Evaluation of the Queensland Physician’s Assistant Pilot

- Final Report

brisbane mt Isa cooktown

August 2010
URBIS STAFF RESPONSIBLE FOR THIS REPORT:

Director       Linda Kurti, Susan Rudland
Associate Director Rebecca Wilkinson
Consultant     Catherine Zhang
Expert Adviser Professor Dawn DeWitt
Group Support  Gaye Fitzgerald, Jill Yeomans
Job Code        KAJ53208

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Urbis Social Planning and Social Research team has received ISO 20252 certification, the new international quality standard for Market and Social Research, for the provision of social policy research and evaluation, social planning, community consultation, market and communications research.
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Executive Summary

The Queensland Physician’s Assistant Pilot was conducted between May 2009 and May 2010 to test the potential suitability of the role within the Queensland health system. The Physician Assistant (PA) role was developed in the United States in the 1960s and provides a medically-trained clinician who works under the supervision of a qualified medical practitioner. Today, there are around 68,000 PAs in the United States who work in all health settings, from small rural health clinic to highly specialised tertiary hospital departments. Defining characteristics of the PA role are its generalist medical training, and the consequent role flexibility to adapt to the requirements of the local clinical environment.

Urbis was contracted by Queensland Health to provide an independent evaluation of the PA Pilot to assess the following:

- the contribution value of the Physician’s Assistant role to the capacity of the health care team to address patient needs
- the organisational and legislative features which facilitated or inhibited the implementation and effectiveness of the Physician’s Assistant role
- the fit and appropriateness of the Physician’s Assistant role within Queensland Health
- the requirements for the sustainability and spread of the model beyond the pilot sites.

The scope of the Pilot was small, and included one urban tertiary site, one remote tertiary hospital site, one remote multipurpose health service site, and one general practice clinic with local hospital. The Pilot employed five US-trained PAs for 12 months at four separate Pilot sites:

- the Interventional Cardiology Unit of Princess Alexandra Hospital, Brisbane (1 PA)
- Cooktown Multi-Purpose Health Service, Cooktown (2 PAs)
- the Emergency Department of Mt Isa Hospital, Mt Isa (originally 2 PAs, then 1 PA)
- a GP clinic and local hospital at Normanton (1 PA, previously at Mt Isa).

Overall, the evaluation has found that once the initial implementation phase had passed, most doctors and nurses worked well with the PAs. At each site the PAs, with their supervisors, developed job descriptions which were suitable to the demands of the local clinical environment, complementing the work of the medical staff and working collaboratively with the healthcare team. PAs were delegated medical responsibilities in line with their experience, assessing, diagnosing and treating within a primary care setting, and providing clinical coordination of scheduling, preparation and discharge of surgical patients within the Interventional Cardiology Unit. At each site, medical supervisors indicated that the quality of care was excellent, that the PA had contributed to improving service delivery, and that the ability to delegate tasks appropriately had assisted with workload pressures. It was reported that the PA role had facilitated medical teaching by allowing doctors to balance their teaching responsibilities with clinical responsibilities. Most doctors, nurses and other health providers who worked with the PAs reported that the PAs had made a positive contribution to the team and had provided excellent care.

Two main concerns were expressed by doctors and nurses regarding the role and its potential impact for the future. One was a concern that PAs might impact negatively on medical training, either by reducing junior doctor opportunities to learn on the job or by increasing competition by providing a cohort of newly-trained PAs who would also be seeking supervision. During the Pilot these concerns diminished once doctors actually worked with PAs and came to understand the role. Larger questions regarding the capacity of the system to provide training, with or without the establishment of the PA role, were outside the scope of the Pilot. However, some participants did see clear benefits of the PA role in facilitating medical training, either by providing another clinician from which students could learn, or by freeing the supervising doctor to spend more time teaching.

The second concern was that establishing the PA role may reduce opportunities for nurse practitioners and other expanded nursing roles. The Pilot provided no evidence that this would be the case; however, the PAs did not work with nurse practitioners in any site except at Cooktown where the nurse
practitioner was employed in community health, so the potential for competition between the two roles was untested.

There were clear limitations with the Pilot and its ability to provide concrete evidence as to the potential contribution of the PA role to the wider Queensland health system. The number of PAs and of sites were both small. The evaluation focussed on qualitative data provided through observation and interviews due to the emphasis in the evaluation brief on understanding the organisational and team implications of introducing the PA role. In addition, little quantifiable system data was available.

Nevertheless, the Pilot demonstrated that within the participating sites the PAs integrated well with their clinical teams, created distinct roles which complemented the existing nursing and medical roles, and enhanced service delivery. There were no quality or safety concerns identified during the Pilot.

However, the Pilot PAs were all extremely competent professionals with over ten years of experience, and it is likely that newly-trained PAs would perform at a more junior level initially.

What can be said about the PA Pilot is as follows:

- at all sites where they were deployed, the PAs were considered to have contributed to improved system functioning through appropriate task delegation and streamlined patient processes
- clinicians who had worked with the PAs – both nurses and doctors – voiced a balanced support for the role tempered with concerns to see a continued commitment to the existing health workforce, particularly junior doctors and nurse practitioners
- the PA role was considered acceptable to the doctors who were in contact with the Pilot, and by the end of the Pilot all doctors who were interviewed considered that the role had potential to assist medical workforce pressures through task delegation under supervision
- despite initial nursing concerns, the majority of those nurses who worked with the PAs reported that they could see a potential benefit to the health system from utilising PAs appropriately as additional mid-level clinicians, as long as opportunities for the nursing profession were not compromised
- patients were satisfied with the care they received from PAs.

The lessons of the PA Pilot are supported by the international literature which suggests that the PA role’s flexibility is its strength. Because it is adaptable, the PA role has the potential to suit a number of diverse clinical environments, as long as the twin obligations of medical supervision and role clarification are met. The latter is particularly essential to ensure that the PA is able to develop a collaborative working relationship with the members of the health care team.

Further research is required, following the 12-month PA Pilot. Such research may include the new cohort of Australian-trained PAs which will shortly emerge from the University of Queensland, to explore the introduction of newly-trained PAs and their impact on the health care team, as well as further deployment of US-trained PAs. Other useful research would be a detailed comparison, including cost-benefit analysis, of similar mid-level provider positions, such as the RIPRN and nurse practitioner roles.

The findings of the evaluation suggest that a number of structural, regulatory and legislative considerations also would need to be addressed before the PA role is firmly established. These include:

- a funding model, taking into account parity with other health professionals, infrastructure needs, supervision requirements, and professional development needs
- a regulatory framework including training and accreditation, continuing medical education, and licensing
- legislative requirements, particularly regarding the Medical Benefits Scheme and the Pharmaceutical Benefits Scheme
- needs assessment to determine appropriate deployment and ensure adequate supervision
- information and training for supervisors and clinical teams to understand the potential of the PA role
- consultation with peak professional bodies and stakeholders to ensure the role is aligned with existing health professionals.
1 Introduction

1.1 Background

This report presents the results of the evaluation of a 12-month trial that introduced the role of Physician’s Assistant\(^1\) to the Queensland health system. The Physician’s Assistant Pilot was the result of a number of years of discussion and exploration by clinicians, health administrators and managers, to assess whether the Physician’s Assistant (PA) role would provide an additional avenue for increasing the health workforce in Queensland and across Australia. The role itself is contested within Australia, with both medical and nursing representative bodies expressing reservations about whether the PA role would displace or compete with existing clinical roles, either based on concerns that the role would reduce opportunities for junior doctor training (AMSA 2007), or that roles such as the nurse practitioner are themselves still becoming established in the health system (QNU 2008). However, the growth of the PA role in the United States and its introduction into a number of other countries suggested potential for the PA role to contribute to reducing medical workforce shortages.

The Queensland Physician’s Assistant Pilot was announced by the then Queensland Health Minister, the Hon. Stephen Robertson, in August 2008 and launched in May 2009. Several doctors and health service managers travelled to the United States in order to see for themselves how the role worked in a variety of clinical settings to inform the development of the PA roles. Assistance with information and recruitment was provided by the MEDEX Physician Assistant Training Program at the University of Washington.

The PA role was originally developed in the United States of America (US) in the 1960s. In recent decades, the role has been introduced into a number of other countries and has evolved to meet the local requirements of health systems. While a primary interest for the Queensland Pilot was to assess the potential of the role for rural and remote locations, there was also a separate and concurrent pilot program in South Australia that examined the potential for the PA role in urban tertiary hospital settings.

The PA Pilot in Queensland has taken place within a national context of health reform which has focussed on improving service capacity to meet the 21st-century demands of a growing and ageing society. Recent policy documents and debates have called for new and innovative responses to the changing needs for health service delivery, including expanding roles such as nurse practitioners, physician’s assistants, community pharmacy and other allied health professionals (National Health and Hospitals Reform Commission 2009). The experience of those who participated in the Queensland PA Pilot provide additional lessons which can inform workforce planning within Queensland Health as well as contribute to the national debate.

1.1.1 Definition

The American Academy of Physician Assistants defines PAs as follows.

*PAs are health professionals licensed or, in the case of those employed by the federal government, credentialed, to practice medicine with physician supervision. PAs are qualified by graduation from an accredited PA educational program and/or certification by the National Commission on Certification of PAs, Within the physician/PA relationship, PAs exert autonomy in medical decision-making and provide a broad range of diagnostic and therapeutic services, The clinical role of PAs includes primary and specialty care in medical and surgical practice settings in rural and urban areas. PA practice is centred on patient care, and may include educational, research and administrative activities. (AAPA 2000)*

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\(^1\) The term ‘physician’ has different meanings in the United States and in Australia. In the United States the term ‘physician’ is used interchangeably with ‘doctor’. In Australia, the term ‘physician’ applies only to those who have undertaken specialist medical training. In order to maintain the links with the original role, including scope of practice, clinical qualifications and quality of care required, and acknowledging the semantic differences of how the term is applied, the title Physician’s Assistant was employed in Queensland and is used throughout this report to refer to the role.
The PA role was created in the United States in the 1960s. The impetus for the new role was two-fold: to support doctors in areas where there was a shortage of medical staff; and to provide opportunities for members of the medical corps returning from military service who had substantial experience but lacked formal medical qualifications (Hutchinson et al 2001, Jones 2007). The role of the PA was originally conceived to enhance the medical workforce by providing additional clinicians who could attend to patients who were less acute or whose presentation was more immediately obvious and treatable, freeing the medical practitioner to concentrate on more complex medical interventions. Educational programs were developed to train returned servicemen and prepare them to work under the supervision of a physician. This training was of a generalist nature, ensuring that PAs had a broad general medical training, allowing them flexibility to develop their role as most appropriate within a variety of clinical environments. This flexibility has become a defining characteristic of the PA role.

There has been considerable growth in this field in the last four decades. Today over 68,000 PAs are employed in America and 145 accredited PA programs have been established. The PA role has become an integrated part of the US health care system (Nassa & Bethel 2009), with a recognised professional body and legal and regulatory frameworks. The PA role is well-established in many urban tertiary hospitals, and is not limited to rural and remote areas.

1.1.2 Scope of practice

All PAs work under the supervision of a medical practitioner who has overall responsibility for clinical outcomes. The nature of supervision varies according to geography and setting. In the US, the law requires that the medical practice of the PA is provided and assured by the medical supervisor. However, this requirement does not necessarily require the supervisor to be physically present, and supervision may be conducted by telecommunication (Jolly 2008).

PAs and their supervisors have an ‘interdependent’ relationship, described as ‘delegated practice rather than independent practice’ (Jones 2007). Within this relationship, doctors and PAs work as a functional team (Hooker and Cawley 2003). PAs negotiate what has been labelled ‘performance autonomy’ (Schneller 1978). Within the doctor - PA relationship, PAs ‘exercise autonomy in medical decision making and practice’ (Jones 2007). This means that PAs have ‘a degree of professional independence, within a relationship of trust and mutual respect they share with their supervising doctors’ (Jolly 2008).

PAs perform, under supervision, many of the tasks previously only the prerogative of doctors, in compliance with conditions attached to their registration (Jolly 2008). In general the role of a PA includes:

- conducting physical exams
- diagnosing and treating illnesses
- ordering and interpreting tests
- providing education on preventive health care
- assisting in or completing surgery
- undertaking education and research
- prescribing (Jones 2007).

As a result of their generalist training, PAs are highly versatile, and practice across a range of medical settings. This includes primary care settings, where they work in general practice, paediatrics and women’s health; and hospital settings where they work in emergency and other specialties such as surgery, neurosurgery, orthopaedics, pathology, dermatology, endocrinology, urology, obstetrics-gynaecology, ophthalmology, gastroenterology and rheumatology\(^2\). In more rural or remote settings, PAs can practice as a sole medical provider, with supervision given by the medical supervisor over the telephone or via video.

\(^2\) Details are available from the National Commission on Certification of PAs http://www.nccpa.net/PAC/Competencies_home.aspx, (accessed 26 October 2007)
In the US, PAs have full prescribing rights and have the autonomy to order tests as determined by their supervisor and within the scope of their capacities within the clinical environment in which they work. In other countries, such as England and Scotland, PAs do not have the authority to prescribe medicines and are unable to order tests (Farmer et al 2009, Caldow & Bond 2008).

PAs are now employed in Canada, the Netherlands, South Africa, Taiwan, Scotland and England. A pilot program utilising US-trained PAs was established in South Australia concurrently with the Queensland Pilot. In each instance, the PA role was trialled in order to address local workforce challenges, and the role has proven flexible in order to best fit the culture and health system of the particular country. A trial of the PA role in New Zealand has also recently been announced for 2010, with US-trained PAs to be placed in the Department of Surgery at Middlemore Hospital (RACS 2010).

1.1.3 Training, licensing, accreditation and registration

According to the Physician Assistant Education Association (PAEA 2009), as of October 2009 there were 145 accredited PA programs in the US. Over half of the programs are either 24 or 27 months in length. The shortest program is 18 months and the longest is 36 months, with the average program length 26.7 months. The training program is described as having a didactic and clinical curriculum, resembling a condensed version of medical school and covering all aspects of medicine (Jones 2007).

Didactic coursework includes anatomy and physiology, pharmacology, patient evaluation, clinical medicine, preventive medicine, ethics, diversity and other health-related courses. The clinical year (of 2000 hours) includes rotations in family medicine, women’s health, paediatrics, internal medicine, surgery, emergency medicine, orthopaedics and other specialty areas. During clinical work the PA is considered to be undertaking an ‘internship’ (PAEA 2009).

Almost all PA programs offer masters degrees. Around 15% offer bachelor degrees only. Recommendations from the PA Clinical Doctorate Summit in 2009 (an independent body comprising nearly 50 individuals from within and outside the PA profession) were that the PA profession endorses the master’s degree as the entry-level and terminal degree for the profession, and that as of 2012 the degree conferred upon completion of a PA program is a singular degree entitled the Master of Physician Assistant Practice (MPAP)\(^3\).

PA students are not required to have a particular or individual medical ‘sponsor’ during their clinical training. However, a PA student must practice under the direct supervision of a doctor and/or in most states, responsibility for supervision may be extended to a PA. Technically students are still practicing under the supervision of a doctor since all PAs function in a model of delegation. Requirements vary by state laws and practice acts.

Applicants to US PA programs are required to have a tertiary qualification or require prerequisite courses in basic sciences, and some prior healthcare experience. In a recent survey of schools that provide PA training, universities indicated that general chemistry was required by the majority of the programs, followed by physiology, anatomy, microbiology, and biology. Math, biochemistry, and genetics were required by less than half of the programs. Less than half of responding programs required their applicants to have prior health care experience, while about 13% did not require any health care experience. The remaining programs ‘preferred’, but did not require, their applicants to have prior health care experience (PAEA 2009).

PAs receive a ‘generalist’ training, and on completion of the course are able to work across a wide variety of areas. Specialisation within the PA role is possible, and there has been an increasing trend towards specialisation over the last decade or so (Jones 2007). To specialise, a PA has to seek a

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\(^3\) Further recommendations were that:
- The PA profession opposes the entry-level doctorate for physician assistants.
- The PA profession supports colleges and universities offering postgraduate, non-profession-specific clinical doctorates (e.g., doctorate of medical science, doctorate of health science, or other non-PA-specific clinical doctorates) as options available to PAs.
- The PA profession should explore the development of a model for advanced standing for PAs who desire to become physicians (sometimes called a “bridge program”).
doctor who is willing to employ and train them in a speciality area, which can range from primary care settings to neurosurgery. Thus, PAs can change their area of specialisation easily and do not currently need any extra tertiary level training, but this is contingent on finding a doctor who will employ them.

There are four national PA organisations—the American Academy of Physician Assistants (AAPA), the Accreditation Review Commission on Education for the Physician Assistants (ARC-PA), National Commission on Certification of PAs (NCCPA), and PAEA—which have collaborated to define PA competencies in an attempt to address public demand for higher quality and greater accountability in health care. Based on the Accreditation Council for Graduation Medical Education list of general competencies for medical residents, the PA competencies are medical knowledge, interpersonal and communication skills, patient care, professionalism, practice based learning and improvement, and system-based practice (Jones 2009). In 2007, there were no set standard exists for PAs practicing in specialty areas (Jones 2009).

All PAs:
- must be nationally certified to be licensed (individual states within the US grant licenses to PAs – all 50 states allow prescription delegation)
- must graduate from an accredited PA program
- have 100 hours of continuing medical education every 2 years
- undergo re-certification examination in primary care every 6 years (Jones 2007).

In the US, there has been an increase in the number of positions advertised as ‘mid-level clinicians’ (MLC) or ‘mid-level providers’ (MLP). This is a term not currently used in Australia. Outside of Australia, MLPs are understood to have a level of clinical training which allows them to undertake some medical procedures and prescribe medications (Lane 2008: 767). In the US, the MLP includes PAs and nurse practitioners (Lane 2008). One of the questions often raised within this Pilot is the relationship of the PA role to that of the nurse practitioner role, the latter having only been introduced into Australia in 2000. The relationship between nursing and PA roles is discussed further in sections 1.2.3 and 5.3.

1.2 Australian health workforce challenges

Australia, like many other countries around the world, faces a health workforce shortage particularly in the medical and nursing professions. Factors common to Australia as well as Canada, the United Kingdom, the United States and other countries, include an increasing demand for certain specialities, a maldistribution of medical practitioners across geographical areas, an ageing workforce, and doctors no longer willing or able to work as many hours per week as doctors may have previously worked throughout their careers (O’Connor and Hooker 2007: 346-7).

Workforce shortages and issues of maldistribution are not limited to medical practitioners. The Report on the audit of health workforce in rural and regional Australia (Department of Health and Ageing 2008) provides a comprehensive overview of workforce demographics relating to doctors, nurses, dentists, physiotherapists, and other practitioners in rural and regional Australia. In particular, the audit notes that rural communities are disadvantaged in their access to health services because of the maldistribution of all health professions except nursing. This has clear repercussions for the health and well-being of Australians living in regional, rural and remote communities (Productivity Commission, 2005).

1.2.1 The Queensland health workforce

The Productivity Commission’s (2005) audit identified some particular characteristics of the workforce challenges facing Queensland.
- Queensland has fewer medical practitioners per head of population than most other jurisdictions: 227 full-time equivalent medical practitioners per 100,000 people in Queensland, compared with a high of 393 per 100,000 in the ACT and a national average 287 per 100,000. There is a particular shortage of specialists in Queensland; Queensland has an above average number of general practitioners in private practice per population.
Within remote Australia, doctor shortages are more evident in Queensland, Western Australia and the Northern Territory than in other states.

There are fewer nurses (per head of population) in Queensland and NSW than in other states; there is a particular shortage in remote Queensland.

Meanwhile, Queensland’s population is growing at a faster rate and by a larger margin than any other state in Australia. Queensland is also one of only two states where its regional population grew by a greater margin than its capital city between 2001 and 2006.

Finally, general practitioners in Queensland are more likely to work as visiting medical officers in regional hospitals than GPs in other states. This means that ‘Medicare data [for Queensland GPs] underestimates the volume of health services provided to a community overall by rural and remote GPs compared to their urban counterparts’ (Australian Government Department of Health and Ageing 2008:5).

