



**PHYSICIAN ASSISTANTS:
UTILISATION IN THE UNITED
STATES AND INTERNATIONALLY
– AN UPDATE**

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CMVH

CENTRE FOR MILITARY & VETERANS' HEALTH

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1. EXECUTIVE SUMMARY

The contemporary physician assistant (PA) concept emerged in the United States in the mid-1960s and now has a four decade record of changing health care throughout the country. This achievement has been remarkable in a number of areas but the military use of PAs has been one of the most dramatic. PAs are now in all aspects of medicine in the three branches of the US military, as well as the US Coast Guard, and the US Public Health Service. As the Americans have developed their cadre of PAs the Canadians have done so as well but utilizing a tri-service form of PA. Both these countries offer remarkable models of adaptation and innovation in extending the career performance of their medical support services.

There has been an increasing amount of interest in Australia around the area of health workforce innovation, in response to shortages of medical and nursing staff. With the support of the Executive Dean of Health Sciences at the University of Queensland, and interest from the Australian Defence Force (ADF) through the Head of the Defence Health Services Division, the introduction of the PA profession is one strategy that could be used to address this problem. This report culminates a visit to the American Academy of Physician Assistants Conference in Philadelphia, Pennsylvania in May 2007.

All objectives of the trip were achieved, which are detailed in this report, including:

- to understand the PA role in various settings and countries;
- to understand how PAs are used in the military;
- to learn how training is conducted in both the military and civilian sectors;
- to network with faculty of both US and Canadian PA programs;
- to network with military chain of command in PA training and recruitment; and
- to report on updated information about the PA profession development in Canada, Scotland, United Kingdom and the Netherlands.

The international updates provided by Canada, specifically the Ontario and Manitoba provinces, the United Kingdom and Scotland detailed in this report prove how quickly and successfully this profession is continuing to spread outside of the United States. Australia could easily adapt these strategies in their efforts to introduce the PA profession.

Both Canada and the United States started their PA education programs with military trained health care assistants or medics and then integrated this with the civilian health systems. In doing so they allowed the military health professionals to transfer their skills to adapt to civilian life without wasting their numerous skills. Both programs prepare their graduates to be skilled in advanced trauma management, public health and sanitation, crisis management, and occupational medicine in addition to general medicine.

The implications for PA development in Australia are extensive and continue to be debated by policy makers and thought leaders throughout. As the civilian community moves to adopt mid-level delegated care health workers, such as physician assistants, the ADF is in a position to keep abreast with this change in workforce, and ensure that its medics are not left isolated from the new career pathways emerging.

In the ADF, our medics are in a position to become graduates when a PA program commences in Australia. Their medical training and access to tertiary education programs through Centre for Military and Veteran's Health (CMVH), make the University of Queensland, in collaboration with CMVH and Centre for Health Innovations and Solutions (CHIS), the ideal platform to initiate a PA education project, which it is planning to do with a start date of 2009.

The recommendations in this report are made through the eyes of an Australian officer who is a health professional, a member of an academic oriented group of researchers and a consumer of healthcare.

These recommendations include:

1. CMVH and CHIS continue to approach Queensland Health and urge them to initiate a two year pilot program using US-trained PAs in the Queensland Health care system.
2. Should Queensland Health decline this pilot program then CMVH and CHIS should approach other states or organisations willing to participate, including the Australian Defence Force.
3. CMVH to provide further updates of the introduction of the PA role in Australia at the Australian Military Medicine Association (AMMA) conference in Melbourne in October 2007.
4. The ADF to consider training a select number of medics in the US or Canadian military PA programs.
5. The ADF accept the invitation to visit the IPAP program in San Antonio and the PA program at Base Borden in Ontario. The objective is first hand observation of the program rigor and utility.
6. CMVH and CHIS send a contingent of educators and medical personnel to the Physician Assistant Education Association (PAEA) meeting in Tucson, Arizona in October 2007.
7. A representative from Australia presents a military and civilian update of the effort to introduce the PA profession into Australia at the international round table sessions at the AAPA Conference in San Antonio, Texas in May 2008.

2. BACKGROUND

Definition

The contemporary physician assistant (PA) concept arose in the United States of America in the mid-1960s and the first graduates were in 1967. On its official website the American Association of Physician Assistants (AAPA) provides a detailed definition which states that a license (from a state authority) or credentials (from the federal constituency) is required and outlines the specific responsibilities physician assistants have and their relationship with physicians:

Physician assistants are health care professionals licensed to practice medicine with physician supervision. PAs employed by the federal government are credentialed to practice. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery, and in virtually all states can write prescriptions. Within the physician-PA relationship, physician assistants exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. A PA's practice may also include education, research, and administrative services¹

The following definition shows how the physician assistant can undertake some of the roles previously only done by doctors;

Physician assistants are clinicians who are licensed throughout the United States to practice medicine in association with physicians. They perform many of the tasks previously done solely by their physician partners, including examination, diagnosis, and carrying out investigations, as well as treatment and prescribing. All physician assistants must be associated with a physician and must practice in an interdependent role, described as “negotiated performance autonomy”.

