interprofessional collaboration, could lead to a bright future for Canadian health care.

Imagine, within an interprofessional approach:

- ▶ Every Canadian has access to an NP in the setting where they receive primary care
- ▶ Clients receive necessary enhanced screening and management for dementia, delirium and depression by an NP and geriatric CNS as the incidence of Alzheimer's disease doubles over the next few decades
- ▶ Residents in every long-term care facility receive primary care by an NP

- ▶ All Canadians have timely access to mental health services through the inclusion of at least a mental health NP and/or CNS (virtual and/or in person) in all mental health-care delivery models
- ▶ An increase in the number of collaborative autonomous NP/CNS primary care centres offering public health and community-based home care
- ▶ Indigenous health and health care is transformed by culturally competent and culturally safe care delivered by Indigenous NPs and CNSs
- ▶ Clients receive addictions treatment in programs that include CNSs and NPs (as implemented by the Centre for Addiction and Mental Health), including acute care settings
- ▶ All palliative care clients receive care delivered by teams that include a hospice palliative care CNS and an NP
- ▶ Cardiac clients discharged from hospital receive follow-up care from a CNS/NP through telehome monitoring and virtual access

Glossary

Advanced practice nursing (APN)

An umbrella term for registered nurses and nurse practitioners who integrate graduate nursing educational preparation with in-depth, specialized clinical nursing knowledge and expertise in complex decision-making to meet the health needs of individuals, families, groups, communities and populations

Advanced nursing practice (ANP)

ANP reflects the integration and application of a broad range of theoretical and evidence-based knowledge that occurs as part of graduate nursing education. ANP encompasses all the domains of nursing practice, the entire field of nursing and does not necessarily refer only to direct clinical care. Nurses in ANP roles may include those with graduate education working in policy, administration, nursing informatics, etc. (American Association of Colleges of Nursing, 2004 & 2006).

Autonomous(ly)

NPs are autonomous practitioners in that they initiate activities (such as prescribing, diagnosing, and ordering and interpreting tests) within their legislated scope of practice without physician supervision or direction.

Client

The beneficiary of care; may be an individual, family, group, population or entire community.

Client- and family-centred care

Nurses “seek out, integrate and value, as a partner, the input and the engagement of the patient/client/family/community

in designing and implementing care/services” (Canadian Interprofessional Health Collaborative, 2010, p.13).

Clinical nurse specialist (CNS)

A registered nurse with advanced nursing knowledge and skills in making complex decisions who holds a master’s or doctoral degree in nursing with expertise in a clinical nursing specialty. The CNS role reflects and demonstrates the characteristics and competencies of APN within the RN scope of practice, as outlined in CNA’s *Pan-Canadian Core Competencies for the Clinical Nurse Specialist* (CNA, 2014b). The CNS is an agent of change who brings value to clients, practice settings and organizations to improve safety, promote positive health outcomes and reduce costs (CNA, 2016a).

Competencies

Integrated knowledge, skills, judgment and personal attributes required of a nurse to practise safely and ethically in a designated role and setting (CNA, 2005).

Credentials

Marks or “stamps” of quality and achievement that communicate to employers, payers and consumers what to expect from a “credentialed” nurse; specialist course or program of study; institution of higher education, hospital or health service; or health-care product, technology or device.

Graduate education

Education beyond the baccalaureate level, including master’s, doctoral and postdoctoral levels.

Just culture

A risk management approach that is part of relational regulation that acknowledges that errors can happen for both human and system reasons and the best way forward is to not assess blame; instead, these are opportunities to learn and change. It redirects priorities from provider-centric adherence to rules to avoiding harm in a more client-centred manner (Bayne, 2012, as cited in Staples, Ray, & Hannon, 2016).

Mentor(ing)

A voluntary, mutually beneficial, long-term relationship in which an experienced and knowledgeable leader (the mentor) supports the maturation of a less experienced nurse with leadership potential (the mentee).