An additional characteristic of the Queensland health workforce is the high proportion of overseas trained doctors working in rural areas – reported to be 50% of the 1081 doctors working in RRMA 4-7 (Health Workforce Queensland, 2008).

Figure 1 presents key health workforce data, stratified by Australian Standard Geographical Classification Remoteness Area, as documented in the Report on the Audit of Health Workforce in Rural and Regional Australia (DoHA, 2008). The figures presented are proportional to population, and include the proportional numbers of nurses, GPs and the broader group of medical workers. It can be seen that the number of GPs (full time work equivalent) and medical workers (headcount) per 100,000 population declines steadily as remoteness increases. In contrast, the number of nurses (headcount) per 100,000 population is fairly evenly distributed across Remoteness Area, although as noted above the number is less per population than found in other states. The Australian Nursing Federation notes that:

*Nurses form the largest and most evenly distributed health profession group working in rural and remote communities reflecting their vital role across these areas. However, there is a recognised shortage and high turnover of appropriately skilled nurses.* (Australian Nursing Federation submission to the Australian Government audit of the shortage of health professionals in rural and remote Australia, February 2009)

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4 Note that data for GPs and nurses is expressed as full-time workload equivalent per 100,000 population, while data for medical workers is expressed as a headcount per 100,000 population.

5 Medical worker as classified in ABS – includes medical practitioners, generalist medical practitioners, anaesthetists, internal medicine specialists, surgeons, other medical practitioners.
1.2.2 Queensland medical workforce challenges

Rural Workforce Agencies in each state and territory collect and report a specified set of data on rural and remote general practice workforce in RRMA 4 through to 7. This is done on a yearly basis, and allows for effective monitoring of current workforce distributions and for workforce modelling.

Health Workforce Queensland has published its Minimum Data Set for 2009, providing up to date numbers of medical practitioners in RRMA 4 to 7, as well as details on demographics, skills, experience and medical practice. Table 1 below presents the numbers of medical practitioners by type and by RRMA, for 2008 and 2009. The total number of practitioners has increased by 39, from 1130 in 2008 to 1169 in 2009, an increase of 3.5%. During the same time period the population of Queensland increased by 2.7% (from 4,308,570 in 2008 to 4,425,103 in 2009). This is useful contextual information on the spread of the medical workforce headcount across rural and remote Queensland. However, this data is not presented as FWE or relative to population (such as per 100,000 population), so it does not provide a picture of where significant gaps in medical provision may be located.

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6 Rural, Remote and Metropolitan Areas Classification based on population figures and STA boundaries. RRMA 1 Capital city; RRMA 2 Other metropolitan centre; RRMA 3 Large rural centre; RRMA 4 Small rural centre; RRMA 5 Other rural area; RRMA 6 Remote centre; RRMA 7 Other remote area
INTRODUCTION

Table 1 – Queensland Type of Medical Practitioner by RRMA 4 to 7 - as at 30 November 2008 and 30 November 2009

<table>
<thead>
<tr>
<th>Employment type*</th>
<th>RRMA 4</th>
<th>RRMA 5</th>
<th>RRMA 6</th>
<th>RRMA A7</th>
<th>Total</th>
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<td>34</td>
<td>6</td>
<td>11</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>414</td>
<td>526</td>
<td>97</td>
<td>93</td>
<td>1130</td>
</tr>
<tr>
<td>Qld population*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,308,570</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment type*</th>
<th>RRMA 4</th>
<th>RRMA 5</th>
<th>RRMA 6</th>
<th>RRMA A7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>335</td>
<td>423</td>
<td>58</td>
<td>20</td>
<td>836</td>
</tr>
<tr>
<td>GP Academic</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>GP Company</td>
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<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MORPP</td>
<td>0</td>
<td>19</td>
<td>3</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>MS</td>
<td>2</td>
<td>11</td>
<td>2</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>MSRPP</td>
<td>1</td>
<td>24</td>
<td>3</td>
<td>21</td>
<td>49</td>
</tr>
<tr>
<td>RFDS</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>RMO</td>
<td>52</td>
<td>13</td>
<td>15</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>SMO</td>
<td>31</td>
<td>42</td>
<td>10</td>
<td>13</td>
<td>96</td>
</tr>
<tr>
<td>Total</td>
<td>421</td>
<td>539</td>
<td>105</td>
<td>104</td>
<td>1169</td>
</tr>
<tr>
<td>Qld population*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,425,103</td>
</tr>
</tbody>
</table>


An additional challenge to workforce planning in rural and remote Queensland is the high level of health workforce turnover. As noted in the 2009 Minimum Data Set, 211 out of 1130 medical practitioners ceased working in RRMA 4 to 7 between the period of 30 November 2008 and 30 November 2009.

In response to these challenges, a range of strategies have been implemented at state and national levels. Of particular relevance to the PA Pilot is the long-term strategy of increasing the number of university places for medical students.

Medical training capacity issues

While it is expected that increasing university places for medical students will result in long-term positive workforce impacts, in the immediate future there will be added demands on the health workforce and health system with regard to the provision of education and training for medical students and junior

* ACCHS: Aboriginal Community Controlled Health Service
MORPP: Medical Officer with Right of Private Practice
MSRPP: Medical Superintendent with Right of Private Practice
MS: Medical Superintendent
RMO: Resident Medical Officer (includes JHO, SHO, PHO etc.)
SMO: Senior Medical Officer
General Practitioner: General Practitioner
GP/Academic: GP where main responsibilities are teaching/administration
GP/Company: GP where main employment is with Defence Forces or company
doctors as they move through the training system. At the 2008 international WONCA\(^5\) conference, Health Workforce Queensland discussed the health system impacts of the increase in medical students. In particular, national projections were made as to the shortfall in 1\(^{st}\) year advanced training posts for medical graduates over the next five years.

Figure 2 presents two sets of data: Health Workforce Queensland’s (2008) projected shortfall in 1\(^{st}\) year advanced training posts; and the total number of actual and projected national (domestic and international) medical graduates (MDANZ 2009). It should be noted that the size of training post shortfall may be overestimated, as data subsequently published on medical graduates for 2007 and 2008, was lower than the estimated figures used in the calculations\(^9\). However, it is evident that the figures indicate a shortfall.

Medical training capacity challenges are also reflected in the National Health Workforce Taskforce projections of the number of additional medical clinical placement days required for medical students up to 2013 (NHWT, 2008). The NHWT report states that relative to the 2005 academic year, by the 2013 academic year, it is estimated that about 632,700 additional medical clinical placement days will be required per annum (Figure 3).\(^{10}\).

\(^5\)WONCA stands for the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians.

\(^9\) The difference between predicted domestic medical graduates and actual graduates and is 38 in 2007 and 82 in 2008.

\(^{10}\) Details on the assumptions for these calculations are outlined in the NHWT report.
In Queensland, projections of medical graduates to 2012 indicate that training capacity will be a challenge at a similar scale. For example, the number of domestic and international medical graduates is predicted to increase by 255% between 2003 and 2012 (AMSA 2008). Predicted graduate numbers are presented in Figure 4.

In November 2009, the AMA released its Federal Budget Submission 2010-2011. It calls for an expansion in the number of pre-vocational and specialist medical training places and training infrastructure, including:

- guaranteed intern places
- commensurate increases in prevocational training places
- better access by junior doctors to protected teaching time in public hospitals

Source: Medical Deans of Australia and New Zealand (http://www.medicaldeans.org.au/pdf/Table4.pdf)
increasing the number of first year vocational training places.

In February 2010, a communiqué from the 2010 Australian Health Ministers’ Conference announced the Ministers’ commitment to plan jointly through Health Workforce Australia for the quality clinical undergraduate training for future health professionals. The number of clinical training places will be boosted through a large increase in funding – from $67,478,617 in 2009-2010 to $140,249,305 in 2010-2011. Ministers have also agreed to maintain 2.1 million clinical training days as a baseline. In Queensland, the committed funding increase is from $13,486,781 to $28,031,275, and the committed baseline of clinical training days is 378,453\(^1\).

Even with the commitment to increased numbers of medical students, it is recognised that it will take time for the increased workforce to be fully trained. The health workforce of the future will require a number of complementary workforce strategies, including changing understanding of current roles and the task delegation between various health professionals. One of the arguments made in favour of the PA role is that it will take some of the less complex tasks from overburdened doctors, freeing them to concentrate on more complex medical challenges, including overseeing team care. While mid-level providers such as nurse practitioners or physician’s assistants have been used in other countries for many years in this delegated role, the issues around ‘task substitution’ have been noted to be a concern to the medical profession (Yong 2006). However ‘there is no evidence to suggest that task substitution will compromise health outcomes. Indeed, as has been shown in the American and British cases, there is evidence to suggest the opposite’ (Jolly 2008).

1.2.3 Queensland nursing workforce challenges

Queensland’s nursing workforce challenges are greater than most other states and territories. The Queensland Nursing Council reports that as at 30 June 2009 there were 59,893 licensed nurses and midwives in Queensland – an increase of 5.2 per cent compared to 2007-08 (QNC 2009). This compares favourably to Queensland population growth figures; an increase of 2.7% from 2008 (4,308,570) to 2009 (4,425,103).

However, figures sourced from the 2007 AIHW Nursing and Midwifery Labour Force Survey show that in 2007, Queensland had the third lowest ratio of full time nurses per 100,000 population (FTE rate). The Queensland FTE ratio was 1,121 compared to the national ratio of 1,189 (Figure 2).

Table 2 – FTE ratio per 100,000 population, based on a 35-hour standard working week, by states and territories, 2007\(^12\)

<table>
<thead>
<tr>
<th></th>
<th>NSW</th>
<th>Vic</th>
<th>Qld</th>
<th>WA</th>
<th>SA</th>
<th>Tas</th>
<th>ACT</th>
<th>NT</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurses</td>
<td>919</td>
<td>1,031</td>
<td>947</td>
<td>839</td>
<td>1,071</td>
<td>1,178</td>
<td>1,004</td>
<td>1,381</td>
<td>967</td>
</tr>
<tr>
<td>Enrolled nurses</td>
<td>173</td>
<td>298</td>
<td>173</td>
<td>217</td>
<td>325</td>
<td>185</td>
<td>195</td>
<td>174</td>
<td>221</td>
</tr>
<tr>
<td>Total nurses</td>
<td>1,093</td>
<td>1,331</td>
<td>1,121</td>
<td>1,057</td>
<td>1,396</td>
<td>1,362</td>
<td>1,201</td>
<td>1,556</td>
<td>1,189</td>
</tr>
</tbody>
</table>

This trend is consistent across most Remoteness Areas\(^13\). Table 3 compares the ratio of employed registered and enrolled nurses by state and territory and Remoteness Area. The rate of employed registered and enrolled nurses in 2007 was lower in Queensland (in proportion to its population) than other states and territories, in all but very ‘remote’ areas.

---


\(^{13}\) Australian Standard Geographical Classification Remoteness Area
### Table 3 – Employed registered and enrolled nurses: FTE (35 hour week) nurses per 100,000 population, by State and Territory and Remoteness Area, 2007

<table>
<thead>
<tr>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very Remote</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>1,039</td>
<td>1,126</td>
<td>935</td>
<td>1,006</td>
<td>1,603</td>
</tr>
<tr>
<td>Vic</td>
<td>1,197</td>
<td>1,423</td>
<td>1,523</td>
<td>2,221</td>
<td>.</td>
</tr>
<tr>
<td>Qld</td>
<td>1,031</td>
<td>1,128</td>
<td>1,093</td>
<td>1,107</td>
<td>1,137</td>
</tr>
<tr>
<td>SA</td>
<td>1,430</td>
<td>803</td>
<td>1,229</td>
<td>1,286</td>
<td>1,184</td>
</tr>
<tr>
<td>WA</td>
<td>1,045</td>
<td>841</td>
<td>1,073</td>
<td>1,073</td>
<td>1,138</td>
</tr>
<tr>
<td>Tas</td>
<td>.</td>
<td>1,577</td>
<td>800</td>
<td>731</td>
<td>1,780</td>
</tr>
<tr>
<td>NT</td>
<td>.</td>
<td>.</td>
<td>1,509</td>
<td>1,732</td>
<td>1,088</td>
</tr>
<tr>
<td>ACT</td>
<td>1,195</td>
<td>4,179</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Australia</td>
<td>1,116</td>
<td>1,202</td>
<td>1,124</td>
<td>1,211</td>
<td>1,149</td>
</tr>
</tbody>
</table>

Table 4 presents the FTE ratio of employed registered and enrolled nurses in Australia, by state and territory over time, showing that in Queensland, the ratio of nurse to population has improved over time, with improvements mainly occurring between 2005 to 2007. The gap between Queensland and the national average has slightly shrunk, but remains at 68 FTE per 100,000.

### Table 4 – Employed registered and enrolled nurses, FTE per 100,000 population based on a 35-hour standard working week, by States and Territories, 1995 to 2007

<table>
<thead>
<tr>
<th>Employed registered and enrolled nurses</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003(a)</th>
<th>2004(a)</th>
<th>2005(a)</th>
<th>2007(a, b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW</td>
<td>999</td>
<td>1,006</td>
<td>1,009</td>
<td>992</td>
<td>1,059</td>
<td>1,101</td>
<td>1,058</td>
<td>1,093</td>
</tr>
<tr>
<td>Vic(c)</td>
<td>1,226</td>
<td>1,131</td>
<td>1,107</td>
<td>1,146</td>
<td>1,232</td>
<td>1,244</td>
<td>1,242</td>
<td>1,331</td>
</tr>
<tr>
<td>Qld</td>
<td>982</td>
<td>982</td>
<td>960</td>
<td>968</td>
<td>974</td>
<td>994</td>
<td>991</td>
<td>1,121</td>
</tr>
<tr>
<td>WA(d)</td>
<td>1,118</td>
<td>1,056</td>
<td>1,086</td>
<td>935</td>
<td>964</td>
<td>1,067</td>
<td>1,032</td>
<td>1,057</td>
</tr>
<tr>
<td>SA</td>
<td>1,205</td>
<td>1,168</td>
<td>1,049</td>
<td>1,095</td>
<td>1,282</td>
<td>1,367</td>
<td>1,415</td>
<td>1,396</td>
</tr>
</tbody>
</table>


15 (a) From 2003 total hours worked per week also includes hours worked that were unpaid.

(b) State and territory estimates for 2007 should be treated with caution due to low response rates in some jurisdictions, particularly Northern Territory (28.7%). See the Explanatory notes for further information.

(c) Estimates for Victoria for 2005 are derived from responses to the 2006 AIHW Nursing and Midwifery Labour Force Survey, weighted to 2005 registration and enrolment benchmark figures

(d) Estimates for Western Australia for 2003 and 2005 should be treated with caution due to the low response rates (19.0 and 26.9%) in the 2003 and 2005 surveys.

*(e) Estimates for the Northern Territory for 2005 are not separately published due to the very low response rate to the survey in that jurisdiction (13.7%).*

(f) The 2005 total for Australia includes estimates for the Northern Territory and Western Australia. Due to the relative size of the nursing and midwifery workforces in these jurisdictions, any biases in their estimates are unlikely to have a significant affect on the accuracy of the national figure.

In Queensland, 8,864 nurses (18%) worked in the clinical area of medical nursing and 8,333 nurses (17%) worked in critical care/emergency. The next largest group worked in surgical nursing, (n=5,259, 11%) (AIHW, 2007).

Projecting forward, the Australian Health Workforce Advisory Committee reports that 78% of nurses will need to be replaced between 2003 and 2012, yet nursing careers are declining in popularity (Buerhaus, Staiger & Auerback 2000).

Expanded nursing roles

There are some commonalities between the PA role and expanded nursing roles. This is particularly evident when comparing the PA role with the nurse practitioner (NP) but also, more specifically to Queensland, the Rural and Isolated Practice Registered Nurse (RIPRN). The similarity between PA and NP roles is reflected in the number of research studies in the USA that compare the nature of work between PAs and NPs, and consider the differential impact of the two roles (O’Connor & Hooker 2007).

The NP role originated in the USA, and has been adopted in a number of OECD countries such as the United Kingdom (UK), Canada, New Zealand and Australia. A NP is an experienced registered nurse, educated to function autonomously and collaboratively in an expanded clinical role. NPs are required to complete a post graduate level degree. Some of the tasks that NPs perform are beyond the usual scope of nursing practice and, as with the PA role, are tasks previously undertaken only by doctors. Examples include detailed health assessment and diagnosis, ordering diagnostic investigations, referring patients to other health care professionals, prescribing medications and other treatments/therapies (Bundaberg Hospital Commission of Inquiry 2005). Scope of practice varies by country. In Australia, for example, NP prescribing rights and Medicare provider numbers have only recently been announced in the 2009-2010 Federal Budget. In some countries, legislation changes have been necessary to create the NP role.

The key distinction between a PA and a NP is their educational training. NPs train within a nursing model and must first be a registered nurse, while PAs train within the medical model and may come from a range of backgrounds. Nurse practitioners are more likely to train in a speciality within a particular setting, while PAs training as generalists and can practice in a variety of settings (Farmer et al 2009). Nurse practitioners are considered to be practicing ‘nursing’, and PAs are considered to be practicing ‘medicine’, thus reflecting a different philosophical model of practice even though many of the activities they undertake may be the same.

O’Connor and Hooker (2007) note that comparative studies of PA and NP roles in the USA demonstrate little difference between the two, particularly when both roles work within the delegated practice model under medical officers. An analysis of 1995-1999 National Ambulatory Medical Care Surveys (NAMCS) undertaken by Hooker and McCaig (2001), found that PAs and NPs practice in similar ways to each other with similar patients.

In the UK, reports vary regarding the extent of commonalities and differences between the two roles. Comparisons are also complicated by the inconsistent meaning and usage of the nurse practitioner title (Sibbald, Launrt & Reeves 2006). Indeed, one of the benefits of the PA role identified in the final report of the Evaluation of PAs to National Health Service Scotland (Farmer et al 2009), was the much clearer
definition and description of the PA role within competency frameworks as compared to the NP role. In some instances the two roles have been perceived to be in competition. For example, the British Association of Advanced Nursing Practice Educators (AANPE) was one of several groups that argued that the work of PAs was already undertaken by NPs, and that as a result PAs could ‘destabilise and undermine the extensive work in progress by other professions in establishing new advanced clinical roles’ (Response to DOH MCP consultation, 8 May, 2007, cited in Jolly 2008).

Proponents of the PA model argue that the PA role should not be seen as competing with the NP role, and that the two can complement each other (O’Connor & Hooker, 2007; Cawley and Hooker 2003; O’Connor 2009). However, there appears to be little discussion of how this works in practice.

A uniquely Australian nursing model is that of the RIPRN (Rural and Isolated Practice Registered Nurse). Nurses who have gained the RIPRN qualification have an expanded scope of practice which allows them to undertake more clinical tasks, usually undertaken by a doctor, with distance supervision. This includes limited prescribing and diagnostic activities, guided by a clearly defined set of protocols and guidelines. RIPRN nurses are specifically prepared for the challenges of Australian remote area health care delivery with an expanded scope of practice and autonomous practice under (often remote) medical supervision; however, their protocol-driven assessment distinguishes them from PAs who are trained in medical diagnosis.

1.2.4 Strategies to address workforce challenges

Queensland Health’s Strategic Plan 2007-2012 (http://www.health.qld.gov.au/about_qhealth/strategic.asp, accessed June 2010) articulates the key challenges facing the Queensland health system in the next ten years. These challenges include:

- changing the community’s focus to the prevention of illness and maintenance of good health
- managing the complex process of care delivery ensuring the right services in the right places for the right type of patients
- building public confidence in the healthcare system
- providing a seamless transition for patients as they move across healthcare providers and settings
- achieving a collective and coordinated response across multiple levels and complexities of government
- attracting and retaining skilled professionals, especially for specialist services and in rural and remote areas
- ageing building and information & communication technology infrastructure affecting people and information security and accessibility
- establishing meaningful and measurable outcome indicators for complex health and community services
- managing the growing demand for services within the economic and financial environment.

