The Council of the Federation
Health Care Innovation Working Group

Canadian Physician Assistant Profession
The Potential Impact on the Canadian Health Care System

The Canadian Association of Physician Assistants
June 6, 2012
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Introduction

The Canadian Association of Physician Assistants (CAPA) would like to thank the Health Care Innovation Working Group for the opportunity to submit additional information regarding the further integration of Physician Assistants (PAs) into the Canadian public health care system. Our mission is to improve access to quality care through the Physician/Physician Assistant Model of patient-centered health care. The following points attempt to describe the Physician Assistant role and the impact that this profession can have on the health care system:

- Physician Assistants function in a collaborative semi-autonomous role which extends medical care to more patients in a cost effective and efficient manner.

- Physician Assistants make a significant contribution to patient care through their flexible and dynamic scope of practice with an ability to extend physician services across specialties and program services.

- Physician Assistant utilization is efficient and economical and does not result in increased resource allocation; Physician Assistants are designed to improve the health system and deliver enhanced efficiency.

- Physician Assistants provide the capacity of meeting the needs of the population in a safe, competent and cost effective manner as supported by experiences in the United States and as physician extenders and primary care providers in the Canadian Forces and globally.

In today’s environment, health care delivery is increasingly challenging; new funding frameworks and resource allocation issues call for increased efficiency at all levels of public service. Canadians require improved access to quality medical care that provides acute, preventative health, and chronic disease management through the use of primary care networks and collaborative teams. These teams will become increasingly challenged to meet the needs of the growing population using efficient and innovative methods. Canadian national and provincial commissions have highlighted the need for primary care reform; while international surveys of primary care physicians in seven countries indicated the current inadequate status of Canada’s primary care system in comparison to other nations. Evidence

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suggests a lean and perhaps inadequate supply of primary care providers.\textsuperscript{2} Calls for improved collaboration have been included in the National Forum on Health in 1997; The Right Honorable Mazankowski Health Report 2001; the Romanow Commission on Health Care in Canada 2001-2002 and many others, which also call for a team based collaborative model. There is also a call for increased collaborative practice with the College of Family Physicians of Canada supporting Physicians Assistants\textsuperscript{3} as part of the solution. Today approximately 4.5 million Canadians do not have access to a primary care provider.\textsuperscript{4} CAPA believes that the Health Care Innovation Working Group and the national introduction and support of Physician Assistants as part of the solution, is a positive step.

As the Physician Assistant profession is relatively new to the public health care system in Canada, it was felt beneficial to present Canadian data and US material in this submission. In the United States, the profession has been in existence for over forty years and is currently one of the fastest growing segments of the health care workforce, with almost 84,250 PAs practicing primary care and in all medical specialties\textsuperscript{5}. There is a growth rate of 6500 new PAs a year predicted with a forecast of 20 new education programs starting in the next 5 years. Our analysis also includes research from Australia, New Zealand, the Netherlands, and the United Kingdom as these countries have similar health care delivery systems and resource issues as Canada.

The inclusion of PAs in the public health care system is a safe, economical and high quality alternative to some of the challenges that we are facing with health care delivery in Canada.

Physician Assistants are part of the solution to providing better access and optimizing patient-centered care for Canadians in a safe, competent and efficient manner.

Global Impact of the Profession

Physician Assistants (PAs) currently practice in Australia, Canada, England, Ghana, Kenya, New Zealand, Nicaragua, Scotland, South Africa, United States, the Netherlands, Taiwan and Thailand.\textsuperscript{6} The common

\textsuperscript{2}Moores, Wilson, Cave, Woodhead, and Donoff; Improving the Quality and Capacity of Canada’s Health Services: Primary Care Physician Perspectives. Healthcare Policy, 3(2) 2007: 0-0


principal shared in all these countries is the need to provide primary health care and medical services traditionally delivered by physicians. The fact is not all medical services require the extensive and comprehensive knowledge of a physician and can be delegated to qualified health care professionals.