Nurse practitioner (NP)

A registered nurse with additional educational preparation and experience who possesses and demonstrates the competencies to autonomously diagnose, order and interpret diagnostic tests, prescribe pharmaceuticals and perform specific procedures within their legislated scope of practice (CNA, 2016b).

Regulation

All of those legitimate and appropriate means — governmental, professional, private and individual — whereby order, identity, consistency and control are brought to the profession; through regulation, the profession and its members are defined, the scope of practice is determined, standards of education and of ethical and competent practice are set, and systems of accountability are established (Styles & Affara, 1997).

Right touch regulation

A regulatory oversight approach that applies the minimal amount of regulatory force required to achieve a desired outcome. This involves using evidence-informed strategies to assess risk while being focused on regulating that risk and balancing that oversight with the resources required to promote good practice and high-quality nursing care (CRNNS, 2018).

Scope of practice

The activities that nurses are educated and authorized to perform, as established through legislated definitions of nursing practice, complemented by standards, guidelines and policy positions issued by professional nursing bodies (CNA, 2010).

Specialized area of nursing

Nursing practice that concentrates on a particular aspect of nursing, related to the client's age (e.g., pediatrics, gerontology), the client's illness/issue (e.g., pain management, bereavement), the diagnostic group (e.g., orthopedics, vascular surgery), the practice setting (e.g., home care, emergency) or the type of care (e.g., primary care, palliative care, critical care).

Appendix A: National Timeline of Advanced Practice Nursing Evolution in Canada

June 1999: The Canadian Nurses Association (CNA) board of directors approves the key elements of a national framework for advanced nursing practice.

2000: CNA publishes the first edition of *Advanced Nursing Practice: A National Framework*. It defines advanced nursing practice, identifies its characteristics and competencies, and describes the necessary education, the various domains of practice and potential roles, and its regulation. The framework is deliberately broad, in part to allow for variations among jurisdictions and in part to allow for evolution of advanced nursing practice roles.

2001-2011: The Canadian Health Services Research Foundation (which became the Canadian Foundation for Healthcare Improvement in 2012) and the Canadian Institutes of Health Research fund a 10-year chair program in APN to increase Canada's capacity of nurse researchers to conduct policy and organizationally relevant research.

2002: The CNA board of directors approves a revision to the framework that establishes a *graduate degree* in nursing as the minimum educational requirement for advanced nursing practice. CNA releases APN position statement.

2002: The Commission on the Future of Health Care in Canada, led by Roy Romanow, releases its final report; it promotes the role of the nurse practitioner, including an expanded scope of practice to admit clients to hospitals.

2004: CNA launches the Canadian Nurse Practitioner Initiative (CNPI), which leads to the development of a framework for the integration and sustainability of the nurse practitioner role in Canada's health-care system, including recommendations for practice, education, legislation and regulation, and health human resources planning.

2005: CNA brings together nursing stakeholders to discuss what could be learned from the existing advanced nursing practice roles, to identify what more could be done to support the evolution of advanced nursing practice and to identify principles and strategies that would promote the introduction of other advanced nursing practice roles. Participants identified CNA's national framework for advanced nursing practice as a useful guide in the continued development of this form of practice in Canada and recommended that it be updated periodically to respond to the needs of its users and to reflect changes in health-care system environments.

2005: CNA releases the first *Canadian Nurse Practitioner Core Competency Framework*, developed in collaboration with the Canadian jurisdictions through the support of CNPI.

2006: CNPI releases final report and tools, which include first ever pan-Canadian NP core competencies and Canadian Nurse Practitioner Exam.