Queensland Health has introduced a number of strategies to respond to these challenges, including increasing the number of nurse practitioner positions, undertaking a number of campaigns to encourage nurses to return to the workforce, increasing the number of medical training places, developing health promotion campaigns, and enhancing availability of information for the general public. A recent media release noted that Queensland had employed 2,500 additional doctors since 2005 and increased the numbers of junior doctor positions from 250 to 556 (Lucas 2010).

Strategies implemented at state, territory and national levels that aim to address health workforce shortages and issues of maldistribution in Australia, include:

- increasing the number of university places for medical students, aligned with the development of the Rural Clinical School Program
• encouraging doctors to practice in rural and remote locations by providing incentives to practice in rural locations, and providing scholarships for medical students that bond them to rural practice upon graduation

• importing medical graduates from overseas

• encouraging doctors to remain in practice, and nurses to return to the workforce

• developing alternative models for service delivery in remote areas, such as the use of remote area nurses, fly-in fly-out models for specialist care, and the growth of culturally appropriate Aboriginal medical services.

In Queensland, there is evidence of positive impacts as a result of these strategies (O’Connor & Hooker 2007). However, the workforce challenges will remain for some time, given that:

• increasing the number of medical graduates is a long-term strategy and it will take a number of years before an increased, fully-trained medical workforce is evident

• attracting overseas or interstate doctors provides a short-term solution, but ultimately will result only in redistribution of the workforce shortage, rather than provide a sustainable Australia-wide and worldwide solution.

Advocates of the PA role argue that it will attract a new cohort of health professionals, rather than luring existing health professionals away from their current careers as nurses, paramedics, or other allied health providers. However, evidence to support this claim is inconclusive. In an analysis of demographic and employment characteristics of PAs and NPs employed in the USA, Hooker and Berlin (2001) argued that the backgrounds of NPs and PAs differ. However, 30% of PAs had a nursing background, which suggests considerable overlap.

Some opponents of the PA role have expressed concern that the PA role will attract nurses away from the nurse practitioner role, which can only attract candidates from the existing pool of nurses and so has a more narrow scope for recruitment. Hutchinson et al (2001) noted that while former military personnel continue to apply, it is more common for PA applicants to have made an early decision to follow the PA pathway rather than attend medical school, in pursuit of lifestyle factors such as a more defined schedule and fewer hours on call. Whether nurses would be attracted to the PA role rather than the nurse practitioner role for these or other reasons is unclear.

1.3 The Queensland Pilot

Five US-trained and qualified PAs were recruited from the US by Queensland Health, and employed for 12 months to participate in the Pilot. Each PA was qualified from an accredited training program, had maintained their professional certification, and had a minimum of six years’ experience (in reality, all PAs had over 10 years of experience).

The Pilot placed PAs within four sites across Queensland:

• the Interventional Cardiology Unit of Princess Alexandra Hospital, Brisbane (1 PA)

• Cooktown Multi-Purpose Health Service, Cooktown (2 PAs)

• the Emergency Department of Mt Isa Hospital, Mt Isa (originally 2 PAs, then 1 PA)

• a GP clinic and local hospital at Normanton (1 PA, previously at Mt Isa).

The PAs at Cooktown also attended the clinic at the community of Wujal Wujal on a weekly basis; the PAs who worked at Normanton also attended the clinic at Karumba on a weekly basis.

1.4 Scope of this report

The evaluation occurred concurrently with the Pilot, and the evaluation team has reported findings at quarterly intervals.
1.4.1 The first progress report

The first report, presented three months into the Pilot, explored the implementation of the Pilot, and early perceptions of the PA role. Early findings of the evaluation suggested that there was considerable uncertainty regarding the place of the PA role within the Queensland health system and that, while substantial efforts had been made to communicate clearly regarding the Pilot, there were still many staff who did not know about the PA role or who did not understand the Pilot was about. Nurses, in particular, expressed concerns regarding the impact of the PA role on their workloads as well as on the promotion of the nurse practitioner or RIPRN roles.

1.4.2 The second progress report

The second report, presented at the six-month point of the Pilot, provided further detail regarding the tasks undertaken by the PAs and the ways in which the PAs had integrated into their clinical environments. In general, clinical staff who had worked with the PAs were impressed with the quality of care and the clinical knowledge that PAs brought to the team. A large majority of staff considered the PAs to be making a positive contribution to their teams. The majority of nurses, in particular, found the PAs to be beneficial and positive team members; this represented a change in perspective from the beginning of the Pilot.

At this stage, concerns were expressed (primarily by doctors) regarding the potential impact of the PA role on the training opportunities for medical graduates. As noted previously, the health system faces a shortage in the availability of training places and of medical training supervisors. Many doctors were concerned that employing PAs would reduce the opportunities for medical training. They were also concerned that introducing the PA role would increase the competition for training places by creating a cohort of PA students who would also require training places. Nurses expressed concern about how the PA role might impact on opportunities for nursing advancement and opportunities.

1.4.3 The third progress report

The third progress report, presented in March 2010, explored questions that were raised after the second report, regarding the impact of the PA role and its potential integration into the Queensland health system. These included the organisational and operational issues highlighted by the Pilot, a consideration of the contribution of the PA role to the Queensland health system, particularly with regard to safety and quality, and PA ‘cultural fit’. The third report introduced six quality domains developed by the US Institute of Medicine, as a theoretical framework to analyse the contribution of the PA role to Queensland Health.

1.4.4 This final report

This final report includes a summation of the three previous reports, specifically addresses the changes in understanding and perspective which have occurred during the year, and provides an overall analysis of the outcomes of the Pilot. Many of the participants whose words are included in the report were interviewed two or three times during the course of the year, so the report provides an opportunity to tell the story of the changing experiences of those who worked with the PAs. This report seeks to provide insight into the experiences of PAs, doctors, nurses, administrative and other staff, and patients, as they worked together to integrate the PA role into a new clinical environment.

This report is structured as follows:

- Chapter 1 provides an introduction
- Chapter 2 describes the evaluation methodology.
- Chapter 3 reports on the establishment and induction phases of the Pilot.
- Chapter 4 explores the contribution of the PA role to the Queensland health system
- Chapter 5 examines the organisational and operational implications of the role.
Chapter 6 discusses the sustainability and appropriateness of the role in the Australian context
Chapter 7 provides a concluding discussion.
2 Methodology

2.1 Overview

Urbis was contracted by Queensland Health before the Pilot began to undertake a concurrent evaluation. There were four key areas of evaluation:

- the contribution value of the Physician’s Assistant role to the capacity of the health care team to address patient needs
- the organisational and legislative features which facilitated or inhibited the implementation and effectiveness of the Physician’s Assistant role
- the fit and appropriateness of the Physician's Assistant role within Queensland Health
- the requirements for the sustainability and spread of the model beyond the pilot sites.

The evaluation has used a number of methodological techniques to explore these issues, including analysis of existing relevant literature and review of documentation, fieldwork at the three sites, interviews and focus groups, surveys, and analysis of service activity and scope of practice. The overall evaluation approach is illustrated in the diagram below.
Figure 5 – Evaluation approach

A = Service data (throughput, LOS, waiting times etc) for February-March 2009, February-March 2010, August-September 2008, August-September 2009 (retrospective)
B = Scope of practice data, sampled monthly throughout
C = PA, medical supervisor, and QA committee reports
An evaluation framework was developed in April 2009, as were research tools including a series of interview guides, a patient survey, and a staff survey. These were submitted to the Human Research Ethics Committee at the Prince Charles Hospital. Ethics approval was received on 11th May 2009.

There was regular interaction between the evaluation team and the PAs throughout the Pilot, through emails, telephone calls, and site visits. A meeting of all PAs was held in Brisbane in February 2010 and one member of the evaluation team met together with all 5 PAs at this time. A meeting of the medical supervisors from all sites was also held in February 2010 and a group interview was conducted to explore themes and issues emerging from the Pilot.

2.1.1 Site-specific research

Pre-pilot surveys were disseminated to staff at each site in June 2009. The purpose of this survey was to ascertain staff perceptions of the role and the Pilot early in the process. Fifty-nine surveys were completed from the three sites. A post-pilot survey was disseminated again to staff in May 2010, and 40 responses were received.

Field research visits to the sites were undertaken at three points during the year: July 2009, November 2009, and April/May 2010. Field visits to Mt Isa and Cooktown each took place over several days, with the evaluator spending extended periods at the Pilot location. The November and May visits to Mt Isa also included a visit to Normanton and Karumba. Due to the nature of the environment at PAH and the proximity to the Urbis office in Brisbane, the site visits at PAH were conducted as short visits over a series of days, with the evaluator attending the hospital for several hours at a time, depending upon the availability of staff on different rosters.

At each site, consultations took place with:
- administrative staff
- senior management
- heads of departments
- medical superintendents
- directors of nursing
- physician’s assistants
- senior and junior medical staff
- senior and junior nursing staff, including nurse practitioners
- community health and allied health practitioners.

Fieldwork notes and interview notes were transcribed and saved in a template designed from the interview guide. These were analysed and summarised within sites and across the Pilot. Due to the small number of sites and confidentiality requirements, results from the qualitative data are not presented in a site-specific manner within this document but are reported at an aggregate level.

2.1.2 Refinements to the methodology

In response to the evolving project, some changes to the methodology occurred over the course of the Pilot. For instance, although patient surveys originally were planned for the time of the first field visit in July 2009, it was determined that it was in fact too early in the Pilot to be asking patients for their views. The level of confusion about the role within the team, and the time required for the role of the PA to become clear at each particular site, suggested that it would also be difficult for patients to be clear about the practitioner they had seen and the distinction between their role and that of another clinical team member.

However, there appeared to be a point about six months into the Pilot at which PAs and other team members at all sites had established working routines. Subsequently, all three sites were asked to
encourage patients to complete a patient survey. The approach to this varied at each site. Sites were supplied with surveys, consent forms, and stamped, self-addressed envelopes. In some cases PAs gave the survey to patients directly; at other times surveys were given out by reception staff, or were left available for patients at the reception desk. In one case, surveys were sent to a random selection of patients with a covering letter and reply paid envelope, inviting patients to send feedback direct to the evaluation team. During the site visits in November 2009, the evaluator at each site interviewed patients who attended the clinic on that day. In all, ninety-four patient surveys were returned to the research team. The findings of the patient survey are discussed later in this report.

From the beginning of the Pilot, the PAs were required to complete scope of practice charts which provided information on each patient they saw, the result of the encounter, whether a prescription was written or tests were ordered, and related actions. This was an onerous task and, after six months, data saturation was reached. Substantial differences in PA activities and data recording made the data difficult to compare. While the information allowed us to describe what the PAs did, it did not provide detail on the quality or depth of the encounter with patients, or for that matter with other clinical staff who might also have been involved. With that in mind, the PAs were asked to keep a journal for the second half of the Pilot, in which they recorded more subjective reflections on their tasks, activities, role and relationships within the clinical team. The PAs were provided with a number of questions to assist in framing their reflections, and journal entries were forwarded to the research team at intervals. Due to the small number of PAs, the distinctiveness of each site, and the need to protect confidentiality, the journals are not quoted directly in this document. However, they provided an additional insight into the experience of the Pilot PAs, and have informed the discussion contained in this report.

2.2 Data analysis

The evaluation data included the following:

- interview notes from over 190 interviews with more than 120 individuals
- 94 patient surveys
- 99 staff surveys (59 pre-pilot, 40 post-pilot)
- supervisor reports
- PA scope of practice reports (May – November 2009)
- PA journals (December 2009 – May 2010).

Interview notes were recorded by the researcher and typed into a template designed for the project. Notes were coded and a thematic analysis conducted. As three site visits were conducted over the course of the year, interview notes were compared over time for changes in perception and experience. Emerging themes were analysed and compared across sites, and a comparison was also made to survey responses.

Staff and patient survey responses were transcribed into SPSS and analysed with results translated into an Excel spreadsheet. Due to the small number of surveys from any one site the responses are primarily reported at an aggregate level.

Supervisor reports, PA scope of practice reports, and any other relevant data made available by the sites was analysed for comparisons across sites and also for any significant incidents or events. The PA journal data, which was not extensive, was used to provide context to each site and the experiences of the PAs.

2.2.1 Data limitations

There were difficulties in gaining access to statistical data on waiting times, length of stay, throughput, and other system indicators which may have, albeit imperfectly, demonstrated some influence of the PA role on patient care. We recognise that the potential for system-level data to indicate a significant impact of the five PAs on health service indicators is extremely limited. Nevertheless, anecdotal reports have indicated some effect of the PAs' presence on waiting times and other aspects of the patient and
clinician experience. Where this has been available, this information has been included in the following report.

Due to the staff turnover at each site, many of the staff who completed the pre-pilot survey were no longer at the site when the post-pilot survey was distributed. In addition, Normanton and Wujal Wujal staff were not included in the pre-pilot survey as the PAs had not yet been deployed there. Therefore, the two surveys do not provide a matched sample. However, they do provide a snapshot into people’s perceptions at the beginning and the end of the Pilot.

Similarly, staff who were interviewed during the first site visits in July 2009 were not necessarily the same staff who were interviewed at the final site visits in May 2010. For those who remained throughout the Pilot, it has been possible to document change attitudes, concerns or perceptions in the course of the year’s research. For others, it has been interesting to note their response to joining a team which included a PA. Some of the responses during the year provide insight into the changing culture within the site environment – whether suspicion or support for the PA role – and it has been possible to note whether people came into the site with preconceived knowledge or experience, or whether they were influenced by the views of others who had been at the site throughout the Pilot.

It should also be noted that, although Mt Isa and Cooktown both have large Aboriginal populations attending the hospital or health service, very few Aboriginal or Torres Strait Islander patients completed the survey (10/94). The research team recognised that a paper survey would in most cases not be an appropriate method for seeking Aboriginal or Torres Strait Islander views. Despite attempts to work with an appropriate Aboriginal liaison officer or staff member in gaining the views of Aboriginal or Torres Strait Islander patients, this was not successful. Patient perspectives, as understood through survey responses or through anecdotal reports, have been included in the report where relevant.

The extent to which the experiences of people in a small number of sites involving five new clinicians, can determine the value and contribution of the PA role to the larger Queensland health system, is limited. This Pilot provides a series of snapshots demonstrating the impact of the PA role within specific clinical environments. Several key lessons may be drawn from these snapshots, which can assist Queensland Health in its consideration of the future of the PA role. It is fair to say, however, that the results of the Pilot are inconclusive on many levels. Pilot findings should be read as indicating the need for further research and demonstration of the PA role within Queensland Health.
3 Pilot establishment and organisation

3.1 Recruitment processes and planning

It was generally recognised by interview respondents that Queensland Health had put significant time, care and resources in planning for the Pilot. This included full-day planning workshops with a range of key stakeholders and representatives from sites, presentations to the staff at each site, the production of detailed documentation outlining the planned approach and roles, and the involvement of key medical officers from each site in the recruitment and interview process. At one site nursing staff were also involved in scoping key service gaps, outlining a proposed PA role to address these gaps, and developing questions for candidate interviews. This position was not ultimately filled for the Pilot, however, despite the planning work which had occurred, necessitating some further communication to respond to disappointment expressed by those involved.

The planning and design stage of the process - establishing the parameters of the Pilot, developing the employment and contractual requirements, and recruiting participants - was said to be thorough and extensive. However, recruiting took longer than anticipated, and the Pilot could not recruit the desired number of PAs (originally it was hoped there would be ten PAs at five Pilot sites). It was noted that the global financial crisis had impacted upon recruitment, with some potential candidates expressing concern about leaving a secure position to make a short-term international move in an uncertain economic climate. The negative impact of the global financial crisis on currency exchange rates also reportedly discouraged candidates from proceeding. This resulted in changes to the anticipated start date of the PAs at the sites, and the number of sites themselves, so that the Pilot ultimately included five PAs deployed at three sites.

The recruitment process for the Pilot was rigorous. Participants were specifically recruited for their demonstrated experience and resilience in new situations. Consequently, participating PAs demonstrated clinical confidence, skills, and personality traits which enabled them to acclimatise quickly and to respond well to the challenges of demonstrating the advantages of a new role in an unfamiliar health system and culture.

3.2 Pilot commencement

3.2.1 Communication and understanding of the PA role

A brochure and flyer about the Pilot were circulated throughout the Pilot sites and extensive information about the Pilot was available on the Queensland Health website. Some of the sites provided information sessions to senior medical staff.

A number of respondents felt that greater consideration could have been given to the introduction of the Pilot to staff at each of the sites. The importance of leadership in the early stages of the Pilot, in terms of communicating the aims of the project, its potential, its impact, etc., was noted. While communication between Queensland Health and senior staff at the sites was considered to be good, ensuring that rotating general clinical and other staff were well-informed was an ongoing and difficult task. Early comments by nurses in particular reflected a perception that they were not well informed about the Pilot, its purpose, and its potential impact on their work.

In the early months there was a level of general confusion and lack of knowledge about the intentions of the Pilot, who the PAs were, and their function. This was further complicated by nurses and doctors having different views and ideas about the role of a PA, and by the turnover of medical and nursing staff moving through the sites. A number of the clinical staff indicated that, in retrospect, it would have been helpful to have been provided with a detailed overview of the PA role in the USA and about the potential role in the Australian context, on an ongoing basis.
At the beginning it was a little unclear until [the PA] got out her contract and showed us what it said. Communication is needed to all staff, not just doctors. Nurses need to know how the role fits in, what’s legal for them to do.

It was generally felt that varying levels of knowledge about the Pilot reflected the demanding nature of work in the health care environment, where staff are very busy and often ‘time poor’. The high turnover of medical staff and nursing staff also had an impact on effective communication of any kind in hospitals. The importance of early and frequent communication was reiterated by some respondents, simply because staff turnover. Medical and nursing teams included medical practitioners on permanent contracts, registrars and junior doctors who rotated through the location for varying lengths of time, medical students, nursing students, registered nurses on permanent contracts, agency nurses, nurse practitioners and/or community health nurses who were not always based in the ward or department. In addition there were pharmacy, allied health, and other practitioners who came into contact with the PAs. Ensuring that each of these was fully informed was clearly a difficult task.

The introduction of a new and previously unknown role into the Australian health care system raised questions about models of care, and the extent to which the PA role could be incorporated into the prevailing system. Levels of communication and discussion varied, with some staff reporting they were well informed, and others feeling they were not informed. This theme also emerged in the pre-and post-pilot surveys, with some noting inadequate communication was a barrier to adjusting to working with the PA.

3.2.2 Expectations

Participants had a range of expectations about the PA Pilot and role. These varied according to people’s own role, the nature and level of their involvement with the Pilot, and their understanding of a pilot process.

Medical supervisors who had previous experience of PAs in the USA and who were intimately engaged in planning, design and recruitment, had consistent expectations. ‘They are marshalls, process people – over there it’s about being the right person at the right time in the right place’. Supervisors expected the role to be necessarily developmental and defined over time according to the context, identified needs and individual capacity.

Doctors, particularly doctors in training, had less clear expectations and were, not surprisingly, uncertain as to how the PA role may impact on their own work and opportunities. As one registered medical officer (RMO) indicated at the time, ‘there were initially some teething problems working through people’s roles. I was new to the district and new to the job and new to the supervisory role – it was a lot to take in.’ There were initial attempts to place the PA within the medical hierarchy – at the level of a junior doctor, at the level of an RMO – but most doctors who we interviewed adopted an open mind and waited to see how the role developed.

Nursing expectations were perhaps less defined than the medical profession, as they appeared to be less familiar with the role and less clear about the Pilot. In the early months of the Pilot the primary response was uncertainty. While some respondents expressed a view that any assistance with the work was potentially positive, others had considerable concerns regarding the impact on their workload, which was already felt to be heavy. The potential for an additional medical position to generate extra work for the nursing staff was a concern expressed by a number of nurses.

The PAs expected to ‘hit the ground running.’ The PA role in the USA is ‘all about efficiency, facilitating and enhancing the process’, but the Australian system is different, with less emphasis on the financial drivers of efficiency. Most respondents acknowledged that it would take time to understand how best the role could be implemented within the Australian context. The PAs, some of whom had introduced the role into clinical environments in the USA, were prepared for the uncertainty of the early stage of the process while expecting that they would still need to perform at their normal level of operation.
3.2.3 PA induction

Four of the five PAs attended a week-long induction in Brisbane in early May, before they entered their Pilot sites. The induction program included information regarding prescribing and the use of medications in Australia, the Australian health system, the Queensland context, and cultural and social considerations. The fifth PA was unable to attend the induction and joined the Pilot several weeks after the other PAs. She received an induction program over a period of days after she had entered the Pilot site at PAH.