The crucial points to take from these definitions are that PAs are capable of undertaking a broad spectrum of health care tasks including diagnosis, treatment and prevention but cannot practice in the USA without a license. Furthermore, they need to be supervised (either on site or at a distance) by a doctor, and practice “within the medical model of care”.¹

Physician Assistants in North America

PAs practice in all types of clinical settings where physician services are traditionally offered: urban neighbourhoods, rural communities, hospitals, and public and private medical practices.² They serve as commissioned officers in all US military branches and the US Public Health Service. In clinical practice most PAs spend their time in a medical office or primary care settings but some work in hospitals and divide their time among the wards and surgery. In addition to roles in all the primary care specialties, PAs can be found in many non-primary care specialties.

PAs are highly dispersed in the US covering all 50 states. Each US domain has enabling legislation and regulations governing PA practice, resulting in each state having its own set of requirements and procedures.

Most states grant “licences” to PAs. However, a few states use the terms “registration” or “certification” for PAs who are authorized to practice in the state. Breaking news at the conference was that PAs in Indiana achieved an historic victory with the Governor signing into law a bill that allows physicians to delegate prescribing authority to PAs and make PAs licensed, rather than certified. This means that all 50 states plus the Districts of Columbia and Guam now allow physicians to delegate prescriptive authority to PAs.

A nationwide survey conducted by the international communications company, Fleishman-Hillard, demonstrated high awareness of and strong positive feelings toward the PA profession.³ Just over 1000 adults in the US were interviewed by telephone over the period 27-30 April 2007. The results show that two out of three adults responding to the poll were aware of the PA profession with over 80 percent of all respondents saying they would be willing to be seen by a PA in the event of their primary medical doctor being unavailable.

Commemorating the 40th anniversary of the PA profession in the US the AAPA released the following information: there are currently 65, 000 PAs in a country of 305 million people. As of 2007 there are 136 accredited PA educational programs in the US with approximately 5, 500 graduates each year.

Even with these impressive figures the demand still exceeds the supply and the US Bureau of Labour Statistics predicts this will continue through 2014.

“Employment of PAs is expected to grow much faster than average for all occupations through the year 2014, ranking among the fastest growing occupations, due to anticipated expansion of the health care industry and an emphasis on cost containment, resulting in increasing utilization of PAs by physicians and health care institutions.

Physicians and institutions are expected to employ more PAs to provide primary care and to assist with medical and surgical procedures because PAs are cost-effective and productive members of the health care team. Physician assistants can relieve physicians of routine duties and procedures. Telemedicine—using technology to facilitate interactive consultations between physicians and physician assistants—also will expand the use of physician assistants. Job opportunities for PAs should be good, particularly in rural and inner city clinics, because those settings have difficulty attracting physicians.

Besides the traditional office-based setting, PAs should find a growing number of jobs in institutional settings such as hospitals, academic medical centres, public clinics, and prisons. Additional PAs may be needed to augment medical staffing in inpatient teaching hospital settings as the number of hours physician residents are permitted to work is reduced, encouraging hospitals to use PAs to supply some physician resident services. Opportunities will be best in States that allow PAs a wider scope of practice.”⁴

Physician Assistant interest in Australia

There has been an increasing amount of interest in health workforce innovation over the past few years. As stated in the Productivity Commission Report (2005), Australia is experiencing workforce shortages across a number of health professions despite a significant and growing reliance on overseas trained health workers. The shortages are even more acute in rural and remote areas and in certain special needs sectors.⁵

In November 2005 a Health Innovation Conference was held in Brisbane to discuss the education and training issues for the future health workforce.⁶ This meeting was attended by over 200 health professionals, including doctors, nurses and other health professionals. The conference noted that a workforce that was more flexible, mobile and multi-skilled was required to meet the demands of an ageing population troubled with chronic disease. Key issues that were addressed included what the health care requirements would be for the next few decades and who would deliver them, how these practitioners were going to be trained and accredited and how the consumers were going to pay for the services. A variety of speakers, both national and international from a variety of backgrounds including civilian and military, gave their opinions on how to tackle these issues. There was acknowledgement of the influence that the military has had in the development of the physician assistant (PA) role in the United States and Canada. The Head of the Australian Defence Force (ADF) Defence Health Services Division, Air Vice Marshall Tony Austin, presented the military perspective on how the ADF has been using their military medical assistants (medics) for a long time.

The University of Queensland, through the Executive Dean of Health Sciences, has advocated for reform for several years, in particular for the physician assistants.⁷ More recently there have been further developments and discussions regarding the introduction of the PA profession in Australia. The University of Queensland together with James Cook University working together in partnership held a conference in Mt Isa in December 2006. The meeting called for, amongst other things, a consistent approach nationally to developing competencies for clinical associates, such as PAs.⁸

In 2007 I was assigned the role of Project Officer for the Health Workforce Innovation Advisory Subcommittee (HWIASC). The role of the HWIASC of the Faculty of Health Sciences Teaching and Learning Committee is to advise the Executive Dean, through the Teaching and Learning Committees on workforce aspects, current and future, that relate to the development, the content and the structure pertaining to academic programs. One of the recommendations of the Committee in its first annual report was for the subcommittee to:

*‘adapt the National Health Service (NHS) Skills Escalator to suit the Australian health sector, and then use this to assist in priority setting on the development of training programs for new or extended roles in Queensland and elsewhere’.*⁹

In early 2007 the CMVH was invited to send a representative to the American Academy of Physician Assistants (AAPA) Annual Conference in Philadelphia, Pennsylvania in May 2007. It was decided that due to my role on the subcommittee that I would represent CMVH at this conference. Other representatives from Australia included Pamela Stronach (James Cook University) and Laurent Frossard (Centre for Health Innovations and Solutions).