The primary reason cited for the development of a global and common PA curriculum was the discrepancy between the supply and the demand for health care providers. There is a growing understanding that a rearrangement of work tasks among health care professions is necessary. Delegation of tasks from highly educated and relatively expensive physicians to other health care workers should help prevent the formation of waiting lists for patients and make health care more efficient.\(^7\)

In Canada the PA profession originated with the Canadian Forces (CF). Senior military medics (medical assistants, medics, and navy corpsman) were trained to provide advanced care on navy ships as well as on the front lines during the Second World War. This was an operational necessity due to the shortage of medical doctors within the scale of operations and geographic reality. Often physicians were stationed to larger geographic areas where the majority of the military personnel were located. Military medics were deployed to the front lines as part of a team and, working under the direction of a physician, would provide care to military personnel and in some instances civilians. If physicians were not available, the education, training, and experience of these providers would allow quality medical care beyond first aid measures to continue. With time it was observed that quality care did not always require a physician’s or surgeon’s intervention. This model of care evolved in the military and Physician Assistants became more prevalent not only for deployment on missions abroad, but also on ships and at various Canadian Forces Bases.

PAs first entered the public health care system in Manitoba in 1999. Since then PAs have been integrated in Ontario, New Brunswick and soon in Alberta. There are currently upwards of 300 PAs working in the public health care system, the majority of which are employed in Ontario. The profession is regulated in Manitoba and New Brunswick by the provincial colleges of physicians and surgeons and regulation is pending in Ontario. In October 2011, CAPA was asked by the Health Professions Regulatory Advisory Council to submit an application for regulation of the PA profession. CAPA submitted the application in January 2012 and is currently awaiting the Ontario Minister of Health and Long-Term Care’s decision. In Alberta a voluntary registry exists under the College of Physicians and Surgeons of Alberta and planning is underway to launch a pilot project by Alberta Health Services to integrate PAs into the health care system.

The start of the formal Physician Assistant profession in the United States occurred in 1961 when Dr. Charles Hudson spoke to the American Medical Association, calling for a profession to work alongside doctors performing skilled medical tasks requiring advanced knowledge. It was foreseen that the nature

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\(^7\) Geesje; Olle. ten; Helianthe and Kort (2008). *Training the Physician Assistant in the Netherlands*. University Medical Center, Utrecht, Netherlands. The Journal of Physician Assistant Education, Vol 19, No 4
of technology and the complexity of care had created a shortage and misdistribution of physicians. Dr. Eugene Stead of Duke University proposed the Physician Assistant solution and the first graduates began to practice in 1967\(^8\). The Physician Assistant Educational Association reports on their website in-excess of 160 accredited programs as of May 2012.

**Canadian Physician Assistants are academically prepared and highly skilled health care professionals, educated in the medical model, that practice medicine under the supervision of a licensed physician, within a patient-centered health care team.**

**Canadian Medical Association recognized Physician Assistants as a health care profession in 2003 with a unique body of knowledge and competency profile**

**Scope of Practice**

The Physician Assistant scope of practice mirrors that of their supervising physician. PAs possess a defined body of knowledge building on the medical sciences and clinical medicine that includes clinical and procedural skills, and a professional philosophy to support effective patient care. PAs apply these competencies to collect data and interpret information, develop and further investigate differential diagnoses, make appropriate clinical decisions, and carry out required diagnostic, procedural, and therapeutic interventions\(^9\). They practice medicine within a formalized physician/PA relationship. PAs supplement, not supplant, the work of physicians as both a philosophy of the profession, and reality of clinical practice with tasks varying based on the PAs level of experience and expertise. PAs practice in all clinical settings including specialty areas such as surgery, internal medicine or family practice, emergency, rehabilitation, orthopaedics, obstetrics and oncology. PAs provide care in any area with traditional physician practice.

Physician Assistants provide nine general clusters of activity that serve the patient population seen in primary care environments\(^10\).

- Gathering data
- Seeing common problems and diseases
- Conducting laboratory and diagnostic studies
- Performing management activities
- Performing surgical procedures
- Managing emergency situations

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- Conducting health promotion and disease prevention activities
- Prescribing medications
- Using interpersonal skills

**Physician Assistant Education**

Canada has four Physician Assistant academic programs, which are accredited by the Canadian Medical Association (CMA) Conjoint Accreditation Services, they include:

- McMaster University Physician Assistants Education Program, Bachelor of Health Sciences Degree (Physician Assistant);
- Canadian Forces Health Services Training Centre Physician Assistant Program, Physician Assistant Baccalaureate in an Allied Health Program;
- The Consortium of Physician Assistant Education (which includes: the University of Toronto; The Northern Ontario School of Medicine and the Michener Institute for Applied Health Sciences) Bachelor of Science Physician Assistant Degree; and
- University of Manitoba Master of Physician Assistant Studies program.