Some challenges were only identified once a PA entered the Pilot site. For example, laboratory values are different in Australia and many medications have different names and doses. The PAs felt this made them slower and less efficient than usual, although they were philosophical about the process, with one observing “it's just like learning a new language, you just have to get used to it”. The induction process provided a half-day seminar on the formulary used in Queensland. It was felt that more time in being exposed to medication practices and also to laboratory measurements at the very beginning would have been helpful.

PA ‘champions’

All sites had PA ‘champions’, usually (but not only) the primary medical supervisors, who had been to the USA and were familiar with the PA role.

*The success of the Pilot has been due to [the medical supervisor]. [The medical supervisor] has done such good work, is so committed to this that others had to fall in line.* (PA)

However, the extent to which the PAs were welcomed and orientated to the sites once they had arrived, was variable. Most often, the PAs reported that they “had to learn on the job”. Similar issues were raised at each site regarding the effectiveness of the orientation for PAs and for other team members. For the most part, this had to do with the communication and general knowledge of the PA role and the Pilot amongst site staff. However, some was guided or influenced by leaders within the team who expressed strong feelings, either for or against the Pilot.

The PAs experienced general frustrations regarding the differences between the US and Australian health systems. This appeared to primarily relate to the relationship between PAs, nurses and doctors regarding task delegation. As a new role in Australia, the tasks of the PA were initially unclear, particularly to nursing staff. For the medical staff, there was an initial period of observation allowing a PA to demonstrate their level of knowledge, after which the scope of practice was further defined. It took some time for all team members – nurses, doctors, and PAs – to understand which tasks could best be delegated or shared. The extent to which local champions assisted people to understand the PA role was influential in the team acceptance of the Pilot PAs.

Team communication

Shortly after the Pilot began, several steps were taken to improve people's understanding of the role. At some sites informal meetings were held so that the PAs could explain their role and answer questions, and team members could simply talk and get to know each other. Regular and ongoing communication from Queensland Health and from the medical supervisors was intended to help people to understand the PA role and the purpose of the Pilot.

*The nurses did not seem to know much about the PAs either professionally or personally – there have been some attempts to try and resolve this – but there still seems to be a major gap in the more junior nurses’ minds about what the pilot is about, who the PAs are and what they can do.* (nurse)

By about three months into the Pilot, staff became more comfortable with the PAs' position in the clinical team. Some nurses also reported that having a long-term medical member of the staff was very positive, in an environment of such high staff turnover.

*One of the benefits of the pilot is the fact that you have committed ongoing employees in a smaller hospital setting that allow continuity of service, as medical officers come and go with training.* (nurse)
Turnover of staff may have been one reason for some of the mixed feedback from nursing staff in the early stages of the Pilot. While some uncertainty was due to the way in which the Pilot was introduced to nurses, the high turnover of staff, particularly nursing staff, meant that new staff didn’t necessarily receive the same information about the Pilot as those who participated in the first introductory meetings.

_There was no preparation at all, no information on what a PA does in the USA, what their skills are - people had no idea. the distinction between the NP and PA role is still not resolved, however, [there are] no longer concerns from nurses. [The PA role is] not taking away from their role – in fact they are benefiting from it._ (nurse)

_Most of the nurses did not know about the PAs at all, they found out about the pilot directly from the PAs themselves._ (nurse)

These early fears were largely resolved over time. At PAH, after the initial stage, issues of role clarity and communication were dealt with by the development of a clear job description, and protocols and role delineation agreed with key nursing and other staff. From that point, team roles reportedly operated in a complementary and coordinated fashion.

The rapid acclimatisation of the PAs to their new roles was a reflection of the resilience and experience of the particular PAs recruited to this Pilot. All the PAs were perceived to be very self reliant, enthusiastic, practical and professional. The importance of personal skills and attributes was consistently noted throughout, including post-pilot survey responses.

_You [need to] pick the right body – with the disposition to be a team player and collaborate sideways and up and down. That is the most important attribute. [You need to be] smart enough to do the work, but teamwork and collaboration is critical. That may be different in different contexts – someone out there [in the regions] may need to be more self sufficient and resilient in that way._ (medical supervisor)

### 3.2.4 PA roles at Pilot sites

The work practices of the five PAs differed across sites.

At Princess Alexandra Hospital, the PA worked in the Cardiology Department, a tertiary referral unit offering cardiac services including electrophysiology, invasive intervention and echocardiography. The PA role was located within the Heart Rhythm Group, a sub-unit of the Cardiology Department. The Heart Rhythm Group includes up to 15 staff, including consultants, scientists, an Electrophysiology Clinical Nurse Coordinator (EP CNC), an EP Registrar, resident doctors and Research Fellow. The PA worked in electrophysiology (EP), in pre-admission and out-patients clinics, as well as providing referral/scheduling and discharge liaison for patients in the coronary care unit or cardiology patients located elsewhere in the hospital (outliers). She was a liaison/first point of contact for cardiology staff and EP/pacing scientists regarding EP/pacing patients. She undertook the pre-admission clinic twice a week, assisted outpatient scheduling and facilitated discharge post-procedure. More recently, the PA has collaborated in a research study undertaken by consultants.

At Cooktown, the two PAs joined a team of five doctors (two registered medical officers (RMOs) and three senior medical officers (SMOs)) who look after emergency, outpatient and inpatient departments. The site has approximately 8 nursing positions, a resident radiographer, and co-located community health facilities. The PAs were included in the medical roster, attending medical meetings and taking part in ward rounds. They assessed, diagnosed and treated patients daily in the outpatient clinic and looked after patients who were admitted to the ward. From July 2009 the PAs began a regular on-call roster over weekends, freeing the doctors so that a doctor was only called in an emergency. Each week, one of the PAs joined one of the Cooktown doctors in the clinics held at remote communities such as Wujal Wujal, 70 kms south of Cooktown. From January 2010, one PA attended the Wujal Wujal clinic each Friday as the sole medical provider, with remote medical supervision provided from Cooktown.

In the beginning of the Pilot at Mt Isa, two PAs worked in the emergency department (ED) of the hospital. There are 14 full-time equivalent (FTE) RMOs on staff and three FTE SMOs. The ED doctors see about 100 patients on average per day. After several months, the PAs began to alternate in rotation
to Normanton Hospital (14 beds), 500 kms north of Mt Isa. The doctor in Normanton works mostly in private practice at his own clinic but also visits the hospital. As the arrangement with one PA in Mt Isa and one in Normanton worked well, it was decided that one PA would remain in Mt Isa and the other would work primarily at Normanton and Karumba, 70 kms north of Normanton. In Mt Isa, the PA ran an alternative primary care clinic where non-urgent patients who presented at the emergency department could be assessed and treated more quickly. At Normanton and Karumba, the PA worked alongside the GP in the GP clinic, the Normanton hospital, and the Karumba health centre (35 kilometres from Normanton).

A range of views were expressed regarding the role of the PA. For some, it is an evolving role, but became essentially a liaison point and interface between patients and clinicians, providing continuity across staff and between staff and patients.

“We face increasing complexity every day, increasing numbers of people needing to be treated, complex procedures, a range of units and staff involved. The PA role can assist with much of that – to coordinate, connect, the patient with the range of procedures required, making sure the patient is being assessed, treated, followed up by all the disparate bits of our complex system’. (doctor)

One PA described the role as ‘to make things happen, make them more efficient, bring it together for the patient’. It was considered by many to be a role with great potential, but it required further definition. ‘PA roles are intrinsically self-defined, responding to the context and capability of the individual and related roles.’”

3.2.5 Medical supervision

All PAs across settings work under the supervision of a medical practitioner who has overall responsibility for clinical outcomes. The nature of supervision varies according to geography and setting. In the USA, the supervisor is legally required to ensure the appropriate scope of practice of the PA, although supervision may be conducted remotely.

The medical oversight of the PAs in this Pilot was considerable. The model of supervision was based on the supervision requirements of junior medical staff and the practice of PA supervision in the USA. Guided by an individually-tailored practice plan, each PA worked closely with the medical supervisor and senior medical staff. While there was a named medical supervisor at each site for the purposes of the Pilot, medical staff shared the supervision responsibilities according to the roster and availability.

All PAs within the Pilot worked with direct supervision from a medical officer. However, a number of instances occurred where PAs functioned with remote supervision, or where a medical officer was not directly present. These occasions provided an opportunity to demonstrate the capacity of the PA to work under remote medical supervision. As noted above, the PAs at Cooktown attended the health clinic at Wujal Wujal once a week, with remote supervision.

Towards the end of the Pilot at Mt Isa, the PA was called at short notice to take over the nursing station at Camooweal one Friday when the resident nurse became ill. Camooweal is a single nurse clinic about 190kms west of Mt Isa, near the Northern Territory border. The PA spent three days at Camooweal over a weekend, with distance supervision as required from the medical officers in the Mt Isa Emergency Department.

At Normanton, the PA worked for the most part in the same environment as the GP. However, she also attended the hospital at times while the GP remained in the clinic, attending to patients who presented as outpatients or who had been admitted.

In all of these instances, the supervision arrangements were the same as those available to the nurses who were resident at the remote site: medical supervision is provided to Wujal Wujal nursing staff from Cooktown, the Normanton hospital has medical supervision provided by the local GP, and the remote nurse at Camooweal accesses medical supervision from the Mt Isa Emergency Department. The supervisory arrangements for remote medical oversight were already in place, and were simply re-negotiated to accommodate the role of the PA with its different scope of practice and capability.
It was noted by PAs, medical supervisors, and nurses that the level of clinical experience of the participating PAs had significantly contributed to their ability to negotiate their new position in the clinical team and to work with others to develop the parameters of this new role in each particular site. Medical officers who supervised PAs noted that, while in the beginning there was a close level of supervision, this quickly decreased. PAs appeared to have a clear understanding of their own scope of practice and to refer to the supervising doctor appropriately.

**Practice plans**

PA supervision and practice report templates were designed by Queensland Health at the commencement of the Pilot. The practice plan was developed by the PA in consultation with their medical supervisor, and clearly articulated their scope of practice and their supervisory requirements. The scope of practice for each PA was deliberately limited at the commencement of the Pilot, in order to give time for the PA to demonstrate competence, safety and quality of care. For the most part, the PAs acknowledged that their accepted scope of practice in the US health system was greater than that allowed within the Pilot. They recognised the reasons for this and accepted their more limited autonomy, while also seeking to demonstrate that the potential of the PA role to undertake a much wider scope of practice.

Supervisors were required to provide reports on the practice plans to the Quality Assurance Committee (QAC). They were also required to review all of the charts of patients seen by the PAs (100% of charts initially, and reducing thereafter to about 25% for most of the PAs by the end of the Pilot). Monthly reports were required for the first three months, and quarterly thereafter. Over the course of the year, the time required for supervision diminished, with one supervisor estimating that PA supervision required one to two hours per week by the end of the Pilot. The Quality Assurance Committee reported quarterly to the Physician's Assistant Pilot Steering Committee.

In interviews, respondents generally acknowledged that the levels of training and experience of the PAs participating in this Pilot were very high. Accordingly, the amount of supervision required to acclimate the PAs into the clinical environment was less than might have been expected. In one site, the medical supervisor considered that one month was all that had been necessary, whereas in another the medical supervisor felt that two months or so had been adequate. The issues which were cited as requiring translation were primarily prescribing (eg different names and measurements for medications in the US and Australian systems), and processes (eg forms requiring completion, roles and authorities within the clinical team).

> They have acclimated very well, even around the drugs – where we expected there would be translation problems – they haven’t been a problem. (doctor)

> Supervision was important for the translation issues, probably two or three months would be needed but these [PAs] both are incredibly bright and determined and they picked things up quickly. (medical supervisor)

For the first six months of the Pilot, a reporting template was provided for the PAs to complete for each patient they saw, with such information as diagnosis, treatment, prescribing outcome, tests ordered, and whether the encounter was within their scope of practice. This data was entered by the PA, with patient information such as patient identifier, age and sex added by either the PA or an administrative staff member. All the data was then transcribed into an Excel spreadsheet. This scope of practice reporting was also provided to the Quality Assurance Committee.

Protocols were in place through the Quality Assurance Committee for Queensland Health to respond to any concern regarding quality, and any adverse events which may occur. There were no adverse events or reported concerns regarding quality (see also 4.2).

**Scope of practice**

As shown below, supervisors quickly grew confident regarding the level of expertise of the PAs, and the scope of practice expanded as a consequence. This included an expansion of the ability to prescribe, something that was endorsed by the Quality Assurance Committee on 7 August 2009.
Over the life of the pilot there were a number of expansions to the scope of practice (as documented in scope of practice reports). These included the following changes.

- The role synopsis at Cooktown was expanded to include conducting clinics at the Wujal Wujal health clinic, with medical supervision conducted by phone. Additional activities were also added to the list of activities able to be undertaken by the PA after direct consultation with the supervising medical officer.

- The role synopsis for one PA at Mt Isa was expanded to include the review of chronic conditions in primary health care in the community of Doomadgee.

- A number of changes were made to the PA’s role at PAH as the role became more clearly defined. By the end of the pilot the PA was able to order blood or blood products, if under the written or verbal direction of the supervising medical officer.

- At all sites the level of supervision required for (non restricted) 2,3,4 and 8 scheduled medication prescriptions was lifted from Level 1 (all orders approved and co-signed in real time) to Level 2 (all orders co-signed within 24 hours) or Level 3 (random review).

Some reductions to scope of practice were also implemented mid-way through the pilot. These were noted to be precautionary in nature, with none precipitated by adverse incidents.

- In all sites, additional medications were added to the list of medications requiring supervisor consultation when ordered. These amendments were undertaken in consultation with the PA Quality Assurance Committee and medical representatives from each site.

- In one site, the minimum age below which the PA must immediately seek supervisory advice before implementing a management plan, increased from 6 months to 2 years. This was in recognition of the potential for Aboriginal and Torres Strait Islander children in that young age bracket to present with a history of symptoms that may not reflect the actual severity of illness.

- At Mt Isa, concerns that resident medical staff may miss training opportunities relating to specific activities led to the removal of ‘central line’, ‘sedation’, ‘arterial lines’ and ‘chest tubes’ from the list of activities that the PA could undertake under direct supervision.

Supervisor reports were completed after one, two, three, six, nine and twelve months. Overall the quarterly supervisor reports reflected very positive feedback from supervising doctors on the PAs’ clinical standards, practice and engagement with staff. Medical staff reported that they had great confidence in the PAs. They also pointed out they had even greater confidence in the PAs’ insights into their capabilities. That is, the Pilot PAs knew what they could and could not do. This was described as especially important in busy environments or when there are limited numbers of doctors available to provide supervision.

The consistent theme to the reports, over time and across sites, was the high level of clinical standards, skills and motivation demonstrated by the PAs.

- In all reports over the life of the pilot, all PAs were judged to be meeting all applicable practice standards.

- There was a notable decline in the proportion of PA charts reviewed by supervisors after the first month. In the first month, all charts were reviewed for four of the five PAs. After 12 months, three PAs had 20% to 25% of their charts reviewed, while the other two PAs had all of their charts reviewed.

- Overall comments about PAs were consistently positive. After 12 months the phrases used to describe PAs were ‘indispensable’, ‘significant addition’, ‘great communication’, ‘well-liked’, ‘good clinician’, ‘thorough approach’ and ‘have every confidence in capability and reasoning’.

- Feedback from other staff was also reportedly consistently positive.

Supervisors noted some issues regarding adjustment to the Australian health system. Early in the pilot these related to learning new medicine names and becoming familiar with differing work practices with differing emphases and tasks undertaken. Later on, supervisors emphasised PAs were limited by not having a provider and prescriber number.
3.2.6 Support systems

The PAs were provided with support by Queensland Health and by the local leadership to settle into their new communities. The extent of this differed between sites, and included assistance with housing, information about local services and access to amenities, introductions into the community and social gatherings, and expressions of welcome and hospitality. Where this was well done, it was greatly appreciated by the PAs. At one site, however, the extent of welcome, local induction and introductions, and assistance with housing and amenities was less than was needed, and this coloured the early development of working relationships.

At the two sites where PAs were co-located, having another PA was appreciated to provide support and shared experiences. All of the PAs indicated they had understood that the Pilot would facilitate their meeting together by teleconference or face-to-face, as a means of providing support to each other and to learning from each other’s experiences. In the event, this rarely happened. All the PAs said this would have been beneficial. One teleconference was organised and one face-to-face meeting was held in Brisbane in February 2010. It was reported if the meeting had been held earlier in the Pilot, it might have assisted with acclimatisation. One of the PAs took the initiative to travel to the other sites to visit the other PAs, and in this way fostered support and relationships between the five participants.

Support mechanisms to assist other participating Queensland Health staff through the course of the Pilot were ad hoc, but included efforts on the part of Queensland Health management, and local medical supervisors to hold meetings and communicate regularly about the purpose and intent of the Pilot.
4 Contribution of the PA role to health system capacity

4.1 Six domains of quality

In the 1990s, the United States Institute of Medicine (IOM) formed its Committee on Health Care Quality in America. This Committee of esteemed academics, clinicians and recognised experts in health care systems published a number of reports including a significant volume on health care reform entitled *Crossing the Quality Chasm* (Institute of Medicine 2001). The Committee identified six domains of quality care, and explored in detail what was required in order to ensure these standards were met within the American health system. These six domains of quality find their legitimacy through the experience of the patient. That is, good quality health care is based on the notion of quality as viewed from the patient’s perspective (Berwick 2002).

According to the Committee, “Health care should be:

- **Safe** - avoiding injuries to patients from the care that is intended to help them.
- **Effective** - providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively).
- **Patient-centered** - providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.
- **Timely** - reducing waits and sometimes harmful delays for both those who receive and those who give care.
- **Efficient** - avoiding waste, including waste of equipment, supplies, ideas, and energy.
- **Equitable** - providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socio-economic status.” (Institute of Medicine 2001:6,7)

A key aim of the Physician’s Assistant Pilot was to assess the impact of the PA role on the provision of quality health care in Queensland. For that reason we have structured this section of the report to reflect on the Pilot according to these six domains of quality. This chapter draws on evaluation data (supervisors’ reports, interview data, scope of practice data, PA journals) and organises the results around the quality domains.

4.2 Safety

4.2.1 Care provided by the PA

There were no incidents reported during the Pilot which compromised or otherwise affected patient safety. All supervisors reported being impressed with the level of skills and experience demonstrated by the Pilot PAs. The consistent theme through all supervisor reports, over time and across sites, was the high level of clinical standards, skills and motivation demonstrated by the PAs.

_The quality of care is almost faultless – very good, very thorough. When I check on what [the PA has] done it is almost always what I would have done and all the points I would have checked._

*(medical supervisor)*

Responses to the staff survey support the feedback provided through interviews. At the commencement of the pilot, most staff who completed the pre-pilot survey anticipated that the PA role would impact positively on the workplace across a range of factors. In the post-pilot survey, significantly more staff reported that the PA role had impacted positively on quality of care (up from 61% to 80%) and safety of
Care (up from 53% to 70%). Responses relating to other factors were similarly positive in the post-survey compared to those in the pre-pilot survey. Almost no staff anticipated or observed negative impacts (0% to 5% across the factors).

Figure 6—Anticipated and actual impact of the PA role on the workplace

Restrictions placed around the PA role for the purposes of the Pilot have, in reality, masked the full capability of the PA role. While the limitations on prescribing and scope of practice ensured safety, the potential for an expanded scope of practice will also need to be tested for safety should the PA role be continued.

No one interviewed for the evaluation of the Pilot identified any instances where the care of a patient had been compromised by a PA. The perspective of the supervisors and participating clinicians from the Pilot appears to indicate that the PA role had a positive impact on health care quality by providing safe and expert care.