My preparation for the conference included reading the literature on health workforce innovation and the developing interest of the PA profession in Australia. One of the most useful reports was one provided by the study team from The University of Queensland and James Cook University who attend the same conference in 2006.¹⁰ This report provided important guidance. Objectives I set for this trip were:

- to understand the PA role in various settings and countries
- to understand how PAs are used in the military
- to learn how training is conducted in both the military and civilian sectors
- to network with faculty of both US and Canadian PA programs
- to network with military chain of command in PA training and recruitment
- to report back to my colleagues on updated information about the PA profession development in Canada, Scotland, United Kingdom and the Netherlands.

3. AMERICAN ACADEMY OF PHYSICIAN ASSISTANTS MEETING

The 35th Annual AAPA Conference was held in Philadelphia, Pennsylvania over the period 26-31 May 2007. This conference brings PAs, faculty, students, and policy makers together to develop ideas, promote professional development and provide education. The primary purpose for most attendees is education; innovations in medicine, new and unique strategies in patient care, and to maintain their annual requirements of 100 hours of continuing medical education (CME) every two years for certification and licensure. The educational content is sophisticated and delivered by some of America's top health care professionals. Many activities take place at this annual meeting including a House of Delegates meeting, the National Commission on the Certification of Physician Assistants (NCCPA), the Physician Assistant Education Association (PAEA), and the Accreditation Review Commission on Physician Assistant Education (ARC-PA). Relevant to this report is that the annual AAPA meeting is considered the primary event for international counterparts to interact and discuss how they have progressed in PA activities in their countries.

The conference was attended by over 8,000 clinically active PAs and PA students spanning 6 days and provided professional development opportunities to PAs, students and faculty through the following activities:

- general CME sessions covering a wide range of topics; neurology, oncology and orthopaedics amongst others;
- a schedule of student specific activities and workshops;
- an Education Program aimed to develop clinical and professional educational activities to assist PAs in their ongoing efforts to remain current with medical knowledge, clinical skills and health care issues;
- an Exhibit Hall featuring more than 250 exhibitors representing a wide range of medical products and services, career opportunities, professional affiliations and professional services; and
- the Annual Clinical and Professional Poster Session coordinated by the AAPA Clinical and Scientific Affairs Council. The 150 posters featured abstracts of original research about PA behaviour, case studies/clinical reports, and educational activities.

The conference was attended by over 150 uniformed PAs from US and Canada including many senior military officers in leadership roles. Over 40 uniformed US Public Health officers led by Rear Admiral Michael Milner, the highest ranking PA in the US Public Health Service. The acting US Surgeon General, Vice Admiral Kenneth Moritsugu, was also in attendance. He makes a point of attending this meeting every year. I had the honour of meeting both admirals and in the course of discussion they expressed strong support of Australia's attempt to introduce the PA profession. They asked if they could be of any assistance and would welcome any official lines of communication. Lieutenant Colonel John Chitwood, a Pentagon Representative for the Air Force, offered to be my military escort for military occasions and provided a wealth of information and support enabling me to achieve my objectives during the conference.

4. PHYSICIAN ASSISTANTS IN THE MILITARY

The American Federal Government is the largest employer of PAs with approximately 12% of all employed PAs having a professional relationship with the US Government, including the US Armed Forces, US Department of Veterans Affairs, Bureau of Prisons and the US Public Health Service. There are approximately 1150 uniformed PAs on active duty in the military worldwide and another 1200 are in the Veterans Healthcare Administration. Unlike most civilian PAs the majority of military PAs have received previous medical training in their roles as health care specialists, the equivalent of Australia's military medical assistants.

Military PA Training - United States

PA training for the military has spanned more than 30 years. At one time each branch of the military had their own PA program and when need eclipsed space they contracted with various civilian PA programs for seats. However, in the mid 1990s the military created an Interservice Physician Assistant Program (IPAP). IPAP is located at the Army Academy of Health Sciences, Army Medical Department Centre and School at Fort Sam Houston, Texas. Currently, the PA program awards a masters degree to all branches of the military (Army, Navy, Air Force, Coast Guard and National Guard) through The University of Nebraska Medical Centre.¹¹

Students admitted to IPAP are selected by a military board of their respective service. Prerequisites include 60 semester credits of transferable college credit prior to entry in the program. IPAP students complete their first year (Phase one) of didactic training at Fort Sam Houston, Texas. The second year (Phase two) of study involves 12 months of supervised clinical clerkships at military or affiliated medical facilities throughout the US. Students successfully completing the program are awarded a Master of Physician Assistant Studies degree by the University of Nebraska and their commission as a Second Lieutenant. The IPAP program is accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). The program accommodates over 65 students three times a year across all arms of the military. Following their two year training program, uniformed PAs are required to commit to a four year return of service obligation and are required to spend 10 years in rank to retire as a commissioned officer.

Captain James Jones, the Interservice Physician Assistant Program Manager at Fort Sam Houston, provided information and advice on military training and recruitment of PAs in the US Armed Forces. Colonel William Tozier, who was in theatre in the Middle East during the conference, expressed his interest and support in helping Australia with their endeavours to bring the PA profession to Australia, particularly in the military. Colonel Tozier will return from operations in July to assume the role of Director Interservice Physician Assistant Program.