2006: CNA publishes *Nurse Practitioners: The Time is Now* report

- **2007:** CNA releases revised ANP position statement
- **2008:** CNA publishes 2nd edition of *Advanced Nursing Practice: A National Framework*
- **2009:** CNA, with funding support from Health Canada, releases *Recommendations of the Canadian Nurse Practitioner Initiative: Progress Report*, which offers a pan-Canadian perspective on the successes, required adjustments and updated priorities for integrating the NP role
- 2009:** CNA releases NP and CNS position statements
- 2009:** The Atlantic advisory committee on health human resources commissions a study on the nature of extended/expanded nursing roles in Canada
- **2010:** Health Canada's Office of Nursing Policy and the Canadian Health Services Research Foundation commission an NP and CNS decision support synthesis
- 2010:** CNA releases updated *Canadian Nurse Practitioner Core Competency Framework* at the request of the RN regulatory bodies in Canada
- **2011:** CNA, in collaboration with its provincial/territorial members, launches the "Nurse Practitioners: It's About Time!" public awareness campaign in various jurisdictions. The campaign encourages all stakeholders to recognize the value of NPs and continue to make investments that allow for more NPs within the health-care system.
- **2011:** CNA shows that NP integration is well underway in the report, *Collaborative Integration Plan for the Role of Nurse Practitioners in Canada*. One of the report's major findings is that ongoing collaboration among key stakeholders is crucial for successful integration of NPs.
- **2012:** The Canadian Association of Schools of Nursing releases *Nurse Practitioner Education in Canada: National Framework of Guiding Principles and Essential Components*
- **2014:** CNA launches *Pan-Canadian Core Competencies for the Clinical Nurse Specialist*
- **2015:** The Canadian Council of Registered Nurse Regulators releases the *Practice Analysis Study of Nurse Practitioners*, which finds that NP practice is consistent across Canada, with NPs using the same competencies in all Canadian jurisdictions and across the three streams of practice (family/all ages, adult and pediatrics). The difference in NP practice lies in client population needs and context of practice, including age, developmental stage, health condition and complexity of clients.
- **2016:** *The Canadian Nurse Practitioner Initiative: A 10-Year Retrospective* shows that many positive strides were made toward integrating NPs into health care, including title protection, common role description and the expansion of scopes of practice.
- 2016:** CNA releases revised CNS and NP position statements
- 2016:** Registered nursing regulatory bodies adopt new entry-level competencies for NPs in Canada, which are developed from the *Practice Analysis Study of Nurse Practitioners*

Appendix B: Sample Research on the Impact and Outcomes of Advanced Practice Nursing

BETTER CARE

A systematic review of 24 randomized controlled trials (RCTs) found higher client satisfaction, a reduction in hospital admissions, and a reduction in mortality with advanced practice nurse-led care compared with physician-led care (Martinez-Gonzalez, Djalali et al., 2014).

A systematic review of 41 studies, including 31 RCTs, shows that care provided by NPs and CNSs versus physicians or other health-care professionals results in improved provision of client information (duration of their disease, symptom relief and options for self-management) and improved client satisfaction (Tsiachristas et al., 2015)

A systematic review of the impact of advanced practice nurses in caring for older persons found that NPs in long-term care provide timely assessment, diagnosis and treatment for acute and episodic conditions and injuries that reduce avoidable transfers of residents to the emergency department and improve client and family caregiver satisfaction (Morilla-Herrera et al., 2016).

A postoperative wellness model led by a CNS in British Columbia increased access to the hospital's cardiac surgery department — from 300 to 800 clients per year. The model of care is based on evidence and contributes to the department's fast-track surgery and rapid recovery approach to helping clients feel better and get home faster (National Expert Commission, 2012).

Systematic reviews show higher client satisfaction rates with advanced practice nurse-led care compared with that of physicians (Martinez-Gonzalez, Djalali et al., 2014; Swan et al., 2015; Tsiachristas et al., 2015; Morilla-Herrera et al., 2016).

Care provided by advanced practice nurses consistently shows equivalent or better quality across a large range of clinical outcome measures, across a wide range of care settings and for a variety of client groups (Kilpatrick et al., 2014; Martinez-Gonzalez, Tandjung et al., 2014; Swan et al., 2015; Tsiachristas et al., 2015).