Importantly, it should be noted that each of the participating PAs had over a decade of clinical experience, and all five were rated highly as effective clinicians in their own right. The five were extensively vetted during the recruitment process and performed under intense scrutiny during the Pilot. To that extent, it is not surprising there were not clinical safety concerns. While this demonstrates that the PA role can deliver high quality care, it does not provide evidence that all PAs will perform to this standard, nor does it give any indication as to the level of quality which might be expected of newly-graduated PAs.

However, safe care by PAs is consistent with the literature. Research from the USA indicates that PAs present no safety of care issues (O’Connor & Hooker 2007). Indeed, there have been fewer medical malpractice cases against PAs than against physicians (Legler, Cawley & Fern 2007, cited in Farmer et al 2009). High levels of safety were also reported in the evaluations of the NHS pilot studies in England and Scotland. No patient safety issues were identified that were considered problematic by medical supervisors.

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16 Note difference significant at a 90% confidence level
A number of USA studies have concluded that the quality of care provided by physician assistants is equal to that provided by doctors in comparable situations (Mittman, Cawley & Fenn 2007, cited in Jolly 2008). This is most evident when PAs are practicing with a group of patients for which they are best prepared to serve (O’Connor 2009).

As part of the South Australian Physician’s Assistant Pilot, Ho et al (2009) conducted a literature review regarding the physician assistant role and safety in the surgical setting. The authors located and reviewed 13 published studies of PAs working in this capacity in a variety of specific roles. They found no instances where patient safety and quality of care were compromised. The review concludes that ‘Physician(‘s) Assistants have been shown to provide safe and provide high quality care in surgical units.’

4.2.2 Medical workload

One supervising clinician stated that as the PA role can assist the doctor to have more reasonable working hours, the role can potentially improve physician safety as well. ‘Every year fatigue becomes a bigger issue for doctors. A PA is a much safer solution than giving newly trained doctors more responsibility.’

In Cooktown, one PA was rostered to be at Cooktown health service every weekend during the daytime hours, with the on-call doctor available by telephone if required. The PA handed over to the on-call doctor in the late afternoon, and the doctor took the overnight call duty.

At Cooktown, a comparison was undertaken of doctor overtime on weekends in March 2009 (before the Pilot) and March 2010 (during the Pilot) indicates that overtime had decreased by 18%. While 3 out of 8 weekends in March 2009 found doctors working more than 12 hours a day, the longest day in March 2010 was ten hours. It is notable that over that time there has been a 13% increase in presentations and a 34% increase in outpatient admissions. It is possible that the decrease in doctor overtime, by reducing working hours, will also reduce fatigue and potentially ‘burnout’.

‘They have made a significant different and to be honest the thought of working a weekend without them is overwhelming. It has been so helpful having them around…we are all lamenting their departure.’ (doctor)

4.3 Effectiveness

4.3.1 Team capacity

According to a number of both doctors and nurses, the PA role has allowed medical staff to allocate their skills where they were most needed, and for nursing staff to allocate their time more effectively. The PA role has assisted with smooth delivery of patient care by providing continuity, streamlining processes, and freeing up medical time for more complex duties.

An example of this is the implementation of the Optional Pathways Clinic at Mt Isa Emergency Department, where non-urgent patients requiring primary care were seen by the PA, freeing the doctors to tend to genuine emergencies. One medical doctor reported that since the establishment of the clinic, non-urgent patient numbers had declined, while the number of patients who attended the clinic had increased (see section 4.5). This had the effect of reducing waiting times in ED.

At PAH, the role of the PA developed to fill a number of gaps which the department had experienced in the scheduling and preparation of patients for EP procedures. During the Pilot, it was reported that the PA position streamlined a process which had previously been relatively ad hoc. This allowed other clinicians – doctors, nurses – to deploy their time more usefully as procedures were performed with fewer cancellations or other delays. In addition, the PA provided continuity from pre-admission, to procedure and post procedure. This resulted in patients who were briefed more comprehensively, were better prepared for the procedure, and who could be discharged more efficiently, according to staff within the department. It was noted that since the PA had begun working in the out-patients clinic, the numbers returning to the clinic over time have reduced. It was reported that junior doctors were
sometimes less confident in the absence of a consultant, and may therefore recommend return visits over time that may not be required. The PA’s specialist experience provided additional assessment expertise, ensuring only those who needed to return for follow-up were actually invited to return.

At all sites, the PAs were considered to have had a positive impact on service delivery capacity. This evidence is anecdotal rather than quantified. At Cooktown, it was noted that the number of patients being seen in the outpatients’ clinic had increased, because having two additional clinicians had increased the overall capacity of the system. At Normanton, it was reported that the PA had assisted with throughput and had freed the doctor’s time to work more effectively. At Mt Isa, PAs conducted an outpatients’ clinic through a reported H1N1 epidemic and had demonstrated the capacity of PAs to manage an influx of patient through appropriate triage. At PAH, it was widely acknowledged that the PA’s responsibility for pre-admissions had reduced the number of procedure cancellations, enhanced triage, eased pressures on doctors and improved patient care efficiency. Patients had also benefited from having a single point of contact as well as greater contact time.

PAs have fit in well with the system. They are not replacing nurses or doctors – they are somewhere in between. They have helped us when we’re busy. There are things they can’t do, but what they do is useful. (nurse)

4.3.2 Continuity

A number of nurses and other clinicians noted that the PA was easily accessible when medical input was needed. One PA referred to the PA role as ‘a ‘constant’ in the midst of change, and a ‘go-between’ for nurses and consultants’, assessing and where appropriate responding to requests for consultant input. This reduced the burden on consultants by providing timely responses to nurses and other clinicians. Other PAs have also noted the ability to respond to nursing queries regarding charts or other requests without disturbing the doctor, facilitating the nursing workload and reducing the time required to receive answers to their questions.

Another aspect of providing continuity occurs during the ‘changeover’ as doctors in training move from one placement to another. According to some clinicians, this is one of the ways in which the PA role can benefit the system, by providing continuity of knowledge and understanding while doctors learn about their new environment. One PA commented that although she had only recently been new herself, ‘now I’m showing the new doctors where to find forms, equipment, phone numbers, what procedures are for various situations’. A supervisor noted the value of this continuity in providing orientation for new medical officers. At PAH, the PA prepared a range of guidelines, protocols and checklists designed to induct rotating junior doctors and registrars into existing systems and processes.

Positive impacts on care continuity and expanded capacity were also reported in the NHS pilots in England and Scotland. The evaluation of the NHS England pilot found that PAs expanded medical capacity, particularly in primary care, by complementing GP expertise and increasing the available clinical skills-mix (Woodin et al 2005). The evaluation of the NHS Scotland pilot identified the benefit of stability provided by PAs in settings where there are many doctors in training and on rotation. The PAs were viewed as a ‘knowledgeable, approachable education resource’, and their consistent presence impacted positively on staff and patients. Some early findings to this effect have also been reported in the South Australia pilot (Ho et al, 2009). In one site the PA was able to fill the roles of the junior registrar and resident when those roles were absent: assisting in theatre, booking cases and ensuring that intern handover was continuous. In a second site the inclusion of the PA in a surgical unit meant that two extra clinics could be offered per week. Patients could be seen earlier by the PA rather than waiting for an appointment in the general outpatient clinic. The PA also participated in the outpatient clinic and ward rounds, ensuring continuity of care. (Ho et al, 2009)

4.3.3 Task delegation

The impact of the PA role on system effectiveness appeared to be most visible in the opportunity to delegate tasks to an appropriate clinical level, thus freeing the senior doctor’s time for more complex medical cases, for teaching or for management. The PA role is flexible enough to assume responsibility as required in different environments, allowing senior doctors to re-distribute tasks to the clinical level.
most able to undertake them effectively. One person observed that a PA resource enabled specialists to focus on critical clinical and teaching priorities.

It lets the consultant get on and do other things they should be doing, like training registrars and residents. (doctor)

Studies in the USA have also assessed the impacts on system capacity within an individual setting. Cawley et al (1983) report that hospitals were able to substitute 50% to 75% of a doctor's work with one PA, thus freeing up the doctor to work on more serious cases.

4.3.4 Flexibility

The phrase 'an extra pair of hands' was used often in interviews at all sites. It was recognised that any additional clinician – nurse, PA or doctor – could make a contribution to service capacity. While an extra pair of hands was appreciated, it was not always clear to some clinicians whether the PA was expected to be an addition to or replacement for other positions. Concerns were expressed from both nurses and doctors that the PA role would be seen as a replacement for either doctors or nurses, rather than as an expansion of the current health workforce.

It shouldn’t be a replacement for doctors, but it’s a retention strategy. It provides additional workforce to add [to remote service delivery]. You could put a PA in with either a nurse practitioner or a registered nurse and provide remote supervision. We have huge burnout and turnover, and we need to address this. (doctor)

It was common for respondents to consider that the PA would be most effective in their current setting. Thus, at PAH clinical team members could see the benefits of having a PA in a tertiary specialist setting with a routine procedural and process focus. There were also those at PAH who felt the role had much to offer in rural and regional settings. However, this also raised questions of appropriate levels of medical supervision, scope of practice autonomy and independence, and required levels of expertise. At the other sites (regional and remote) it was more likely that the PA was perceived to be most effective in those locations, with some expressing concern that, like other clinicians, it would be hard to ‘lure’ PAs to rural practice. A number of people believed that PAs should be actively promoted for rural and remote locations rather than urban or specialist environments which are better serviced.

The increased scope of practice of the PAs was considered to be an indication of their effectiveness, as was the decreasing levels of direct supervision. The fact that PAs were deployed at Wujal Wujal, 70 kms from Cooktown, with remote supervision, was one indication of the confidence which their supervisors placed in the PAs. While it had not significantly increased the number of people seeking to see a medical provider, it did provide an opportunity within the Pilot to explore remote delegated practice.

It appears from the literature and also from the Pilot that the flexibility of the PA role allows it potentially to be effective anywhere, depending upon the actual nature of the service need, an agreed service gap that is recognised, the supporting clinical team and infrastructure, the skills of the practitioner, the opportunity for additional training (for instance, in a speciality area), and the quality of the relationship between the PA and the supervising doctor. At each of the sites, PAs have been noted to be effective in their given area of responsibilities, although those areas differ from one another. Across the Pilot, therefore, there is evidence that PAs were effective in a highly specialised tertiary clinic, in a remote GP clinic, and in a rural hospital in emergency, out-patient and in-patient environments.

4.4 Patient-centredness

4.4.1 Patient engagement

Patient surveys indicated a very high level of satisfaction with the quality of care provided by PAs; 91% of patients were very satisfied and a further 6% were fairly satisfied. No patient reported being dissatisfied with the quality of care. (It should be noted that those patients most satisfied may have
been more likely to return surveys, than those who were not, or those who may not have wished to complete a written survey).

Compared to the care they normally receive, those who returned surveys reported the PAs’ care to be better (35%) or similar (16%). The great majority reported being willing to see a PA in their next visit (91% ‘definitely willing’, 6% ‘probably willing’).

Figure 7 – Patient satisfaction with the quality of care

A common theme from both PAs and supervisors was that the PA had more time to spend with patients. This was due to the fact that the PAs were supernumerary staff and therefore had more time to give. At the same time, the PAs have been trained to approach a patient with a holistic, person-centred perspective. In practice this means that a PA may undertake a comprehensive history and a diagnostic assessment based on more than the presenting symptom. Clinicians reported this ensured they had more accurate information, their subsequent diagnosis and treatment was better informed, and patients were better-prepared for procedures.

The patient survey results indicated very positive feedback regarding all aspects of the PAs’ interaction:

- 89% reported that the PA provided as much information about their health condition as they wanted
- Nine in ten patients rated the PA as excellent or very good with respect to courtesy (93%), the way they explained things (91%), their listening skills (90%), and their overall response to concerns and comments (91%).
- Among those who could provide comment, most (80%) rated the PA’s respect for cultural or religious needs as excellent or very good.

Figure 8 – Patient perspectives of the PA
Positive patient feedback was widespread across sites and demographic subgroups. There appears to be particularly positive feedback from women, those aged over 65 and those attending PAH. For example:

- Women rated the PAs' courtesy and listening skills significantly higher than did men (80% versus 57% 'excellent' for courtesy; 73% versus 50% 'excellent' for listening skills). Furthermore, 43% of female patients found the PA's care to be a lot better than the care usually received, compared to 27% among males.\(^\text{17}\)

- 97% of patients aged over 65 were very satisfied with the care provided by the PA (compared to 85% among other age groups) and 100% would definitely be willing to see the PA again (compared to 85% among other age groups)\(^\text{18}\)

- 48% of PAH patients found the care to be a lot better than the care usually received (compared to 24% of Cooktown patients and 27% of patients at Mt Isa)\(^\text{19}\)

There were no differences over time. Responses from patients who completed the survey in 2009 were equally as positive as those provided by patients in 2010.

Other key themes from the survey related to PAs' friendly and caring attitude, their approachability and good communication skills, their ability to provide clear and thorough explanations, their knowledge and efficiency. A number of patients noted that the PA provided an effective link between the patient and the nurses and doctors. The benefit regarding continuity of care was also noted, particularly relating to long term conditions.

Almost no negative feedback was provided. One patient noted that the PA was unable to prescribe the pain medication they required and had to find a doctor who then had to have the case explained to him; one patient stated that while they were happy with the care they received they would not want a PA to replace the doctor.

One PA has credited their training for their patient-centred approach, indicating that the time taken for examination and diagnosis pays dividends by giving the patient time to explain their situation fully, including contributing factors other than the immediate presenting problem. This was summarised as, ‘if you listen long enough, the patient will tell you what’s wrong’.

### 4.4.2 System responsiveness to the patient

Another aspect of ‘patient-centredness’ relates to how the PA role enhances the system of care to respond to patient needs. In the delegated clinical role, the PA can ensure that the patient journey through the system is smooth by undertaking preliminary examinations, medical histories, and tests, and then providing the consulting doctor with fundamental information. One supervisor has suggested that the PA assisted to reduce repeat visits of some patients ('the revolving door'), because the patient perceived his/her problem to be recognised and remedied.

In the Pilot, the PA was often delegated to provide regular follow-ups, and to liaise between consultants, patients, and other health providers. The PA was often less constrained by appointments than the supervising clinician, and could therefore be available to provide consistent information and advice, not only for the patient but for other clinicians, which assisted patient experience and outcomes.

This benefit was noted at PAH, where the PA was perceived as proactively acting to resolve any issues in patient preparation and scheduling between different sections, before this became an issue. The PA was also able to link with consultants who might be otherwise engaged, clarify requirements and then take appropriate action.

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\(^{17}\) Difference significant at 95% level

\(^{18}\) Difference significant at 90% level

\(^{19}\) Difference significant at 95% level
In the NHS England and Scotland pilots, there was positive feedback from both patients and staff with respect to quality of patient engagement and continuity of care. Patients who participated in the NHS England evaluation reported that PAs had high clinical skills and were able to meet their needs. The PAs were highly regarded for their patient-centred approach, which stemmed from their strong communication skills, their identification of needs other than the presenting issue and their pro-active information provision (Woodin et al 2005). The evaluation of the NHS Scotland pilot identified the benefit of stability provided by PAs in settings where there are many doctors in training and on rotation. Their consistent presence impacted positively on staff and patients.

Similarly, literature on the PA experience in the USA provides consistent evidence of patient acceptance of the PA role, and of high levels of satisfaction with the care received (Dehn 2007; Farmer et al 2009; Woodin et al 2005; Caldow & Bond 2008). In 2007, the American Academy of Physician Assistants (AAPA) commissioned a national survey of community attitudes to PAs via a national omnibus poll. Very strong positive feelings about the PA profession were demonstrated, with 90% of those who had been treated by a PA indicating their willingness to be seen by a PA again.

4.5 Timeliness

A number of people at each site reported that the addition of the PA role improved waiting times for patients, and that patients were seen in a timely manner.

Anecdotal reports at Cooktown suggested that waiting times improved in the outpatient department. The Cooktown PAs had daily responsibility for the outpatients clinic, where they provided the initial assessment. This freed the nurse to undertake triage, and the doctor to spend more time on the ward (rather than moving back and forth between the ward and the outpatients' clinic). The doctor was only called if necessary, for instance to authorise a prescription or referral. According to both doctors and nurses, this freed the doctors to spend more time on the ward. It also made it easier for the nurses to find someone to assist them since the PA was rostered in outpatients and thus was always there when needed, whereas previously the doctor had to be called from the ward when someone presented at the outpatients' clinic. This saved time for the nurses.

At PAH, it was noted that the dedicated role the PA was able to create led to improvements in scheduling of EP procedures, in preparation of patients and in follow-up. According to clinicians, this improved the movement of the patient through the clinical process, and thus increased the efficient use of staff time. Both doctors and nurses reflected that the PA was able to streamline pre-procedure preparation, ensure documentation was complete that would have otherwise relied on time-poor consultants, and ensured that procedures were not delayed unnecessarily.

In Mt Isa, Emergency Department attendance data revealed a reduction in category 5 presentations since the introduction of the PAs. This was accompanied by an increase or maintenance of presentations in other categories, particularly in August 2009 which was around the time of an outbreak of H1N1 influenza. Given the role that the PAs undertook in the Optional Pathways Clinic, we would anticipate any impact on emergency attendances to be felt at the Category 5 level. Thus, the reduction in category 5 presentations, together with the non-reduction in other category presentations, suggest that the use of the PA in a primary care clinic as an alternative to the emergency department was effective in reducing non-urgent presentations to emergency.
Feedback from patients who participated in the patient survey was also positive. Seven in ten participants reported having visited the health service on a previous occasion. Among these participants, most reported that the waiting time was shorter (47%) or the same (42%) as their previous waiting time. Only 5% of patients felt the waiting time was longer (6% were unsure).

A higher proportion of patients from Cooktown reported a reduction in waiting time (73%) compared to other sites (30%).

Figure 9 – Waiting time reductions as reported by patients

Some clinical staff attributed improvements in throughput to the addition of the PA role. If there were improvements, it is not clear whether this was due to the PA role itself, or to simply having an additional, experienced clinician on the team. With the exception of Mt Isa ED where figures were available, it is also not clear whether the improvements are substantive, or simply a perception of greater efficiency with an expanded team.

A limited evaluation of US-trained PAs working in the West Midlands region of England reported that the introduction of PAs led to increased patient throughput and reduced waiting times. There was increased job satisfaction among existing employees, due to the reduction in workload, and it was argued that this could reduce staff turnover (Parle et al 2006).
4.6 Efficiency

All of the PAs considered that the restrictions placed on them in the Pilot decreased their ability to demonstrate their efficiency. The inability to prescribe was noted as the primary cause of inefficiency, ‘wasting time’ as they sought out a prescribing doctor to co-sign every prescription. This impacted on the supervisor’s time as well as the PAs, and kept patients waiting. The restriction of PAs on conducting the consent process, or signing Centrelink and other forms, also restricted the amount of work from which the PA could do to relieve the doctor.

Supervisors indicated that these restrictions impacted on their workloads, although it should be stressed that both PAs and supervisors understood and accepted the restrictions in the context of the Pilot.

Each of the PAs noted that there are distinct differences between the American and Australian health systems with regard to efficiency in service delivery. The American system, being a primarily profit-oriented private system, has structural drivers which promote operational efficiency. The Australian system, as a public system guaranteeing universal access, is not structured to drive efficiency. Many of the clinical staff interviewed noted the efficiency and work ethic of the PA(s) at their site; likewise, all of the PAs noted that they could have been more efficient except for the systemic drivers that impeded their performance. Practical factors included the number of consulting rooms available, insufficient nurses or administrative assistants, and rostering. One PA estimated that she was 50% as efficient as she had been in her US employment.

A number of research studies have found PAs to be a cost-efficient workforce solution. The key argument is that PAs can be trained more quickly and at a lower cost than doctors, and that they are employed at a lower salary level. Since PAs undertake many of the tasks previously undertaken by a doctor, the overall cost of patient care is reduced. A study conducted by Hooker (1999) found a reduction in the total cost of a patient visit for common conditions. In 2000, Hooker reported on the economic impact of PAs on rural or solo practices. He found that PAs increased productivity in terms of the number of patients seen, and improved the workload and income of the employing doctor. Grzybicki et al (2002) and Roblin et al (2004) also found that employing PAs was more cost-effective than employing more doctors. In contrast, however, the NHS England pilot evaluation reported that in some instances, the money saved on PA salaries was offset by longer consultation times and lower activity. (Woodin et al, 2005).