Military PA Training – Canada

Canadian Forces have employed PA clinicians since 1984 and the Medical Service School is located at Base Borden in Ontario. This PA program was the first accredited by the Canadian Medical Association in 2004. The program is similar to the American IPAP program but differs in the second year. The PAs training is generalist in nature and modelled on medical school curriculum. The training program includes:

- Phase One: 51 weeks didactic training
- Phase Two: 49 weeks clinical rotations

In Canada the military PA students undertake much of their clinical training in civilian medical centres to obtain a broad exposure to all aspects of healthcare. Upon graduation the Canadian PA is made a Chief Warrant officer (or comparable rank). There are 130 uniformed PAs in the Canadian Forces, equally distributed between all three forces and the Special Forces. Currently these military PAs are employed in a variety of settings including six civilian hospitals throughout Canada, clinics, ships at sea and with deployed forces in Afghanistan and peace keeping forces in other countries. Canadian Forces PAs support supervising physicians with medical emergencies and everyday health care needs in various locations in Canada, including Ontario. They are considered generic and are assigned to operations regardless of the uniform – an Army PA might be assigned to a submarine or a Navy PA assigned to a battalion.

PA programs in Canada are accredited through the Canadian Medical Association conjoint accreditation process. Certification of the military PAs is now conducted through an off shoot of the Canadian Association of Physician Assistants (CAPA), the Council for Certification. CAPA conducts a national certification exam, which had its first exam session in 2006. However, other than Ontario and Manitoba, no other province officially recognizes PAs.

Major Dennis Hearn (Canada National Forces – Ottawa) and Chief Petty Officer Brian Lillie, from the program director of the Canadian Forces PA Program at Base Borden commented on how the Canada Forces were finding it difficult to fill all the students places at Base Borden each year. In various discussions both offered the ADF the opportunity to send some of their military medics to be trained as Physician Assistants at Base Borden and will welcome any further development on this. MAJ Hearn desired to be supportive in Australia's efforts to introduce the PA profession and offered to facilitate any request from CMVH to obtain a copy of the Canadian Forces PA Curriculum if required.

Both military PA programs prepare their graduates to be skilled in advanced trauma management, public health and sanitation, crisis management, and occupational medicine in addition to general medicine.¹²

5. INTERNATIONAL UPDATE

Each of the delegates to the international forum at the 2007 AAPA Conference was charged to bring information about the development of PA profession within their respective countries. Professor Robinson in her report on the 2006 AAPA Conference described how each of the international PA development activities has progressed and described the framework for PA standards and practice for each country. This report updates existing information on how these countries have further progressed.

Canada

Canada's publicly funded health care system is best described as an interlocking set of ten provincial and three territorial health insurance plans.¹³ Known to the Canadians as "Medicare", the system provides access to universal, comprehensive coverage for medically necessary hospital and physician services. All the plans share common features and basic standards of coverage. Services are administered and delivered by the provincial and territorial governments, and are provided free of charge. The provincial and territorial governments fund the health care services with assistance from the federal government.

The Manitoba Experience

Manitoba is the only province in Canada that licences PAs, and allows them to practice as "clinical assistants" – a generic term specifically used to cover PAs and international medical graduates (IMGs). This was enacted in 2001. PAs have been working in speciality positions in Manitoba in cardiac surgery, plastics, orthopaedics and neurosurgery. Development in the area of emergency rooms and oncology are underway. There are 7 licensed PAs working in Manitoba and they are also recruiting 16 new positions this year. Additionally they are going to change their legislation to recognize PAs as its own profession separate from the current Clinical Assistant designation.

In October 2003 the University of Manitoba (UM), Faculty of Medicine began providing clinical training sites to PA trainees from the Canadian Forces. The military curriculum was provided to UM in order for them to facilitate the development of a PA program. This program was upgraded by UM with obstetrics, paediatrics and geriatric training, as this is not included in the military curriculum. A feasibility study of the UM PA program was completed in November 2004 noting that four to five classes of PAs could be produced. The University is expecting to start its first PA program based on the military curriculum in 2008.

The Ontario Experience

At the AAPA Conference in May 2006, there was breaking news about Ontario Province putting in place enabling legislation for the demonstration projects. Overall HealthWorkforceOntario has done an amazing job at getting the pilot up and running and achieving the following results over the short period of a year. The Assistant Deputy Minister, Health Human Resources Strategy Division at Ministry of Health and Long Term Care (MOHLTC) in Ontario, Canada is Dr Joshua Tepper.

Dr. Tepper gave a presentation at the International Round Table Sessions during the conference. His presentation provided an overview of the introduction of the PA role to Ontario and the following information on how Ontario has progressed and introduced the PA concept is derived from his presentation.

In May 2006, the Ontario government launched a new Health Human Resources Strategy titled HealthForceOntario. The three aims of this new strategy included:

- make Ontario the “employer of choice” in health care;
- ensure the right number and mix of health care providers, when and where they needed; and
- establish new and expanded roles in areas of high need.

The PA is one of five new roles being introduced into Ontario’s public health care system. The new roles are designed to:

- join inter-professional health care teams to improve delivery of health care services; and
- to increase access to, and reduce wait time in high demand areas such as emergency care, surgical services and cancer care.