The educational curriculums are modeled after the CanMEDS Physician Competency Framework and mirror that of a physician's education. Physician Assistants are educated as generalist medical practitioners in the medical model. They develop clinical expertise through experiences and mentoring over time while on clinical rotation and in practice. The Physician Assistant profession’s philosophy is to approach the provision of medical care in collaboration with a physician but as critically thinking and problem solving medical professionals in their own right.

A single national standard is ensured through the Physician Assistant Certification Council of Canada (PACCC), an independent Council of the Canadian Association of Physician Assistants (CAPA) that administers and maintains the PA certification process. This includes the PA Entry to Practice Certification Examination (PA Cert Exam), written upon the successful completion of a Canadian Medical Association (CMA) accredited PA program. The PA Cert Exam is administered independently of any training facility to ensure that the PA meets the standard set out in the National Competency Profile (NCP) for the Physician Assistant profession. PACCC aims to reassure the public that there is a national standard of care from PA providers who successfully complete the PA Cert Exam. Those whom are successful carry the designation of Canadian Certified Physician Assistant (CCPA).

**PAs contribute to health system and physicians’ effectiveness.**

The principal utilization of PAs focuses on clinical situations where duties normally performed by the physician can be delegated to a qualified medical profession. PAs are permitted to practice by way of delegation of the supervising physician. Under the provincial *Medical Acts*, physicians have the ability to delegate controlled acts to a health professional. PAs are not autonomous professionals, a relationship
with a supervising physician is essential to their ability to practice. The delegation of these duties frees up the physician’s time to address complex issues that require the extensive and unique knowledge of a physician while potentially expanding the physicians practice and improving the overall quality of care provided. Research demonstrates that PAs in primary care settings can be used for 75 percent of all visits without referral to physician level care. Furthermore, a study conducted by the Australasian College of Emergency Medicine and Australasian Society for Emergency Medicine suggests that PAs can manage up to 62 percent of all patients in emergency care environments. This study also found that in the emergency department setting, PAs appeared equally capable of performing procedures if adequately trained and supervised and the quality of care provided by PAs was comparable with that of emergency specialists (attending) physicians and senior residents. This resulted in shorter wait times for patients.

In both of these situations, PAs have been shown to enhance the delivery of care and improve access for patients. In preparation of this document, CAPA conducted a thorough literature review. A total of 25 studies were reviewed from Canada and abroad. The literature suggests that PAs can potentially increase the number of patients seen, decrease wait times, reduce doctors working hours, enhance productivity and are a safe, quality and economical alternative to other health care options.

One of the first Canadian studies to be conducted on the utilization of PAs, attempted to measure the impact of the integration of the new roles of primary health care nurse practitioners and PAs on patient flow, wait times and proportions of patients who left without being seen in six Ontario emergency departments (EDs). The study demonstrated that PAs were able to improve wait times, patient flow and diminish the rates of those who left without being seen in the ED. Specifically when a PA was on duty the odds of a patient being assessed within the wait time benchmark were 1.9 times higher than when a PA was not on duty. Further, when a PA was on duty, the likelihood that a patient left without being seen was less than half than when a PA was not on duty.

A report on Orthopaedic Physician Assistants in Manitoba published in the Journal of Canadian Surgery, found that PAs were able to free their supervising orthopaedic surgeon and the equivalent of four 50 hour work weeks per year, which in turn was used for activities such as administrative work, research and other clinical activities. Furthermore, surgical throughput was greatly enhanced: PAs allowed for use

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of the double room model, which increased the group’s surgical throughput of primary joint replacements by 42 percent over the preceding year and a reduction in median wait times from 44 weeks to 30 weeks. The study also suggests that the use of PAs as first assistants in the operating room instead of general practitioners freed up the equivalent of 1.5 general practitioners working 40 hours per week for 44 weeks per year based on a surgical volume of 1400 joint replacements per year. In this team, PAs were regarded as important members of the health care team by surgeons, nurses, orthopaedic residents and patients, and were found to be essentially cost neutral. This Canadian study on orthopaedic hip and knee joint replacement conducted a cost analysis on the use of PAs and found that of the 402 procedures performed in 2006, PAs were present for 279 (69.4%) of them and the total forgone general practitioner assist fees were $56,113 for the 402 procedures, which resulted in an average cost saving of $139.58 per procedure.15