4.7 Equity

This was not directly addressed, and indeed was not an overt focus of the Pilot. However, equity is an essential principle of the Australian health system. As emphasised within the recent National Health and Hospitals Reform Commission report, A healthier future for all Australians:

> Equity, or ‘fairness’ to use everyday language, is at the heart of the Australian health system, and is, indeed a very strong part of the Australian social psyche…equity is about much more than whether health services are affordable. We know that the health system is not ‘fair’ and some people miss out because of where they live; others may experience a health system that does not meet their needs because of their different culture or language; and yet other people with a disability or a mix of complex health problems may find that there are major gaps in access to medical and other specialist services and the ‘system’ does not connect up all their care needs.” (Commonwealth of Australia 2009:81)

To the extent that the PAs have enabled more patients to be seen or to be seen more quickly, and have by doing so extended the capacity of doctors to care for more patients seeking treatment, they may be said to have contributed to the provision of equitable care. Increasing services to Aboriginal or Torres Strait Islander patients, who are traditionally less able to access services, and in rural and remote locations, may also be said to have increased the equity of health care delivery. This is the case at Wujal Wujal, Karumba and Normanton, where PAs have increased the availability of medical care by assisting the supervising doctor, or by providing additional clinic times with the support of remote supervision.
There is no data available to document the extent to which PAs have increased the equity of the health system. It is also true that the addition of five practitioners across the entire Queensland health system will not in any way make a substantial difference in the capacity of the system to provide care equally to all those in need. However, it may be argued that the PAs have improved the capacity of the system to provide equitable care to those in need for:

- patients seen by a PA without having to wait for a doctor
- patients who have had their surgical procedures scheduled and conducted without any delays or cancellations because the PA has improved the efficiency of the system, or
- patients in remote communities who were able to see a medical practitioner because the PA’s availability meant additional clinic times were available.

Experiences outside Australia would support this argument. The PA role was developed in the USA for the key purpose of addressing rural and remote health workforce shortages. Workforce history documents demonstrate that the trend for PAs to work in rural and remote locations has continued (O’Connor & Hooker 2007). PAs (and NPs) are more likely than doctors to establish practices in rural locations and in other areas where there is an overall shortage of health professionals.

4.8 Summary

Using the IOM’s quality domains as a framework, the evaluation team found that PAs made a contribution to the Queensland health system in each of the domains.

- There were no incidents where safety of patient care was compromised.
- PAs contributed to the effectiveness of care through increasing capacity, allowing task delegation, and providing continuity and flexibility.
- PAs were widely considered to have a patient-centred approach, and to facilitate the patient journey through the system.
- The availability of the PA and the ability to delegate tasks was considered to increase the timeliness of the system.
- PAs were regarded by their colleagues as very efficient clinicians.
- In assisting with access to medical care, PAs helped to improve the equity of service delivery.

Patients and clinical colleagues rated the PAs highly within all of these domains. The introduction of the PA role into the Pilot sites had no adverse effects on patients. Most nurses and doctors reported that the PA made a positive contribution to the clinical team, once the role was understood and integrated. A number of nurses and doctors noted the PAs would be missed once the Pilot had been completed. This was not only because of the people who held the PA role, but also because of the benefits of the PA role to service delivery.

However, other aspects of the Pilot are not addressed by the quality domains framework. The question of whether the PA role should be established within Queensland can not be answered simply by demonstrating that five very experienced and professional PAs have made a positive contribution. Questions as to whether the PA role would impact on junior doctor training or the continued growth of expanded nurses roles, those regarding PA training and the need for a regulatory framework, are all significant workforce issues. These are explored further in the following chapter.
5 Organisational and system integration

5.1 PA integration within the health care team

A number of people expressed concerns regarding the integration of the PA role into the existing clinical team. These concerns were primarily expressed in three ways:

- concerns about overlap and duplication with other roles, such as nurse practitioners and junior doctors
- concerns regarding resourcing, such as the need for additional nursing staff to balance the additional medical input of the PA, the need for more nurses generally, and a fear that employing PAs would be at the expense of employing more nurses or doctors
- concerns regarding infrastructure, such as the need for additional offices or treatment rooms (while not a concern specific to the PA role, for some people the Pilot had put additional pressure on what were already scarce resources).

This chapter discusses these and other aspects of the PA role in relation to other clinical roles and the health care system.

5.1.1 Workplace impact

Despite the early concerns expressed by participants, those who completed the staff surveys indicated a positive view of the PA role within the workplace. Results from the staff survey indicated that over the life of the pilot, staff found that the PA role was a better ‘fit’ than anticipated at the start of the pilot. There was a significant increase in the proportion of staff who felt that the PA role complemented existing roles (up from 32% to 50%) and an accompanying decrease in the proportion of staff who felt that the role would replicate existing roles (15% to 3%)\(^{20}\).

![Figure 10 – Fit of the PA role alongside other roles](image)

Results from the post-pilot survey indicate that staff felt that the PA role had a positive (53%) or neutral (30%) impact on staff morale. This was consistent with the pre-pilot survey (48% anticipated a positive impact, 15% anticipated a neutral impact). More staff felt able to answer this question in the post-pilot survey (those unable to comment declined from 32% to 18%\(^{21}\)). There was an accompanying increase in the proportion who felt there was no impact on staff morale (up from 15% to 30%).

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20 Note difference significant at a 90% confidence level
21 Note difference significant at a 90% confidence level
There was a similarly positive response to the question of impact on personal morale. In the post-pilot survey, 53% reported a positive impact on personal morale and 38% reported no impact. No staff members noted a negative impact on morale. Similar impacts were anticipated in the pre-pilot survey.

A large portion of the pre-pilot surveys (20 out of 59, 34%) and post-pilot surveys (24 out of 40, 60%) were completed by nursing staff.

In the pre-pilot survey, the majority of nurses provided positive responses regarding the introduction of the PA role at their health site and the potential establishment of the role in the health system. However, it was evident that a small number of nurses were concerned that the impact would be negative. The key areas of concern identified through open ended questions were:

- poor communication with staff regarding the Pilot and the nature of the PA role and its fit within the hierarchy
- potential duplication of nursing roles, in particular the nurse practitioner role
- reduced opportunities for specialist nurses, resulting in reduced career satisfaction.

Results from the post-pilot survey suggest a small but consistent positive shift in responses from nursing staff, although it should be noted that different staff may have completed the two surveys.

At the conclusion of the Pilot, most nurses felt that the benefits of the Pilot had outweighed the drawbacks (38% ‘far outweighed’, 25% ‘outweighed’). Others felt that there was an equal balance between benefits and drawbacks (25%) or were unable to comment (13%).

A comparison of pre-pilot and post-pilot survey results suggests that adjusting to working with PAs was easier than anticipated. In the pre-pilot survey, 22% of staff anticipated that it would be ‘very easy’ to adjust. In the post-pilot survey this figure increased to 45%. There was no change, however, in the proportion who anticipated the adjustment to be difficult (14%) and the proportion who reported it to be difficult (15%).

Figure 11 – Ease of adjustment to working with the PA

In the post-pilot survey most staff reported positive impacts on the workplace, particularly in relation to workload, patient waiting times, workflow, coordination and communication. Staff also commented on the positive response from patients. The PAs reportedly helped reduce staff workload by assisting with assessment and treatment, improving patient throughput, ability to answer patients’ and nurses’ questions while doctors were busy, and general support provided in the emergency and outpatient clinics. Overall, few negative impacts on the workplace or staff were identified. Some commented on remaining issues of role overlap and confusion. A minority reported an increase in workload due to increased referrals or administration.

The survey results align with interview results, with an overall receptive response to the PA role. One reason for this may be the flexibility of the role and the ability of the PAs to adjust their work to meet the...
needs of the team. This was identified as a strength of the role, since the generalist training of the PA allows them to turn their attention to a broad range of tasks and responsibilities. This may contribute to the perception that the PA role facilitated improvements of team efficiency and effectiveness. One of the strengths of the role was noted to be its ability to adapt in order to respond to identified gaps in service delivery.

The tasks undertaken by the PA could be done by anyone. The uniqueness of the role is the ability to span across lots of roles and to play an integrating role. (doctor)

In cardiology there are many different work groups so it is possible to carve out a work role. It can provide constancy and continuing medical care. You can train a PA to handle the intricacies of specific details of an area. Each area of medicine differs slightly, but there are recurring themes. (medical supervisor)

An additional challenge experienced in the PA Pilot, noted particularly by nurses at one site, was the pressure on office and treatment space. It was noted by some PAs that the lack of space impeded both their efficiency and that of the team (see section 4.6).

5.2 The PA role in relation to doctors

5.2.1 The PA as a medical colleague

The majority of doctors interviewed felt the PAs had made a contribution to the medical workload and had improved doctors’ ability to focus on more complex care. At the beginning of the Pilot, some doctors had not been sure how the PA role would benefit them. By the end of the Pilot, most of those interviewed observed the PA role could assist the doctor and reduce workload while helping them to allocate cases appropriately.

One doctor considered that he had some input in about half of the patients which the PA saw (eg signing prescriptions, pathology requests, etc). The time required for supervision was balanced by the fact that the PA was able to free the doctor to spend more time with patients. In this doctor’s estimation, this equated to about 25% more patients being seen than previously. While his overall workload had not decreased, more patients were seen and there was more time to attend to administrative or management matters.

Several doctors who were in training themselves noted they were being asked to supervise a PA who actually had more experience than they did. This was regarded as both a benefit (an opportunity to learn from an experienced clinician) and a challenge (ensuring that they as a supervisor had not missed something because of their own inexperience). One doctor felt it may be more difficult for them to supervise a newly qualified PA if they themselves did not have the level of confidence that experience brings.

It needs to be the responsibility of the doctor to sign off. It’s like working with a resident doctor. With [an experienced PA] it’s fine but as the supervising doctor you have the responsibility and it would be quite difficult with new, inexperienced PAs. (doctor)

Several doctors noted the benefits of having a colleague available who had been trained in the medical model, to share the workload. This was particularly true in those places where on-call was shared (eg the weekend roster at Cooktown), where services were provided at different locations (eg at Normanton between the GP clinic, the hospital, and Karumba clinic) or where PAs had taken on discrete tasks (eg the Optional Pathways Clinic at Mt Isa or scheduling at PAH). In all of these instances, the PA allowed the doctor to focus on one location or task rather than dividing time and energy across multiple locations and competing demands.
5.2.2 Medical training

Impact of the PA role on learning opportunities

While most doctors who were interviewed saw the potential for the PA role to improve the medical workload and to improve patient services, at the same time some doctors expressed a concern that the PA role would limit the capacity of the system to train junior doctors. This concern was fairly equally balanced with the view that PAs would fill a gap in the health workforce and assist with the capacity to provide junior doctor training. In interviews, it was more often the experienced doctors who saw the potential for the PA role to assist, and the less experienced doctors who perceived the role as potentially competing with medical graduates. Those doctors who were mid-career could look in both directions to the increasing number of medical students coming up behind them and also to the numbers of doctors ahead of them who were reaching retirement age or burning out. The PA role was seen as a potential bridge both for the short term, and also as an ongoing support for doctors in the long term.

The so-called tsunami of medical students will not be enough to catch up, and there is equally a tsunami of doctors about to retire -- the maths do not add up. (medical supervisor)

Some doctors' views evolved throughout the Pilot as they worked closely with the PAs. One registrar, when interviewed early in the Pilot, stated

I don't know about establishing the PA -- it's very similar to having residents. One of the worries I have is the number of medical students coming through and if there are junior PAs around I don't know how it would impact on doctors' training.

When interviewed six months later, his reservations remained but he could see that 'there is a potential role but there needs to be an appropriate pathway and end in mind before it goes ahead, in anticipation of the increase in medical staff. It could be beneficial in a single-doctor place.'

At the same time, one RMO noted, ‘there's plenty of work out there.’ Particularly in the rural and remote locations, a number of doctors in training considered that there were opportunities for appropriate task delegation which would not negatively affect their own opportunities.

One medical supervisor stated that

The Pilot has been much more successful than envisaged. I have a great deal of confidence in the role which was more than I hoped for... I see overwhelmingly their benefits. Over time we have lost the role of teachers in the public sector. Having a PA allows us to balance the two [roles of healing and teaching]. Thinking back to my own training, junior doctors are thrown into risky situations because of their lack of knowledge [but because they are part of the service delivery team]. The PAs are there to deliver the service. It is a unique role in that it's not a training position, and they are consistently available. We need to define central service delivery and see what the PA role can contribute in order [for supervisors] to have time for training, not slotting junior doctors inappropriately into service delivery.

Several doctors also noted that there is a distinction between supervising a doctor in training, and supervising a PA. As discussed previously, the intention of the two positions -- junior doctor and PA -- is different. The junior doctor needs to acquire skills and experiences in order to progress through their vocational training. The PA is trained for the level of responsibility they are given, and remains in that position while continuing to hone their own skills and experience. The supervisory requirements of the two are therefore different. A PA functions more as a medical colleague and less as a trainee.

Potential competition for supervision between junior doctors and PAs

One doctor in training noted that while he did not experience a sense of competition with the PA (because the PA was very experienced and competent) there may be more of a sense of competition with a newly qualified PA as they would both need clinical practice opportunities.

This reflected a broader concern within the medical profession regarding the projected influx of medical graduates with the resulting requirements for increased training opportunities. Other concerns
expressed by medical staff included questions regarding the capability of PAs and the associated demands for supervision this might create, such as the requirements to co-sign and review charts, which was initially considered as time-consuming.

Where is the doctor going to get their training? These PAs are experienced PAs but if they were newly trained it would impact on what the junior doctors need. I don’t think there are enough training opportunities for everyone. (doctor)

While some RMOs did express concern about their fears for the future, they also observed they had learned from the PAs. It was noted that the PAs quickly stepped aside if there was a need for someone to undertake a procedure so that the junior doctor could get the experience. PAs themselves have provided training in suturing, plastering, and other procedural techniques in the course of the Pilot.

It should be noted that PAs had limited exposure to doctors in training, and so it is not clear what impact the PA role might have on doctors who are progressing through their clinical speciality training. While it was noted by senior doctors that they found having a PA helpful for the delegation of tasks, the long-term impact of having a PA within the clinical training environment on doctors-in-training could not be assessed within this Pilot, either positively or negatively.

At a public forum held in Brisbane in February 2010, the President of the Queensland AMA, Dr Mason Stephenson, noted

It is very important that the AMA really have an open mind about this...And with regard to the concerns of our doctors in training, I think those were real concerns and we have to represent our members’ concerns. But our junior doctors have been most supportive of this Pilot, very keen for us to engage. They too want to see how it actually could potentially work in the Queensland health context.

There is a very real concern expressed by many that the system will not be able to incorporate the number of new junior doctors graduating in the next five years. It is likely that any new PAs emerging from Australian PA training courses in the next five years will not have the levels of skill and experience which the Pilot PAs demonstrate. Therefore, it will be more difficult to predict how a newly-qualified PA will assist or hinder opportunities for medical training.

In the United States, PAs and junior doctors tend to train at different institutions, thereby lessening the competition for training opportunities. This is a potential solution to the concerns of junior doctors. In any case, parameters need to be established to ensure that both trainee PAs and trainee doctors gain the clinical exposure which they require.

5.3 The PA role in relation to nurses

5.3.1 Workload impact

Over the course of the year, the majority of nurses expressed a growing understanding of what the PA role could contribute to the team, and many expressed an appreciation of the benefits that the PA role brought to the nurses as well.

The nurses get on well with [the PAs], there were concerns in the beginning but now most of the nurses are happy to have them around. (nurse)

They have assisted with the workload and the time management. They have decreased the workload but it frees the doctor up to do other things. The PAs are very thorough. It’s decreased the nurses’ workload because the PAs are willing to help out. (nurse)

Many nurses embraced the role and its potential.

It’s been an incredibly positive experience, a very big benefit having them. Initially people didn’t understand the role but then everything fell into place. There have been benefits to the community, having another medical provider who is very approachable. It’s been good to have a female, for women in the community – they see her as a doctor. (nurse)
Most nurses who were interviewed could see the potential for the PA role to share the workload of the clinical team. At the outpatients’ clinic at Cooktown, the pre-admissions clinic at PAH, and the Normanton clinic, the nursing staff were primarily positive about the improvements to workload and efficiency since the PAs had become involved. In other places, such as Mt Isa, it was harder initially to assess the impact of the PA role because of the number of doctors who were already in place within the department. Nurses at Mt Isa were less certain about the PA role because they had not seen that it provided benefits within the ED, although it was generally agreed that once the PA had moved to the separate primary care clinic there had been improvements in patient throughput by taking some pressure off the ED.

Nurses’ impressions of workload varied across the sites, and they also changed throughout the year as the PA role became more defined. There were a few nurses who did feel that the PA had increased the workload for nurses, because the PA was an additional medical staff member who was requesting assistance from nurses. This was seen as an additional burden on nurses rather than a streamlining of efforts. There were a few reports of overlap when a patient might be seen by a nurse, then a PA, and then a doctor.

*It still creates work for nurses without increasing the nursing staff. It doesn’t work well with nurses working to more doctors.* (nurse)

Other nurses were clearly in favour of establishing the PA role. While acknowledging that simply having an extra clinician on the team had made a difference to the workload, it was also felt that the particular contribution which the PA role made was to enhance the capacity of the team, by freeing the doctor to do more complex tasks, and assist the nurses by being more accessible for consultation.

*I’ve seen such a huge difference – it’s reduced the stress, reduced workload, takes a load off the medical doctors.* (nurse)

Overall, the comments from nursing staff indicated that the PA role cannot be added into a clinical environment without consideration of how the roles interact with each other and how they will work together and complement each other. Each site addressed this requirement in different ways:

- at Cooktown, the PAs were rostered as medical clinicians
- at Mt Isa, the PAs were initially additional staff to a fully-rostered team so their role was not clearly articulated; once the Optional Pathways Clinic was established the role became more accepted
- at PAH, a clearly defined area of responsibility for the PA was established, encompassing tasks that had variously been undertaken by doctors, senior nurses and junior doctors, and yet complemented existing team roles and responsibilities; these tasks were managed by the PA in a streamlined manner and in a way that was clear to everyone
- at Normanton, the PA took the role of second medical clinician, working under the supervision of the GP and sharing the workload.

Each of these models had an impact not only on the medical staff but on the nursing staff who worked alongside the doctors and PAs.

### 5.3.2 Nursing professional development opportunities

A question raised by participants in the Pilot was the relationship of the Physician’s Assistant role to other mid-level clinical roles. In Australia, this particularly relates to the role of the nurse practitioner and RIPRN-qualified nurse. Many nurses who were interviewed and who had worked with the PAs saw the role as different from the nurse practitioner or the doctor role, as a position which was able to assist both disciplines.

The nurses who provided comments to the evaluation, across all sites, were familiar with the concept of the nurse practitioner, although not many had worked with a nurse practitioner. Some were considering

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22 A ‘mid-level’ clinician is defined as those who have additional post-graduate or master’s education but are not qualified to practice medicine; in the US, this includes the physician assistant, the nurse practitioner, and midwives.
undertaking nurse practitioner training themselves. As noted before, none of the Pilot sites had nurse practitioners who worked closely with the PAs; the one nurse practitioner in Cooktown was not employed in the hospital but in the community health service next door. In the first three months of the Pilot, there was a Clinical Nurse Coordinator within the Interventional Cardiology Unit at PAH who was a nurse practitioner candidate, although not employed as a nurse practitioner. Participating nurses thus were not able to observe the two roles together, but used their own observations, knowledge or experience of each role separately to provide their perspectives.

_I think the PA and nurse practitioner roles are quite different pathways – the training is either medical or nursing. But they can do the same sorts of things._ (nurse)

_PAs are a cross-over role between nursing and medical duties, for instance doing plastering. They are happy to put IVs in. [We have been] using the PAs more to do these things._ (nurse)

While many more nurses across all sites over the course of the year came to see the PA and nurse practitioner roles as quite distinct, concerns regarding the potential overlap remained for some. In such cases, the importance of clearly defined roles and scopes of practice was paramount – but not impossible. Others considered that the capability of the position relied on the individual within it, and the role would evolve to fit the needs of the team and the capacity of the individual.