In spring 2006, the Ontario government began consultations with health professionals, employers, educators, regulators and other experts including the Canadian Forces and Manitoba University, the Canadian Association of Physician Assistants (CAPA) and medical, nursing and allied health staff at Ontario’s hospitals. In August 2006, six hospitals were selected to establish new Emergency Department care teams that included PAs, acute care nurse practitioners (NPs) and primary health care nurse practitioners. By March 2007, the team development was completed and five of six Emergency departments had PAs and NPs working on site. By May 2007 the sixth site had hired a NP and interim evaluation of all sites had been initiated.

A multi-stakeholder Physician Assistant Implementation Steering Committee (PAISC) was established to collaboratively guide the development, implementation and evaluation of all PA projects. The committee is co-chaired by a representative from the MOHLTC, a representative from the Ontario Medical Association and a NP. The membership to this committee includes:

- PA experts and educators from Canada and the US;
- representatives from partner organizations; and
- representatives from key stakeholders.

The PAISC meets monthly and uses subcommittees and working groups to research and design components of the project and ensure a balanced approach. The current activities underway through various subcommittees and working groups include:

- developing Ontario PA competencies,

- defining the PA scope and role definition,
- determining compensation,
- establishing educational programs,
- addressing liability issues,
- establishing evaluation,
- launching demonstration pilots in clinical settings,
- recruiting, and
- developing communications.

A critical first achievement for the HealthForceOntario initiative was defining competencies for a PAs to practice in Ontario in April 2007. The working groups adapted competency profiles and scope of practice statements for PAs articulated by the CAPA in its National Occupational Competency Profile (2006).

In the development of the competencies the working group was also informed by the Royal College of Physicians and Surgeons of Canada CanMEDS 2005 Framework, and PA competency profiles from Manitoba, US and Britain.

Guidelines for the PA Education program in Ontario were developed and included:

- a degree program
- accreditation through the Canadian Medical Association
- graduates must be eligible for national certification
- multiple points of entry with undergraduate degree, and work experience as important components in the selection process.
- curriculum should be consistent with Ontario Competency Profile
- initial class of 20 students in each class, with capacity to increase by 10 each year.

Two medical schools have been approved in principle to launch the PA programs and include:

- McMaster University in Hamilton
- University of Toronto Northern Ontario School of Medicine partnering with the Michener Institute for Applied Health Sciences

The start date is in 2008 and each institution will determine the program, delivery methods, and approach to clinical training and faculty development. Education programs will be evaluated by the number of graduates successfully completing the national certification as well as other process measures.

The Evaluation framework includes inputs, throughputs, outputs, evaluation questions and measures and data collection protocols. The demonstration pilots are in clinical settings and will be evaluated to determine the impact on quality and quantity of care (wait times and access to care), team and patients satisfactions and team retention and recruitment.

The goal of the demonstration pilots is to introduce PAs to the Ontario health care system through a wide variety of clinical settings and using a variety of employment models throughout the province. 25 out of 56 hospitals invited to apply for positions were selected including 7 small, 11 community and 6 teaching hospitals (one with two sites). Currently there are six emergency department pilots underway with more in general internal medicine, general and orthopaedic surgery and complex continuing care planned for the near future. There are over 60 PA positions available over a two year period. Seven Ontario Association of Community Health Centres will lead demonstration pilots in Community Health Centres (CHC). These CHC include family physicians, nurses and allied health professionals who focus on primary health care and health promotion for individuals. Also in discussion with the Ontario Medical Association is an initiative to lead demonstration pilots in which PAs are employed directly by physicians or a group of physicians in a Physician Employed Model.

Until it begins to produce enough “home grown” PAs, Ontario will recruit PAs with formal education from other jurisdictions. These include retired PAs from the Canadian Forces and PAs from Canada and the US who are eligible for Canadian PA certification. Recruitment activities include advertising with CAPA and the AAPA, direct marketing (letters to providers who have expressed interest) and participation in various conferences and seminars in the US and Canada.

HealthForceOntario is also undertaking a bold step to convert international medical graduates (IMGs) as PAs after a four-month education process. It was determined that the use of qualified IMGs had the potential to provide additional capacity for the demonstration projects. The rationale behind this was that there were more qualified IMGs in Ontario than medical residency positions and after comparing the competencies of PAs (articulated by CAPA) and the IMGs, they found that the IMGs had competencies at a comparable level to PAs. All IMGs considered for the PA initiative had successfully completed:

- The National Medical Exams (MCCQE1) required for all medical graduates; and
- The Ontario clinical examination for IMGs.

Over 800 IMGs who scored at the first year residency level or higher on the Ontario IMG Clinical Exam were invited to apply for the PA position. A standardised process was developed to invite and rank all IMG applicants for PA programs. 250 applications were received, with the top 85 candidates interviewed in May 2007 to assess clinical and behavioural appropriateness for practice in the PA role. A total of 56 candidates have been invited to hospital specific interviews. IMGs selected by the hospitals will be required to complete a comprehensive four-month integration program as a condition of employment in the PA role.

The four-month integration program (IP) will be administered by the evaluation centre for IMGs and other health providers and will include:

- 2 months didactic training,
- 2 months clinical at the site of employment,
- a focus on orientation to the Ontario health care system,
- orientation to the role of the PA,
- communication skills, and
- clinical and behavioural competencies.