Hurlock-Chorostecki and McCallum (2016) report that various studies measuring the role value of hospital NPs show:

- ▶ Reduced wait times in emergency departments
- ▶ Reduced length of hospital stay
- ▶ Reduced readmission rates and complications
- ▶ Improved adherence to evidence-based clinical guidelines
- ▶ Higher patient satisfaction
- ▶ Improved client perception of care continuity
- ▶ Enhanced interprofessional care

BETTER HEALTH

A systematic review found that when NPs provided care for clients with hypertension, there was a significant decrease in systolic blood pressure. This finding was based on five trials conducted in the Netherlands, U.K. and U.S. For other clinical parameters in clients with various chronic conditions (e.g., diastolic blood pressure, total cholesterol and blood glucose) no statistically significant differences were found between the NP- and physician-led groups (Martinez-Gonzalez, Tandjung et al., 2014).

A systematic review of 41 studies, including 31 RCTs across various settings, shows that care provided by NPs versus physicians or other health professionals results in improved clinical outcomes (Tsiachristas et al., 2015).

A systematic review of 11 RCTs found CNSs deployed in chronic disease outpatient care clinics provide similar client outcomes as other providers in alternative/substitution provider models (Kilpatrick et al., 2014).

CNS-led care is associated with similar or improved client health outcomes and satisfaction with care including:

- ▶ Delay in symptoms and physical impairment for lung cancer clients
- ▶ Reduction in early urinary and gastrointestinal symptoms, less fatigue and better physical functioning for clients receiving pelvic radiation
- ▶ Reduction in urinary symptoms and improved continence for prostate cancer clients (Bryant-Lukosius, Cosby et al., 2015)

CNS- or NP-led telephone follow-up for clients with breast and colorectal cancer, respectively, was associated with improved client satisfaction and achieved similar outcomes to physician-led follow-ups on a number of other factors, including anxiety, psychological well-being, quality of life, self-care, recurrence, and time to detect recurrence (Bryant-Lukosius, Cosby et al., 2015).

CNS care resulted in improved two-year survival rates for older clients with advanced (but not early stage) cancer. Clients also had a significant decrease in the odds of being hospitalized (Prince-Paul, Burant, Saltzman, Teston, & Matthews, 2010).

BETTER VALUE

A systematic review of 11 RCTs on the cost effectiveness of NP models of care shows lower health service costs when the NP has an alternative role in primary care (Martin-Misener et al., 2015b)

One systematic review of 10 studies suggested that services provided by advanced practice nurses result in equivalent or reduced costs, while maintaining equal or better outcomes, than compared with physicians (Swan et al., 2015).

Lower costs are associated with NP and CNS roles in ambulatory/community settings (Kilpatrick et al., 2014; Martin-Misener et al., 2015b).

In hospitals, NPs reduce costs through shorter hospital lengths of stay and by preventing hospital readmissions (Donald et al., 2015).

BETTER ENGAGEMENT

A lack of role clarity, along with legislative and regulatory barriers, puts barriers on the ability of NPs to work to their full scope of practice, leading to job dissatisfaction (Sangster-Gormley, Martin-Misener, & Burge, 2013; Maier et al., 2017; Kleinpell et al., 2014; Little & Reichert, 2018).

The ability to practise in a holistic, collaborative model of care, with an adequate salary, supports advanced practice nurses' job satisfaction and retention (Steinke, Rogers, Lehwaldt, & Lamarche, 2017).