_‘The nurse practitioner role is not fully defined either, and we did not have a clearly defined role [for the PA] coming in. But it has to be about ‘feel and fit’ – what can you do, what are you comfortable about doing, what are we comfortable about you doing? It’s the nature of what we do and how – let’s see how [the PA] fits in. And the PA role relies on an individual – the skills and qualities and experience they themselves bring.’ (nurse)_

The Queensland Nursing Union (QNU) have expressed a view that with the increase in both nursing and medical graduates expected in the future, there has not been enough consideration of the impact of establishing a new clinical role on the professional development opportunities for existing health professionals, and that the PA role should be considered only once opportunities for existing health professions have been fully exploited.

5.4 Structural aspects of the Pilot

5.4.1 Ensuring cultural fit

One of the key objectives of the PA Pilot has been to explore the ‘cultural fit’ of the PA role within the Australian health system. The experiences of those who worked with PAs, and the PAs themselves, suggest that there is no reason, based on organisational culture, why the PA role could not be established within the Australian health system. The use of a mid-level practitioner to assist with efficiency and effectiveness of service is not a foreign concept in Australia. Indeed, Australia already has a number of delegated provider roles, for example anaesthetic nurses, orthoptists, and physiotherapy assistants. In recent decades, medical practitioners themselves have delegated a number of tasks to nurses which used to be the sole province of doctors. Duckett (2005) points out that for this reason it may be more appropriate to refer to a ‘skills shortage’ rather than a ‘workforce shortage’. It is possible that today’s health service demands will be met by a more flexible delegation of tasks rather than greater numbers of a particular professional group (Duckett 2005).

Task delegation and collegial support within clinical teams

Task delegation is different from task substitution, and the AMA (2008) has very clearly stated its support for appropriate task delegation while opposing the idea that other, less qualified providers can be substituted for doctors. This has been a consistent theme expressed by many throughout the Pilot as well.

In a metropolitan specialist context, it was observed that PAs could assist in settings involving high volume and throughout, with process orientated procedures, and as a consistent point of contact and care in otherwise rotational staffing. In addition, there is evidence from the US that PAs who seek a speciality often end up working in highly technical environments with specialised tasks.
While perceiving the potential benefits of having a PA to extend medical provision, most of those who were interviewed would not support the PA role if the intention was to replace doctors, for instance rural GPs, with a PA.

However, the idea that a PA could assist with rural and remote workforce deployment, for both nurses and doctors, by providing additional professional and collegial support was greatly supported. According to respondents, PAs might fit best within rural and remote primary health care in the following ways, all of which involve enhancing the existing workforce rather than replacing any current providers:

- working in a team of two in places where there was previously a sole nurse, to provide collegial support, reduce fatigue by sharing the overnight call, offer opportunities for time off, and attend to chronic disease management allowing the nurse to focus on urgent and emergent care
- working alongside a sole medical practitioner to share the on-call, reduce the need for locums (as the PA could provide locum support with remote supervision while the GP had time off), and assist retention by providing collegial support and reducing isolation
- working within a remote hospital or health clinic to provide medical support to the existing nursing team, potentially reducing the need for RFDS and other fly-in-fly-out doctors, and providing more in-depth and ongoing chronic disease management
- working alongside international medical graduates (IMG) in rural placements, providing them with collegial and professional support as they acclimatise to Australia and as they prepare for and take any required study or exams
- providing an additional medical provider in rural and remote locations who can provide continuity while freeing the doctor to contribute to medical teaching and training, potentially creating additional training positions to accommodate the expected increase in medical graduates.

All of the above suggestions from interview respondents are based on the notion that the PA role is not a substitute for doctors (or nurses), but is an additional support role that could work alongside existing practitioners. It was noted by many in the rural and remote Pilot sites that, while it might be preferable to have an additional doctor, having a PA would still provide much-needed support to the current workforce and would potentially increase retention.

Several doctors suggested that funding for the PA role could be compensated through the reduction of money spent on providing locums for rural and remote locations, as well as the time saved in seeking and coordinating locum placements. ‘Anything that could reduce that [cost] would be helpful.’ Potentially, it was felt that this could also assist with continuity of care for communities while allowing the GP or remote nurse to have a break, and also assist with retention through sharing on-call rosters.

It was recognised that the high quality of the PAs contributed to their ability to work within an environment where their role was unclear, and that this would not necessarily be the same with newly qualified PAs. Greater levels of supervision would be required for a longer period for newly qualified PAs who were entering the clinical team for the first time, particularly in the early years of the role’s establishment when there would be few PA role models.

The health workforce shortage is complex and multi-faceted, and an additional worker – whether a PA, doctor, nurse or paramedic – is not the one single response. A remote nurse remarked that:

\[ \text{The shortage is there. The rural/remote packages have been diminished over the years. Packages for remote placements need to be looked at – it's the same in remote towns as in small communities. They need to start rewarding people for going out.} \]

**Aboriginal and Torres Strait Islander health workforce**

At Wujal Wujal, the PAs were reportedly accepted well by both staff and patients at the health clinic. Due to a reported difficulty in explaining the term ‘physician’s assistant’ to patients, the clinic chose to use the term ‘doctor’s assistant’ in describing the role to the patients. Information was provided to the patient at reception in the form of a laminated sheet explaining the role, and patients were given the choice as to which provider they wished to see: a doctor’s assistant, an Aboriginal health worker, a
nurse, or (when present) a doctor. It was reported that some patients over time did choose on a regular basis to see the PA.

At Wujal Wujal, the staff of the health clinic had consulted with the community, including community elders, at the commencement of the Pilot, and a number of avenues were tried to ensure that people understood what the PA role was. It was suggested, however, that in remote communities the extent of time and information required to ensure people knew what the role was, and what it could offer, would take more time than initially given within the Pilot. This would be something to consider in any future deployment of PAs in remote Aboriginal communities.

At Mt Isa, Normanton and Wujal Wujal, the PAs worked with a large number of Aboriginal or Torres Strait Islander patients in state-funded (and private GP) services. Several stakeholders, however, did suggest that the PA role had much to offer also within the community-controlled sector, and that the role could both bolster the existing health workforce serving Aboriginal and Torres Strait Islander peoples, and provide a career pathway for Aboriginal health workers.

5.4.2 Recruitment and retention

The potential of the PA role in assisting recruitment and retention in metropolitan and rural and remote contexts was observed. However, there was some particular concern expressed that PAs, like other medical graduates, may be attracted to work in more urban areas and would not therefore address the rural health workforce shortage.

_The PA role has much greater potential benefits in regional areas. They can do more, offer valuable clinical and practical assistance, in areas where it is hard to keep doctors and specialists. They would provide something needed and required in those areas, that wouldn't otherwise be available – in [the] metropolitan areas, there is greater potential for overlap._ (doctor)

There were two views, both equally held, on whether the PA role would improve retention in the rural health workforce (or the workforce generally). One view was that having a PA would encourage GPs to remain in rural locations because they would have greater support, and that having a PA available to work with, for instance, a remote nurse and a GP would strengthen the team’s ability to provide more comprehensive services including chronic disease management. The other view was that promoting the PA role would either be at the expense of the nurse practitioner role, or at the expense of the doctor role (for instance deploying PAs rather than doctors because they were less expensive). There is at the moment no evidence that either scenario would be inevitable.

_The evidence from the US suggests that PAs do go rural more often than doctors. PAs have different expectations from doctors – they are less about money and career and more socially driven – so they are more likely to go rural. Also they tend to be older so they are more settled, not perhaps needing to seek a partner or the excitement of the city._ (PA)

_It’s a generalist role which would suit rural medicine. It would make it more attractive to doctors to stay [in the bush] if they had a PA._ (medical supervisor)

It was noted by several people that the PA role would potentially offer a career path to people who would not opt either for nursing or medicine, particularly for army medics, or men who perceive nursing as a ‘feminine’ profession but don’t want (or are not able) to study medicine. ‘Anything that encourages young people to take up health careers, especially boys, or young people with special interests’.

Another suggested that the PA role would be beneficial for people who are ready to leave their current roles, for instance as a paramedic or physiotherapist, which have strong physical demands, but don’t want to leave the health sector.

There was general agreement amongst both doctors and nurses that the role had potential for rural and remote Australia, although there were more varied views regarding its suitability for urban and specialist practice. The workforce shortage is clearly acute in rural and remote areas, whereas in regional and metropolitan areas it is easier to attract staff. At the same time, even by the end of the Pilot there were a number of people, primarily nurses, who were not really sure that a new clinical role was required.
The PA role probably wouldn’t add a lot that remote area nurses don’t already do. What they provide is a medically-focussed assistance role. (nurse)

A number of nurses felt that the role was likely to appeal to nurses who might otherwise have left the workforce, and that it may be an avenue for retaining clinicians who might otherwise be lost to the health service. However, other nurses were concerned that nurses seeking an expanded role would choose the PA role rather than the nurse practitioner role, thus undermining the potential for advanced nursing roles. Both views were fairly equally spread among nurses.

I don’t really know what their job description is but if they can do pretty much the same as a doctor they could be helpful, but why not just increase the number of doctors? If they are talking about taking the pressure off the public health system why not just employ more doctors, train up more doctors, and strengthen the structures that are already there, not add another layer. Train up nurses more – let’s just strengthen the system we’ve already got. I can’t see why they can’t train senior nurses for that role – nurse practitioners rather than PAs – it’s just a name and you could call it anything so why couldn’t you call it – anything – call it clinical nurse or clinical – leave the ‘nurse’ out – just make it a part of the existing structure. (nurse)

The majority of nurses who responded to the post-pilot survey supported establishing the PA role in Queensland Health (63% ‘definitely support’, 13% ‘probably support’) and anticipated that the role would positively impact the health workforce (46% ‘definitely increase’, 21% ‘might increase’).

It has potential to bring new people in – but there would also be some shuffling within the health system. It might be attractive since the training isn’t that long. (nurse)

There was a suggestion that providing an additional mid-level clinical role to parallel the nurse practitioner role will not diminish the latter, but will enhance the acceptance of mid-level clinicians generally, with benefits for both roles.

5.5 Orientation

While all new staff require some sort of induction or orientation to their new working environment, clinicians who are introducing a new role, particularly if new to the health system, will require some additional orientation and support. It appears true from the Pilot that existing staff working with the new team member will also require a more formal introduction to the new role.

Social aspects had a considerable impact upon the Pilot, particularly in the formative first months. The extent to which a PA was welcomed into the clinical environment at their local site, including the care taken with introducing the role to other team members, appears to have been crucial in the establishment process for PAs. Sites differed in the extent to which the PAs were welcomed and introduced to the new work and social environments, the extent to which any hospitality was offered to them outside of work hours, and the extent to which they were provided with in-house training as part of their induction process. Practical aspects, such as finding out about mandated superannuation, or the Australian banking system, were not usually addressed. These were areas where PAs appreciated assistance.

Responses from Pilot participants suggest that future placements of overseas-trained PAs in Queensland could benefit from an orientation that includes a mentoring role which is separate to the role of medical supervisor. The designated mentor could assist with the translation requirements for the PA as well as providing day to day orientation into the logistics of the local site. The mentor could also help to ensure that other clinical staff are informed about the PA role and assist with the integration of the PA role into the clinical team.

There are several reasons why a more structured orientation, including the role of a mentor, may be of assistance.

- Orientation creates a tone for a new PA about how they are valued in a role – The role of the mentor would be to work side-by-side with the PA and provide them with the information they need to function. This would be separate to the medical supervisor, who has more of a delegation role and a different relationship with the PA. The actual requirements of the mentor may be flexible to
suit the environment and needs of the PA. The mentor is likely to be intensive in the first few weeks, when a PA may have a lot of questions, and then be less intensive over time as the PA comes to understand the Australian health system and the local culture. The mentor would need to have the necessary skills to fulfil this role as a peer and be granted time within their schedule to attend to the questions and needs of the PA. One of the useful tasks of the mentor may be to provide the PA with regular opportunities for de-briefs and reflection.

- **Orientation includes 'social' integration** - The mentor could also become a key social contact for the PA, assisting the PA to integrate into the social environment of a department and community. This may require discussions within the clinical team as to the role of the PA so that both nursing and medical staff understand what a PA can and cannot be expected to do. Introductions to other members of the team will of course take place over time, but for the people with which the PA will interact on a day-to-day basis, the PAs need both to be able to share who they are and what they bring, and learn about their new colleagues.

- **Orientation provides PAs with information as they need it** – The PAs who may be deployed from the United States would already be highly skilled, but they would need to know how to work in a new environment. This includes knowing how systems work, where to find things, getting to know the new pathology readings, new names for medication and so on. Simple things like how to use the computer system, or how to forward a phone call can make a difference to how a PA operates in a new environment and how quickly they feel both confident and accepted. A mentor could play a key role in the provision of information to the PA.

- **Orientation establishes clear lines of communication within the team** – Clear lines of communication are important, and the PA will need to know with whom to communicate and how best to do so. As staff turnover is often high, ensuring that PAs know others and that other clinicians understand the PA’s role, requires someone to be sensitive to the transfer of information on an ongoing basis. A mentor, like the medical supervisor, could play a role in ensuring that all staff are familiar with the PA role and, importantly, know who to speak to with any questions or concerns.

### 5.6 Potential deployment of PAs

The majority of staff who responded to the survey support establishing the PA role in Queensland Health (75%), anticipate that the role will positively impact the health workforce (65%), and believe that the benefits will outweigh the drawbacks (67%).

Most also feel that the role will integrate well within the Australian health system (65%), the Queensland health context (69%) and the rural/remote context (71%).

There is some evidence of increased support for the PA role over the life of the pilot. The proportion of staff indicating ‘definite’ support increased significantly from 41% in the pre-pilot survey to 65% in the post-pilot survey[^23]. Staff are also more confident regarding the integration of the PA role within a rural/remote health context (up from 34% to 60% who believe the role will integrate very well). There has been no change over time with respect to perceived impacts on health workforce, the benefits versus drawbacks of the role’s integration, and the ability of the role to integrate within the Australian and Queensland health contexts. Views on these issues have remained mostly positive.

[^23]: Difference significant at a 95% confidence level
Additional qualitative comments from staff who responded to the survey also reflected a positive view on establishing the PA role permanently. Benefits were particularly anticipated in rural and remote regions, in addressing staff shortage, improving patient care, reducing waiting time, and mentoring aboriginal staff workers. However, notable caveats to establishing the role were that there should be clear boundaries of responsibility, a PA should not be a replacement for a doctor, and that establishment of the role should not erode the NP, RIPRN or clinical nursing roles.

(Benefit to establishing the PA role) Reducing workload for medical staff in remote areas, especially the one doctor communities…filling unfilled positions of medical officers in rural areas.

(Drawback) A key issue will be funding and the huge worry that the PAs will replace doctors in areas of isolation. This cannot happen as it will place both patients and nurses in a more vulnerable position than they currently are.

Most also felt that the role will integrate well within the Australian health system (33% ‘very well’, 38% ‘fairly well’), the Queensland health context (33% ‘very well’, 42% ‘fairly well’) and particularly the rural/remote context (54% ‘very well’, 33% ‘fairly well’%)

One in two nurses (54%) felt that the PA role had complemented existing roles; one in three (33%) thought some aspects of the role had overlapped with existing roles been some overlap. Others were unsure.

The Queensland Nursing Union (QNU) continues to oppose the establishment of the PA role, considering it premature while the nurse practitioner role is still growing and has not been evaluated comprehensively. The QNU’s concern remains that more needs to be done to encourage nurses to return to the workforce. The AMA has also reserved its support for the PA role, although relatively open comments have been received in the course of the Pilot (see section 5.2). At the same time, practitioners who have worked with the PAs have clearly been open to the role’s potential to assist their own workload, and have been honest about the way in which the role may or may not contribute to the workforce of the future.

It is clearly important that any deployment of PAs is based on evidence of need, and ensuring that PAs are being placed where workforce shortages are greatest may alleviate some concerns regarding opportunities for other health professionals.
At Cooktown, the PAs were initially added to the pool of doctors who worked across both inpatient and outpatient departments. As the hospital was already fully staffed, this did not assist with role definition, and some doctors and nurses expressed concerns that adding PAs to the staff meant there were too many medical providers on the team for the available work.

_We are overstaffed with doctors and I think that’s tainted the trial. The PAs would have shown their skills more quickly if they had been fully used immediately._ (nurse)

However, early in the Pilot it was decided that the PAs would work primarily in the outpatient and emergency departments, leaving the doctors to focus on the inpatient ward. It was reported by both doctors and nurses that this system change had improved the work allocation.

_The system change was helpful because otherwise there were too many people chasing the work. The worst thing you can do is take away people’s work._ (nurse)

Any future deployment of the PA role, whether in a further demonstration project or in a full adoption of the role, needs to develop a sustainable financial model. The costs of the Pilot were fully borne by Queensland Health. Funding models for the future would need to take into account the costs of the PAs themselves (particularly if imported from the US for the foreseeable future), the costs of training for future cohorts, and the potential cost benefits from reduced locum requirements, staff retention, and improved patient throughput. Additional consideration would need to be given to funding models for private health services such as rural and remote general practice, particularly where the local GP also provides medical services to the state-funded hospital.

There is no data from the Pilot which would provide a basis of evidence for this model, so further research would need to be undertaken in this area. As noted above, some respondents considered that the costs of the PAs potentially would be offset by the reduced costs of remote locums, staff turnover, and loss of knowledge. A detailed economic analysis would need to be conducted before further insight could be gained regarding the potential cost benefits of the PA role.

5.7 Legislative and regulatory frameworks

5.7.1 Regulatory framework

The PAs participating in the Pilot are accredited through the US National Commission on Certification of Physician Assistants (NCCPA). The NCCPA certification demonstrates that the PA has received a qualification from an accredited training program and that the PA has passed the mandatory Physician Assistant National Certifying Exam. PAs are required to re-certify every six years by undertaking continuing medical development activities and passing a re-certification exam.

For the purposes of the Pilot, and in the absence of any regulatory framework for PAs within Australia, Queensland Health adopted a non-statutory approach, creating a Pilot-specific framework based on those which govern other non-regulated health workers (eg social workers, paramedics, and others). This included a set of standards for recruitment and management of Physician’s Assistants; a detailed job description, including limitations to practice; the practice plans (discussed earlier in this report); and the supervisors’ reports to the Quality Assurance Committee (itself a body established to ensure compliance with the clinical quality and safety requirements of the Pilot).

The list of prohibitions contained in the standards for the Pilot are worth noting. The Physician’s Assistant may not:

- sign a death certificate. However, a Physician’s Assistant may declare ‘life extinct’ in lieu of the supervising Medical Officer
- complete or sign a prescription that is eligible for PBS reimbursement either through the PBS access scheme (Queensland Health pharmacies) or that will be filled by a private pharmacy
- complete or sign a prescription for highly specialised drugs that requires medical specialist authority


- physician’s assistants may not complete or sign a request for private pathology tests eligible for Medicare rebates covered by the pathology table of the Health Insurance Act 1973 or that would otherwise be valid if requested by a registered Medical Practitioner holding a valid Medicare Australia Provider Number for a private patient
- sign a Workers Compensation Form or Medical Certificate for a Motor Vehicle Driver’s Licence
- sign forms that attract a Commonwealth benefit (eg Centrelink)
- perform any medical service, procedure, function or activity which is outside of the assigned role
- work without access to a nominated supervisor.

All of these prohibitions are in place due to some need for:

- national or state certification that the PA is qualified to make legal or binding commitments, eg certifying death or eligibility for benefits such as workers compensation or Centrelink
- national registration to enable access to the PBS or MBS
- national or state certification that the PA is able to practice medicine within an agreed scope of practice.