Both components of the IP will have evaluative components. IMGs successful in the IP will begin clinical practice in the role of a PA in January 2008. Collaborative development of initiatives with partners and key stakeholders included:

- an overall communications strategy for the PA initiative,
- material specific to project activities including:
 - sample news releases to selected hospital sites,
 - patient/staff handouts with information about the PA role,
 - questions and answers to respond to queries from the public, prospective candidates, health professionals, hospitals and other key stakeholders,
- a “tool kit” for hospitals to assist with implementation of the PA role, and
- information to be posted on the HealthForceOntario website.

Dr Tepper described the successes of the Ontario initiative as:

- development of strong partnerships and collaborative relationships,
- support from the other health professions and experts in the field,
- the US PAs were well received and practicing in the Ontario pilots,
- completion of the PA competencies document,
- significant government investment in success of the PA initiative, and
- well established IMG assessment and integration process was adapted for the PA initiative based on PA competencies.

The challenges were described as:

- recruiting sufficient numbers of PAs to fill new PA positions,
- concerns raised around using IMGs as PAs,
- aggressive timelines and the resulting workload, and
- concerns from other professions about the introduction of a new and unregulated profession.

Scotland

At the 2006 AAPA Conference Scotland announced a series of demonstration projects and actively recruited American PAs for 20 positions. A total of 240 applications were accepted, 45 American PAs were interviewed, 20 were offered contracts and 12 PAs arrived together to work on a two-year contract. They are deployed in demonstration projects in the areas of family medicine, acute medicine and emergency medicine. Scotland is now eight months into their project, with a lot of time being spent on settling the foreigners into Scottish culture. Lieutenant Colonel Ricky Bhabutta and Dr Patricia O'Connor have been the principals in this effort. Dr Bhabutta is a doctor in the British Army and ‘on loan’ to the Scottish NHS for an extended period of time. He was the principal person in meeting American PAs while on duty in Kosovo and then meeting the PAs as part of the demonstration project in Birmingham, England.

Dr. Bhabutta believes it is only a matter of time before PAs are dispersed throughout the North Atlantic Treaty Organization countries. They described what worked well in the Scotland program including:

- Preparation of the workforce, the Health Department, the community and the US PAs themselves. This included media, local open days, leaflet bulletins, emails, teaching sessions and hospital and regional awareness campaigns. Much of the initial preparation was also geared towards addressing the ‘cultural’ differences.
- Central coordination and site selection by the Scottish Executive
- Partnership funding with central funding for evaluations, the recruitment process and awareness raising events
- Objective and structured interviews
- Relocation and induction using a specific relocation company allowed smooth transition into “Scottish life” for the US PAs. Induction included introduction to the cultural and social aspects of living in Scotland, introduction to the National Health System (NHS), adaptation to British medicine and to local programs.
- The University of the Highlands and Islands was commissioned to compile monthly evaluation reports on all sites. The US PAs provide input into the evaluations and the early impression is that this is a successful venture and will likely continue. The first formal report is due at the end of 2007.
- PA development days and opportunities for feedback into the project – The PA development days worked well by providing opportunities for open discussions of difficulties with the project, staff or supervisors. Presentations were provided by US PAs and it also gave the opportunity for PAs to meet up.

After consultations with the PAs and the supervisors a list of ‘things that could be done differently’ was created and included:

From the PAs:

- site visits by the PAs would allow them to get a better idea of what was expected of them in the relocation and demonstration process,
- lack of clarity of the job description provided a source of confusion and frustration for the American PAs
- timing of recruitment
- defining the supervisors role

From the supervisors and project managers:

- involving the clinicians in the recruitment process
- establishing the supervisor role
- reviewing the team role of the PAs in the context of major changes in the British medical training model
- positive media involvement

The biggest hurdle for Scotland was described as being the fact that the PA is an unregistered profession in the UK and that they were currently working under a delegation and referral clause. Further discussions about developing PAs for Scotland have centred on the cost, the necessity, and whether it would be more economical to recruit them from England and North America or start a university based program in Edinburgh.

England

The UK experience with PAs has been on three fronts. The first is the demonstration project, the second in building PA education capacity, and the third have been entrepreneurial doctors hiring PAs directly from the US to work on contract for a few years.

The Birmingham experience

In early 2002, the University of Birmingham Medical School was approached by a local primary care organisation representing several general practices, that already employed American PAs, to develop a local course to “grow their own” PAs. A steering group was created chaired by representatives from the Royal College of Physicians (RCP), the Royal College of General Practitioner (RCGP), the University of Birmingham (the higher education perspective), the Department of Health, and Skills for Health (a organisation developing competency specifications across the whole of health service), as well as doctors in training and patient representatives. It was decided that the PA equivalent in the UK would be called a Medical Care Practitioner (MCP). The National Competence and Curriculum Framework Steering Group, as it was called, was formally constituted in late 2004. The group was tasked with:

*‘...developing practical guidance for employers, higher educational institutions and potential students as to how the MCP role would work and how entry to the new profession might be managed’.*¹⁴

The Steering Group developed a framework, instead of a curriculum, in order to allow higher education institutions to design programs taking into account the local circumstances but still meeting the national criteria. This framework was detailed in a consultation document to be considered through public consultation in order to gain public trust and accountability for the new role.¹⁵ While this framework was being developed, the Department of Health commissioned the Health Services Management Centre at the University of Birmingham to evaluate the impact of the initiative to recruit US-trained PAs.¹⁶

Preliminary evidence now suggests that the introduction of the MCP role, based on the proven North American PA Model, may make a valuable contribution to clinical care in the NHS, and represents an effective strategy for increasing medical capacity without jeopardising quality.