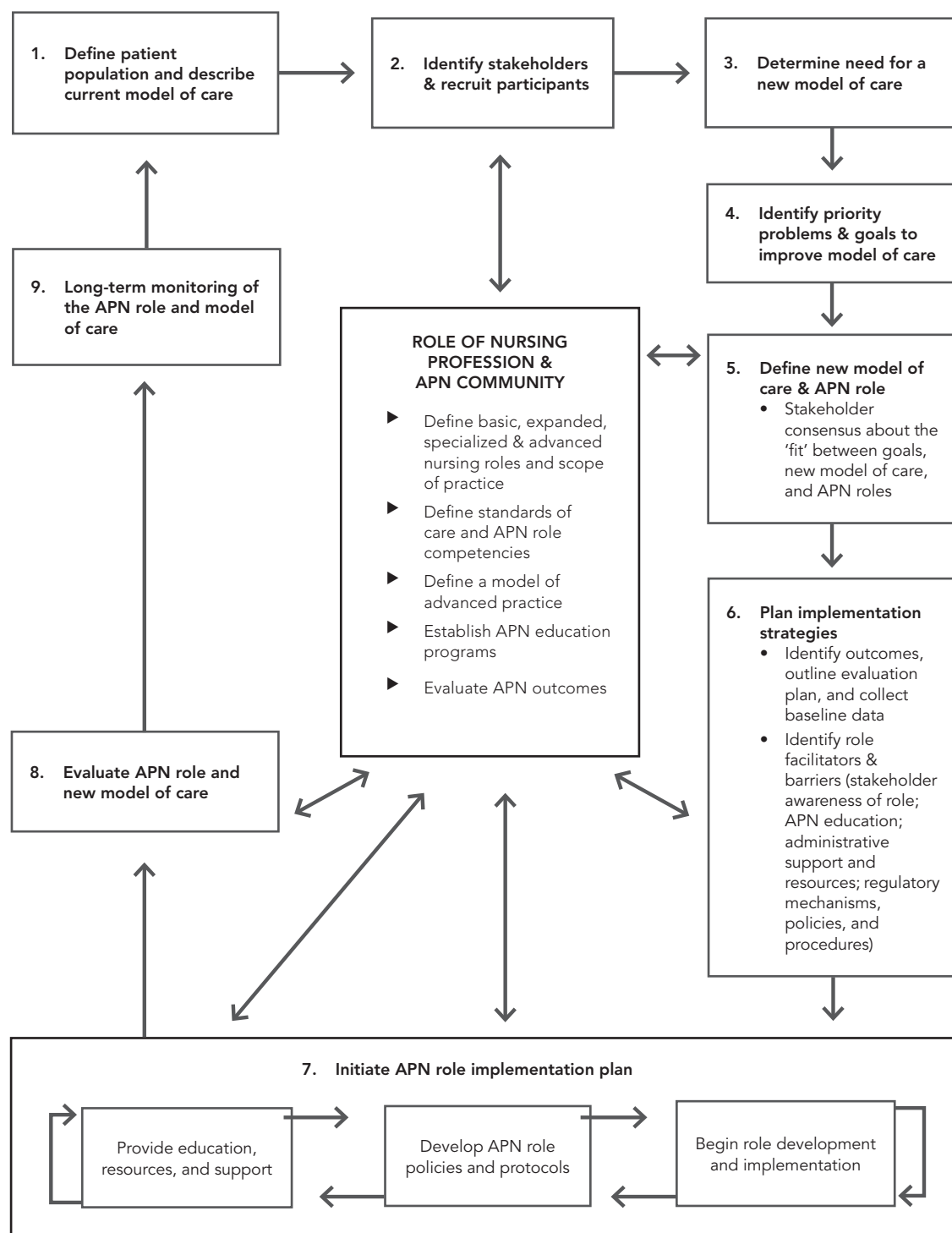
Advanced practice nurses' pay and pay structures influence job satisfaction and retention efforts (Maier et al., 2017; MacLeod, Stewart, & Kulig, 2017; Rhodes, Bechtle, & McNett, 2015; Little & Reichert, 2018).

Setting clear goals and expectations for the NP role in the team environment is critical for increasing job satisfaction (Wranik et al., 2015; Labrosse, 2016; Sangster-Gormley et al., 2013; Little & Reichert, 2018).

Organizational characteristics that promote job satisfaction include adequate physician support (Sangster-Gormley et al., 2013), effective communication, role delineation and clear team goals from management (Steinke et al., 2017), and opportunities for professional development (Little & Reichert, 2018).

Appendix C: PEPPA Framework

A participatory, evidence-based, patient-centred process for advanced practice nurse role development, implementation and evaluation (Bryant-Lukosius & DiCenso, 2004)



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