A literary analysis conducted by a team consisting of a PA candidate from the Faculty of Health Sciences, McMaster University and a physician from the Faculty of Medicine, University of Toronto, looked at various Canadian and US research studies regarding PAs and the efficiency of their use.16 Of specific relevance was data obtained from two hospitals in Halifax, Nova Scotia for the purpose of conducting a business case analysis on the effectiveness of the introduction of a PA in a plastic surgery clinic. The presented research found that depending on the type of surgery, a PA conducts over 50 percent of the surgeon’s tasks. Additionally, the PA could increase overall surgical productivity by 37 percent and was cost neutral while using a single operating room. If two operating rooms are available to be used simultaneously, the potential for improved productivity and cost effectiveness is greater.17 This reinforces the flexibility and the adaptability of the PA role while at the same time supporting the efficiency of the role.

A study was conducted at Seven Oaks General Hospital in Winnipeg, Manitoba with a team comprised of physicians, PAs and NPs providing care to a patient population that had increased 30 percent since 2008. The team approach with both PAs and NPs found wait times, length of stay, and “left, not seen” rates declined to “enviable” levels without a significant increase in baseline physician staffing. Nurse practitioners staffed the minor treatment area seeing triage levels 3,4,5 during day shifts while PAs provided treatment in the emergency department with levels 2,3,4,5. With assistance from PAs seeing significant numbers of patients, emergency physicians are able to focus on patients with the most acute needs, and have more time for consultation with team members.18

a team approach with the medical doctor and the PA. The minor treatment area was used by the PAs to treat patients after the NP’s shift.

A systematic review conducted by Kleinpell included 31 studies examining the use of both nurse practitioners (NPs) and PAs in the intensive care unit (ICU). The review concluded that the integration of alternative health care providers into ICU health care teams positively impacted patient care and that patient flow was increased without altering patient outcomes or direct hospital costs.  

The balance between health care needs and available resources is a constant challenge in many countries around the globe. Cost effective alternatives to training and retaining more physicians are considered, however one potential solution common to many countries is the Physician Assistant. In New Zealand, PAs are a relatively new phenomenon. The Health Board undertook a trial to introduce the PA profession into the public health care system. The Counties of Manukou District Health Board in New Zealand conducted an evaluation of the Physician Assistant Trial. The report noted that PA teams improved the speed of treatment by taking a first responder role in emergencies and always being available on the ward. In addition, evidence suggested that patient safety was enhanced by the presence of PAs. Teams with PAs made 24.5 percent fewer patient-at-risk calls (calls made by nurses requesting assistance with seriously ill patients) than teams without PAs. The fact that fewer patients “crashed” on teams with PAs suggests that PAs were improving patient safety, possibly by intervening earlier than would otherwise have occurred. Staff members who worked with PAs reported care was made safer by the PAs who were constantly available, knowledgeable, diligent and vigilant workers who took their time to focus on quality and safety. As a result of their inclusion into the New Zealand health care system, PAs improved patient satisfaction and team communications, fostered teamwork, organization, trust and enhanced patient safety and care.  

An Australian literature review conducted by Siggins-Miller Consultants, prepared for Health Workforce Australia, revealed that PAs can reduce escalating health care costs by providing a new workforce group who are qualified and can provide safe and effective services at a lower cost. Furthermore it is suggested that PAs can increase the productivity of other health professionals and doctors by releasing them from routine and repetitive tasks to allow them to work at the top of their license. The Australian report cited American and Canadian studies, which reinforced the use of the Physician/PA model of care as economic and resource saving alternative in a variety of specialty settings. Further literature cited


that “experiences with surgical PAs in rural practice settings resulted in significant time savings for general surgeons who could be freed up to concentrate on more acute and complex care needs.” In family practice settings the use of PAs has been found to be cost effective, with compensation to production ratio of 0.36. The annual financial differential for the practice was $52,592. Similarly, PAs employed in dermatology practices have been shown to generate up to six times their salaries in billings.\(^{23}\)

In the United States PAs have been proven to be a less expensive alternative for increased staffing. One rural ED staffed by both ED physicians and PAs found that the net cost of using ED physicians was higher with a net loss of $50.00 compared to a net gain of $260.00 in employing PAs\(^ {24}\). A literature review titled: Economic Basis of Physician Assistants Practice, examined the cost-benefit projection and estimated that the employment cost of a PA was 53 percent less than a physician\(^ {25}\). In an environment where it is difficult to recruit an adequate number of physicians to meet the Canadian population’s needs, this is a viable and economical solution.