Jim Parle, Professor of Primary Care and General Practice, University of Birmingham and Nick Ross, Director of Learning and Teaching at the University of Birmingham, School of Medicine gave an update on how the United Kingdom had progressed. The PA role in the United Kingdom is now employed in family medicine, accident and emergency departments, after hours at a hospital or as a ward presence. The advantages for the National Health System (NHS) are that there are shorter waiting times, stability in posts (as opposed to medical interns leaving after their rotations) and the maintenance of generic medical knowledge.

Birmingham University has received 40 new government funded places for medical student level study. This will require NHS supervision funding in order to “buy the doctors time”. The current position is that they are proposing to start in January 2008. It was determined that there was a requirement for a regional program out in the West Midlands region, with the following institutions being involved Warwick, Wolverhampton and Birmingham University. The intake of students will be science graduates with clinical experience being desirable but not essential. The program is designed to have two 46-week periods of study. In the first year there will be more theory than practical and in the second year there will be more practical than theory. Community based medicine rotations will encourage GPs to take in the students. The students will undergo their hospital experience in “down-time” to meet the local needs. This is also due to the large number of medical students in the hospitals undergoing their own rotations.

The program is designed around problem-based learning (PBL), which has a framework or scaffolding of lectures. In between these lectures students are given a problem to solve. There is also group and individual study, building on the knowledge learning in the framework. Expert sessions are delivered to provide the capacity to work around difficulty issues and provide extra support to the students. They aim to work through a trajectory of theory and simulation to supervised practice and on to independent practice. Students will undergo roughly 1500 hours of clinical experience with most of the time (roughly half) being spent in internal medicine and then family practice (roughly a quarter of the time).

Simulation will be widely used although there were moral and efficiency arguments for having simulation in the curriculum. Birmingham argued that they wanted to ensure that students are prepared for practice, noting the importance of first impressions. They will use simulation for communication, examination and procedure training, using expert patients and lay clinical educators. Current consensus is that the PA program at Birmingham will be a post-graduate qualification but not a Masters, most likely a post-graduate Diploma.

The faculty will be made up of the following staff:

- course leadership role will be a physician and a PA;
- teaching roles will be filled by new and established staff, PBL moderators (including PAs), discipline experts and simulation experts;
- PA students will be able to use PAs in clinical settings to model off; and
- external examiners and validation will be provided through experienced clinical PAs.

Future opportunities for England were described and included:

- to develop and provide institutional platforms for Masters programs and CPD for UK trained and based PAs,
- regulation of the profession,
- prescribing privileges,
- evaluation of the programs and graduated MCPs,
- to cooperate in the development of an international standard across the European Union with the potential for additional funding, and
- to meet the needs expressed by the local communities.

It is predicted that by 2010:

- there will be up to 200 students per annum training across the UK,
- there will be up to 300 UK trained MCPs practicing, and
- the separate roles will be united to form a single entry point for new entry graduates.

The Netherlands

The University of Amsterdam experience

Jaap Geerse, PA-S, provided an update on the PA program run out of the University of Amsterdam, where he is currently a PA student. The main reason for the University developing the PA program was the proportional lack of trained specialists in the coming years. This is thought to be due to the increased percentage of female specialists taking time off to start families and also the long periods required to train specialist practitioners. There are 4 true PA programs in the Netherlands, the fifth program run at Rotterdam University trains for clinical midwifery. This program is not defined as a true PA program by the Netherlands Association of Physician Assistants (NAPA) as the students do not get the full training program in general medicine. The Ministry of Health provides allowances to both the student (€2,000 compensation salary cost) and to the supervisor (€5,000 teacher compensation).

Entry requirements into the Dutch education programs include:

- a Bachelors degree in a healthcare profession e.g. nurse, physiotherapist or operating room assistant;
- at least two years experience in the profession; and
- a specialist (physician) who will act as supervisor on the job.

The University of Amsterdam PA program includes one day per week at University and four days per week on the job training under the supervision of your designated physician. The first cohort started their program in September 2005 and is due to graduate in September 2008. The program is structured around an integrated model with the supervising physician and university providing theory knowledge, the PA clerkship providing direct learning and hands on experience and the master-class and coaching allowing the development of professional and communication skills.

This program in the Netherlands differs from the US programs by:

- the use of the integrated model,
- the dual curriculum of university and on the job training concurrently,
- the PA student is considered to be a student and an employee, and
- there is a requirement for students to find a job prior to commencing their PA program.

As at May 2007 there were 136 PAs in training in the Netherlands with 45 fully graduated PAs. The Netherlands Government initiated a study in April 2007 to determine if this task transfer was going to be successful.

The Utrecht experience

Margaret Bakker, the Department Director and Program Chair at the Utrecht University PA program provided an update on their program. Utrecht is one of the largest Universities of Professional Education in the Netherlands. The Health Academy Utrecht, a joint venture in the field of graduate health education, had its first graduation class last year. Funding for this program is provided through the Ministry for Health Care and the Ministry of Education.

The program is similar to the University of Amsterdam program and has the following characteristics:

- there is a work-study program where students are learning and working at the same time,
- one day a week is spent at Hogeschool Utrecht,
- four days a week are spent with the specialist training on the job,
- there is a broad curriculum and students are employable after graduation only in their specialty area, and
- there is a competency based didactic component.