### Economic Impact

Question may arise about the validity of this data as it relates to Canada given that these statistics were measured in the US health care system where the majority of patients have third party health insurance or pay out of pocket for medical care which differs from Canada. However, if we factor in billings from physicians to provincial Medicare and the salary incurred by the PA, the savings to the provincial governments would be comparable. Physician Assistant salaries are generally a third of primary care physicians\(^ {26}\) according to a comparison through several online salary portals.

Currently in Canada there are two different methods in which a PA is remunerated. The majority of PAs are funded by the provincial governments. Some governments have built in their budgets funding for PAs as program support, for example, Manitoba with 80 positions dedicated for Physicians Assistant (or Clinical Assistant - a non-certified limited scope provider) in support of specialty services. Other provinces such as Ontario have established grant programs, which provide funding for PAs on a contractual basis for example, the Ontario Demonstration Projects funded by the Ministry of Health and Long-Term Care. Some physicians do not subscribe to either program and have decided to fund the PA from their operation budgets thus billing Medicare for services rendered by the PA to their patients. It is CAPA’s desire to work with the provincial medical associations to come up with a comprehensive

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funding model(s) to ensure that PAs are adequately compensated and that there is a consistent approach across the country for physicians wanting to employ PAs in their practices.
Summary

Physician Assistants have been part of the North American health workforce since 1965 and the concept has expanded globally.

Physician Assistants have a positive impact on the existing medical workforce. PAs are:

1. Formally educated and are nationally certified as medical generalists with the ability of horizontal mobility between medical specialties;

2. Improving access to quality medical care and services by supplementing or supplying physician level care;

3. Allowing attending physicians, surgeons, and residents to spend more time in clinics or theatres to perform more clinically relevant tasks and receive further education and training;

4. Allowing the physicians to concentrate on tasks and medical problems they are alone uniquely qualified to perform;

5. Playing a role in coordinating care across the health care system;

6. Improving access to treatment by providing the initial history and diagnostic services on the ward, clinics or units including the emergency or family medical units when volumes are high and physicians are not available;

7. Improving continuity of care due to their presence in the clinic or on the ward addressing the service gap created when physician/house officers/residents are absent;

8. Increasing availability to allied staff, nurses, patients, and family throughout the day to assess patients or provide information;

9. Providing a reliable point of contact for consults when the residents or attending physician are not available;

10. Reducing communication issues occurring in handovers between the night-shift, week-end coverage, patient-at-risk team and the doctors; and

11. An economic alternative to support and supplement patient care.
Conclusion

A review of the literature on the utilization and benefits of the Physician Assistant profession demonstrates that PAs are a proven safe, efficient and cost effective, patient-centered team model of care that increases access to quality care for patients and appears to have a significant benefit to Canada.

Canada’s health care environment is changing and provincial governments are being tasked to do more with less. Limitations to health care resources are occurring while the needs of a growing population are increasing. The Physician Assistant profession is a sustainable economic solution for health human resources and stressed resources required to deliver a high level of quality care that Canadians deserve.

The Canadian Forces have been employing PAs for over 50 years and are very satisfied with the standard of care that these professionals provide. A number of provinces have already incorporated PAs into their public health care teams and are thriving. Our neighbours to the south provide an excellent example of how the profession can positively impact health care delivery. Australia and New Zealand are supportive of the role and are ready to take the next steps.

It is time to be innovative and move away from the traditional model of health care delivery in Canada.

On behalf of our PA members, the Canadian Association of Physician Assistants would like to thank the Council of the Federation Health Care Innovation Working Group for the opportunity to elaborate on our previous submission and would welcome the occasion to meet with the Working Group to discuss this analysis further. CAPA is optimistic for the future of health care in Canada, provided that PAs are included as part of the solution.
References