Margaret Bakker made mention that the success of the program was also due to the following:

- holding a preceptors meeting at Hogeschool Utrecht in order to facilitate supervision and train preceptors,
- good cooperation with the Utrecht Medical University and the Utrecht Medical Hospital, and
- a working group of physicians and students meeting four times a year.

6. IMPLICATIONS FOR AUSTRALIA

Implications for the civilian sector

The implications for PA development in Australia are extensive and continue to be debated by policy makers and thought leaders throughout. For Australia as a whole, with a country the size of the United States but a population approximating Texas (21 million) providing access to care is critical. Texas does this with six PA programs. Australians are widely dispersed but most of the care is centred in large urban areas. Initiating a PA service for Australians has the potential to assist a number of citizens, especially those in rural and remote areas who find it difficult to access medical services. For the Ambulance Officer and other allied health professionals a PA degree would afford an opportunity to move a career along or provide a new window of opportunity to broaden and advance their medical skills. Australia may best be served by a generalist approach and that middle-level providers working under medical delegation should act as doctor extenders, not doctor substitutes, to assist in expanding access to care and support sustainability.¹⁰ Important issues are to use PAs to assist overworked doctors and maintain critical services. No one has suggested PAs should be used to replace services provided by doctors with services provided by PAs with remotely supervising doctors.

Implications for the Australian Defence Force

For existing ADF military medical assistants, there are no avenues to integrate their skills into civilian life. Many medics have obtained extensive skills in combat and emergency medicine along with humanitarian aid through their daily work and in the operational environment. As medics progress in their career they have to choose to leave their clinical role for an administration role within Defence or to leave the ADF and pursue further study to gain civilian recognition in the medical or nursing field. For the junior medics the introduction of a PA role in the ADF would provide a clear career pathway which would allow them to continue to serve in the military knowing they could transfer into civilian life with a rich skill set should they choose to. For the senior enlisted medic it is an opportunity to remain in uniform and remain in a clinical role providing supervision to the junior medics as required.

As the civilian community moves to adopt mid-level delegated care health workers, such as physician assistants, the ADF is in a position to keep abreast with this change in workforce, and ensure that its medics are not left isolated from the new career pathways emerging. In the ADF, our medics are in a position to become graduates when a PA program commences in Australia. Their medical training and access to tertiary education programs through Centre for Military and Veteran's Health (CMVH), make the University of Queensland, in collaboration with CMVH and Centre for Health Innovations and Solutions (CHIS), the ideal platform to initiate a PA education project, which it is planning to do with a start date of 2009. The goal is to improve health care in the military and facilitate improve job satisfaction and positively influence recruitment and retention in the ADF.

Implementing a specialist PA rank within the Australian military would be a large policy change but may be one that can be initiated fairly easily as was the case in the American and Canadian forces. Long before there was national policy on PAs in either country the various military forces in each country saw the value of a PA in their midst and adopted one quickly. That they are now conjoint programs training a generic PA for almost any military role speaks highly of the utility of this strategy.

7. RECOMMENDATIONS

Australia has major shortages of medical staff which needs immediate attention. The introduction of the PA profession is one strategy that could be used to address this problem. These recommendations are made through the eyes of an Australian officer who is a health professional, a member of an academic oriented group of researchers and a consumer of healthcare.

7.1 Recommendation 1

CMVH and CHIS continue to approach Queensland Health and urge them to initiate a two year pilot program using US-trained PAs in the Queensland Health care system.

7.2 Recommendation 2

Should Queensland Health decline this pilot program then CMVH and CHIS should approach other states or organisations willing to participate, including the Australian Defence Force.

7.3 Recommendation 3

CMVH provide further updates of the introduction of the PA role in Australia at the Australian Military Medicine Association (AMMA) conference in Melbourne in October 2007.

7.4 Recommendation 4

The ADF consider training a select number of medics in the US or Canadian military PA programs. Training six Australian medics as PAs a year in Canada or the US might be an economic and useful strategy as Australia continues to grapple with this workforce debate. The value to this recommendation is the report there is capacity at the Canadian program in Ontario. The program manager of IPAP has also indicated that they would be willing to look at offering the ADF positions in their program.

7.5 Recommendation 5

The ADF accept the invitation to visit the IPAP program in San Antonio and the PA program at Base Borden in Ontario. This will permit first hand observation of the program rigor and utility. Touring the military bases will allow the ADF to appreciate the role of the PA in the garrison and on deployment. Colonel William Tozier has communicated through our University of Queensland consultant, Roderick S. Hooker, PhD, that he would like to explore an invitation for Australia to visit the IPAP in San Antonio. During his time in Iraq he met with Australian doctors to discuss the idea of training Australian medics as PAs in the US. A reciprocal invitation for Colonel Tozier to visit Australia to provide a series of presentations is also recommended.

7.6 Recommendation 6

CMVH and CHIS send a contingent of educators and medical personnel to the PAEA meeting in Tucson, Arizona in October 2007. The objective would be to learn about the education and deployment of PAs and some of the innovations occurring in PA education.

7.7 Recommendation 7

A representative from Australia presents a military and civilian update of the effort to introduce the PA profession into Australia at the international round table sessions at the AAPA Conference in San Antonio, Texas in May 2008. This will continue to allow networking opportunities to assist Australia in its endeavour to introduce the PA profession. Applications to present at next years conference are due to the AAPA international representative by September 2007.

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