Within Australia, national registration was introduced into law in 2009 and will be in place from 1st July 2010 for ten health professions: chiropractic, dentistry, medicine, nursing and midwifery, osteopathy, optometry, pharmacy, podiatry, psychology, and physiotherapy. A new agency, the Australian Health Practitioner Regulation Agency, has been established to bring together the regulatory processes previously carried out by numerous state, territory and federal profession-specific certifying bodies. The aim is to streamline and simplify professional regulation across the country, creating more consistent requirements for each profession and also making it easier for health providers to move from one state or territory to another.

One of the key distinctions between the PA role and that of other mid-level health professional roles is the extent of licensing and registration which is required for the PA role in the United States. The requirement to re-certify every six years promotes a high standard of practice which is consistent nationally. When PAs were first established in the US they were certified through medical boards, before the PA-specific agency, the NCCPA, was formed. Should the PA role be continued within Australia, it would be reasonable to consider aligning the registration of PAs with that required of medical practitioners, and creating a process for this certification through the Australian Health Practitioner Regulation Agency.

Continuing medical education requirements would also need to be coordinated by a central organisation. As the PA is usually a generalist role, it may be that one of the professional colleges, such as the Australian College for Rural and Remote Medicine (ACRRM), which already provides continuing medical education for general practitioners, may be most appropriate to lead this. A decision would have to be made as to whether one body should oversee all PA professional development, or whether it could be aligned with the area in which the PA was working, so that a PA who was specialising in an area would have their professional development monitored by the most appropriate professional college.

5.7.2 Legislation requirements

In order for the PAs to practice in Queensland, legislative changes were required to the Health (Drugs and Poisons) Regulation 1996 to allow PAs to prescribe, supply, carry or administer pharmaceuticals within the scope of their practice. These changes were approved at the end of 2008 in preparation for the Pilot. The wording of the legislation allows flexibility for PAs to prescribe and administer drugs within the scope of their practice as agreed by the supervisor. This legislation, now approved, is not time-limited by the Pilot and therefore provides a legislative framework for PA practice should the position be continued within Queensland.

The greater limitation on PA prescribing was occasioned not by the state legislation but by the Federal requirements regarding access to medications under the Pharmaceutical Benefits Scheme (PBS).
Medications are only entitled to receive the PBS subsidy if they are prescribed by a clinician who has been given a PBS provider number. The prohibitions contained in the standards for the PA Pilot state that the PA may not complete or sign a prescription that is eligible for PBS reimbursement either through the PBS access scheme (Queensland Health pharmacies) or that will be filled by a private pharmacy. The implications for the PA pilot have been two-fold.

- Although PAs are legally able under the Queensland legislation to prescribe and administer drugs within the in-patient hospital setting, because they do not have a PBS provider number, any prescription written by them can not be filled under the PBS. This has meant that the supervisor has had to write out the script for the PA whenever a prescription is required.
- PAs are able to prescribe drugs for patients in an outpatient or general practice setting under the legislation. However, unless the prescriptions are written and signed by a doctor with a PBS provider number, the patient would be required to pay the full amount of the medication, rather than receive the subsidy which the PBS provides.

The access to a PBS provider number is restricted to registered medical professionals. In the 2009 Federal budget, it was announced that nurse practitioners would be able to access PBS provider numbers from October 2010. However, as one respondent noted, nurse practitioners have been seeking this access for years, so it may take some time before PAs are able to gain access to PBS prescriber numbers. In the meantime, therefore, the limitations on PA prescribing would need to be considered in future deployment and supervision decisions.

In the United States, PAs are legally responsible for their own practice, as they practice as licensed and certified health professionals. For the purposes of the Pilot, the PAs functioned under the authority of a medical supervisor who was registered within the state and had received a national Medical Benefits Scheme (MBS) provider number. As medical treatment must be supplied by a clinician who holds an MBS number, during the Pilot the PAs were not recognised as practicing in their own right and the supervising medical officer was legally responsible for all assessment, diagnosis and/or treatment provided. While this allowed the Pilot to ensure that the new clinical role was closely supervised and monitored, it also placed an additional responsibility upon the supervising doctor, and it is reasonable that more sustainable arrangements would be required should the PA role be continued within Queensland.

5.8 Summary

The ability to work with different clinical providers and to play an integrating role appears to be one of the strengths of the PA role. While a few nurses and doctors continued to feel that the role was not clearly defined, others felt that the lack of definition in itself was a benefit as it allowed the PA more flexibility than other roles. The ability to bridge the nursing and medical roles was seen by many as a positive aspect of the PA role. PAs appeared to relate well to both disciplines, and to have capability to perform duties that might have been undertaken by either a nurse or a doctor, such as plastering and suturing.

There were a number of aspects of the Pilot which facilitated the integration of the PAs into their local environment. These included the leadership provided by medical supervisors, the extent of welcome and induction locally, identified need, and ensuring a good match between PA expertise and clinical environment.

Overall, the majority of doctors over the course of the year came to appreciate the benefits of the PA role in terms of workload, fatigue management, appropriate delegation of tasks, and freeing the doctor to focus on more complex clinical tasks as well as on teaching.

In general, most nurses who worked with the PAs recognised the potential value of the role although concerns remained regarding potential increase of nursing workload, competition with the nurse practitioner role, and role clarity.

Those who remained sceptical regarding the introduction of the PA role did not fault the individual PAs or their professionalism. The background and experience of the Pilot PAs was undoubtedly important, as was the breadth and depth of their previous professional experience. All of the PAs in the Pilot had
experience in working with diverse communities, including in developing countries, across cultures, and/or with disadvantaged populations. Staff at the sites became more confident regarding the PAs’ capabilities as they came to appreciate the expertise of the PAs.

However, the research team did occasionally hear from nurses from the same teams, working in the same environments, who perceived the PA role differently, with one considering that the PA had increased the nursing workload, and one considering that the PA had reduced the workload. In contrast, another noted that in the context of inpatient bed pressures, ‘the ability to assist discharge patients, and ensure they are better prepared for discharge, is important’. This theme remained throughout the Pilot; while it was recognised that PAs could lead to greater efficiencies, there were reportedly infrastructure, staffing or financial limitations which constrained the realisation of some of those efficiencies.

While most participants expressed positive views of the PAs, it was clear that clinical staff, and others interviewed during the Pilot, felt the need for more evidence and further information about the PA role in the Queensland health system regarding the scope of practice, training and accreditation, and role definition in relation to other medical and nursing roles. These and other questions remain to be answered should the role be established permanently.
6 Conclusions

6.1 Is this experience replicable?

A question posed by a number of people throughout the year is whether the PA role has been successful in the Pilot because of:

- the personal attributes of the particular PAs recruited and participating,
- their particular senior and clinical expertise
- the nature of the role itself, or
- the culture of the American health system in which the PA role was designed.

In other words, if these PAs were effective, efficient and excellent clinicians, as agreed by all those who worked with the PAs, were these characteristics of their personal attributes or the system in which they trained? There is, of course, no simple answer. The five PAs who participated in the Pilot brought their own training, experience, knowledge to the sites as well as their own cultural background and approach. One PA noted that the US system is ‘more competitive, with a greater focus on customer satisfaction.’ She also noted that PAs are trained in the US to focus on the person through study of the behavioural sciences. Australian training programs for PAs are being designed following the principles of the US-based education programs, which may suggest that Australian-trained PAs would be prepared with the same focus on clinical quality, service delivery, and team work.

In the end, however, comparisons with the US health system are not appropriate. The Australian health system has already accepted the use of task delegation in a number of disciplines and contexts. The PA Pilot has demonstrated that this delegated medical role is accepted by doctors. It has also demonstrated that within the site-specific contexts of the Pilot, the role has been accepted and valued as a beneficial contribution to the health care team. Where there are concerns, these have focussed primarily on role definition, particularly with regard to the nurse practitioner or RIPRN role; medical training, particularly on ensuring adequate placements for the expected increase of medical graduates; and appropriate deployment to supplement the existing health workforce.

New Australian PA graduates, or other experienced, US-trained PAs, would potentially provide the same benefits to clinical teams which have been demonstrated in the Pilot. It is likely that they would bring the same challenges as well, including the need for role clarity, comprehensive team communication when introducing the role including a clearly articulated scope of practice, ongoing education about the role for patients and new staff, and a regulatory framework which includes accreditation and continuing medical education. The restrictions on prescribing would also remain problematic unless resolved through legislation.

6.2 Should Queensland Health employ PAs?

As noted throughout the report, there were clear limitations with the Pilot and its ability to provide concrete evidence as to the potential contribution of the PA role to the wider Queensland health system. The number of PAs and of sites were both small. The evaluation focussed on qualitative data provided through observation and interviews due to the emphasis in the evaluation brief on understanding the organisational and team implications of introducing the PA role. In addition, little quantifiable system data was available.

However, what can be said about the PA Pilot is as follows:

- at all sites where they were deployed, the PAs were considered to have contributed to improved system functioning through appropriate task delegation and streamlined patient processes
- clinicians who had worked with the PAs – nurse and doctors – voiced a balanced support for the role tempered with concerns to see a continued commitment to the existing health workforce, particularly junior doctors and nurse practitioners
the PA role was considered acceptable to the doctors who were in contact with the Pilot, and by the end of the Pilot all doctors who were interviewed considered that the role had potential to assist medical workforce pressures through task delegation under supervision.

despite initial nursing concerns, the majority of those nurses who worked with the PAs reported that they could see a potential benefit to the health system from utilising PAs appropriately as additional mid-level clinicians.

patients were satisfied with the care they received from PAs.

A recent report (Ashner 2009) has identified six key elements of PA practice establishment which are required for successful implementation of the PA position in the United States. These elements need to be enshrined in legislation and regulation in order to provide the authority and accountability structures in which PAs and their supervisors are empowered to act. The six elements are:

- "licensure" as the regulatory term
- scope of practice determined on site
- adaptable supervision requirements
- full prescriptive authority
- chart co-signature requirements determined at the practice
- number of PAs a physician can supervise determined at practice level." (Ashner 2009)

The need for all of these system supports are borne out by the experience within the Pilot and would need to be established before the role is established within the Australian health system. These elements should be tested through further research within the Australian context. Such research may include the new cohort of Australian-trained PAs which will shortly emerge from the University of Queensland as well as US-trained PAs, to explore the introduction of newly-trained PAs and their impact on the health care team. Other research which would be useful would be a detailed comparison, including cost-benefit, of similar mid-level provider positions, such as the RIPRN and nurse practitioner roles. Any continuation of the PA role will also require establishment of a regulatory framework to ensure patient safety and the protection of professional standards.

Finally, it would be useful to re-assess the perceptions of the clinical staff at all Pilot sites three months after the Pilot ended, to ascertain whether the impressions recorded through interviews changed once the PAs withdrew from the Pilot sites. Were they missed? What, if any, gaps have the PAs left behind now that the Pilot has ended, and how are these managed by the staff?
7 References


Australian Medical Students Association 2008, AMSA submission to the national health and hospital reform commission, AMSA, Canberra.


National Health and Hospitals Reform Commission 2009, A healthier future for all Australians, final report of the National Health and Hospitals Reform Commission, Commonwealth of Australia, Canberra.


Roblin, D, Becker, E, Adams, E, Howard, D, & Roberts, MH. ‘Patient satisfaction with primary care: does type of practitioner matter?’, *Medical Care*, vol. 42, no.6, pp. 579-590.


Appendix A List of stakeholders consulted
A.1 Organisations consulted for the evaluation

Representative of the following organisations were interviewed during the evaluation:

Australian College of Rural and Remote Medicine (ACRRM)
Australian Medical Association of Queensland (AMAO)
Department of Health Western Australia
Directors of Medical Services Advisory Committee (DOMSAC)
James Cook University (JCU)
Mount Isa Centre for Rural & Remote health (MICRRH)
Physician Assistant Steering Committee
Queensland Aboriginal & Islander Health Council (QAIHC)
Queensland Health
Queensland Nursing Council (QNC)
Queensland Nursing Union (QNU)
Royal Australasian College of Physicians (RACP)
Royal Australasian College of Surgeons (RACS)
Royal College of Nursing Australia (RCNA)
Rural Doctors Association of Queensland (RDAQ)
South Australia Health (SA Health)
Staff and other stakeholders at Cooktown, Mt Isa Hospital, Normanton Hospital, Princess Alexandra Hospital, Wujal Wujal Primary Health Centre
University of Queensland (UQ)
Appendix B  General interview guide
Thank you for agreeing to be interviewed and to contribute to the evaluation of the Queensland Physician’s Assistant (PA) Pilot.

Urbis has been contracted by Queensland Health to evaluate the PA Pilot. Urbis is an Australian firm with over 30 years of experience in social and health policy, research and evaluation. Urbis have worked in all areas of social and health research across Australia, including significant research into health service delivery, health workforce and training issues, and the planning, development and evaluation of new health services and facilities. The objective of the evaluation is to assess what contribution the PA role may make to health service delivery in Queensland, what impact the role has on patient care, how well the role fits within existing clinical care teams, and what may be the future potential for the role in Queensland Health.

We are very interested to hear your views on the role of the PA in the context of the Queensland health system. Our discussion will focus on the areas outlined below, and we are particularly interested to hear your views on how well the PA role fits within the existing health services in Queensland.

*Your comments will remain confidential to our team and comments will not be directly attributed within the final report.*

Should you have any further comments, concerns or questions following our interview today, please contact Catherine Zhang at Urbis on 07 3007 3807.

1. **The Pilot and its process**
   a. the progress of the Pilot, expectations for the Pilot, benefits or challenges
   b. the process of integration of the PA into the team, any transition issues for the PA or the team,
   c. clarity of role and delineation from other clinical roles, acceptance of the role within the clinical setting
   d. enablers and barriers to successful implementation of Pilot

2. **Impact of the PA role on service delivery**
   a. the impact of the PA role on service delivery, on the clinical team, and on workload
   b. patient and community response to the PA role, and level of patient satisfaction
   c. quality of clinical care
   d. cultural, social or clinical issues regarding the introduction of the PA role within the health service setting

3. **The future of the role within Queensland Health**
   a. whether the PA role is appropriate within the Queensland health system and, if so, where the PA role will be most effective
   b. barriers and enablers to sustainability of the role in Queensland Health
   c. potential impact of the PA role on long-term health workforce capacity
   d. implications for clinical education and training of continuing the PA role
Appendix C  Results of patient and staff surveys
C.1 Pre-pilot and post-pilot staff survey

C.1.1 Profile of participating staff

Sample structure

A total of 59 staff completed the pre-pilot surveys: more than half were from Cooktown Multipurpose Health Service (n=32, 54%, including one from Wujal Wujal Primary Health Centre); a third were from Princess Alexander Hospital (n=19, 32%), and eight were from Mt Isa Hospital (14%). Fewer staff completed the post-pilot survey (n=40), but there was a more even mix of responses from each location (11 in Cooktown, 15 in Mt Isa and 14 in PAH).

Pre-pilot surveys were completed by staff in a range of roles. Most commonly, survey responses were from in nursing roles (n=20, 34%), followed by respondents from administration or management (n=15, 25%). There were also nine medical staff and 14 staff in other roles such as allied health, community health, counselling, pharmacy, radiography and operational services. In the post-pilot surveys, a relatively higher proportion were completed by nursing staff (n=24, 60%), compared to medical staff, (n=4, 10%), administrative staff (n=7, 18%) and other staff (n=5, 13%).

In both surveys the majority of responses were from female staff (73% pre-pilot, 78% post-pilot). A range of ages were represented. Most, staff who responded to the survey attained their most relevant qualification in Queensland (73% pre-pilot, 63% post-pilot).

The majority of survey participants had been exposed to media coverage regarding the PAs (37%). Mostly the coverage was described as positive (53%), but others mixed (17%), neutral (17%) and negative (10%). Given this mix it is unlikely that media coverage will have biased responses.

Due to the small numbers of survey responses, it is not appropriate to analyse results at a staff role level.

Table 6 – Number of participants

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>Pre survey</th>
<th>Post survey</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Cooktown</td>
<td>32</td>
<td>54%</td>
</tr>
<tr>
<td>Mt Isa</td>
<td>8</td>
<td>14%</td>
</tr>
<tr>
<td>Princess Alexandra Hospital</td>
<td>19</td>
<td>32%</td>
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<td>Total</td>
<td>59</td>
<td>100%</td>
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Table 7 – Role of participants

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<th>Post survey</th>
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<td>Frequency</td>
<td>Percentage</td>
</tr>
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<td>Medical</td>
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<td>15%</td>
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<tr>
<td>Nursing</td>
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</tr>
<tr>
<td>Administration/ Management</td>
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<td>25%</td>
</tr>
<tr>
<td>Other</td>
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<td>24%</td>
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<td>2%</td>
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<tr>
<td>Total</td>
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<td>100%</td>
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Table 8 – Gender

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<tbody>
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<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>27%</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
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<td>Total</td>
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Table 9 – Age breakdown of participants

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</thead>
<tbody>
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<td>Frequency</td>
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</tr>
<tr>
<td>18-24</td>
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<td>45-54</td>
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<td>22%</td>
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<tr>
<td>55-64</td>
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<td>65+</td>
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<td>2%</td>
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<td>Total</td>
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Table 10 – Location of most relevant qualification

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<td></td>
<td>Frequency</td>
<td>Percentage</td>
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<tr>
<td>Queensland</td>
<td>43</td>
<td>73%</td>
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<tr>
<td>Another State/Territory in Australia</td>
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<td>22%</td>
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<tr>
<td>Overseas</td>
<td>3</td>
<td>5%</td>
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<td>Total</td>
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Table 11 – Timing of survey responses (pre-pilot only)

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<td>The PA Pilot is yet to commence</td>
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<td>3%</td>
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<td>The PA Pilot commenced within the last week</td>
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<td>The PA Pilot commenced within the last month</td>
<td>20</td>
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<td>Total</td>
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### C.1.2 Establishment of the PA role

#### Table 12 – Support for the establishment of the PA role in Queensland Health

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</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
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<tr>
<td>Definitely support establishing the</td>
<td>24</td>
<td>41%</td>
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<tr>
<td>PA role in Queensland Health</td>
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<tr>
<td>Probably support establishing the PA</td>
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<td>31%</td>
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<tr>
<td>role in Queensland Health</td>
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<td>Probably not support establishing</td>
<td>4</td>
<td>7%</td>
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<tr>
<td>the PA role in Queensland Health</td>
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<tr>
<td>Definitely not support establishing</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>the PA role in Queensland Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>10</td>
<td>17%</td>
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<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
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#### Table 13 – Impact of establishing the PA role on health workforce

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<tbody>
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<td></td>
<td>Frequency</td>
<td>Percentage</td>
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<td>23</td>
<td>39%</td>
</tr>
<tr>
<td>workforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might increase the health workforce</td>
<td>15</td>
<td>25%</td>
</tr>
<tr>
<td>Would have no impact on health</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>workforce levels</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might decrease the health workforce</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Would definitely decrease the health</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>workforce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>14</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>
C.1.3 Impacts of the PA role

Table 14 – Impact of the PA role in the workplace (anticipated versus observed)

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>Overall patient service</th>
<th>Overall quality of care</th>
<th>Overall safety of care</th>
<th>Average waiting time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre survey</td>
<td>Post survey</td>
<td>Pre survey</td>
<td>Post survey</td>
</tr>
<tr>
<td>Positive impact</td>
<td>73%</td>
<td>83%</td>
<td>61%</td>
<td>80%</td>
</tr>
<tr>
<td>No impact</td>
<td>10%</td>
<td>8%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>Negative impact</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Can't say/unsure</td>
<td>17%</td>
<td>10%</td>
<td>22%</td>
<td>13%</td>
</tr>
<tr>
<td>Data missing</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 15 – Impact of the PA role in the workplace (continued)

<table>
<thead>
<tr>
<th>Patient access to appropriate health providers</th>
<th>The number of patients that can be seen in a day</th>
<th>Provision of information to patients</th>
<th>Patient satisfaction with services</th>
<th>Appropriate use of staff skills and specialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive impact</td>
<td>63%</td>
<td>65%</td>
<td>66%</td>
<td>65%</td>
</tr>
<tr>
<td>No impact</td>
<td>12%</td>
<td>10%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Negative impact</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Can't say/unsure</td>
<td>20%</td>
<td>25%</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Data missing</td>
<td>2%</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 16 – Impact on staff morale

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>(anticipated) Pre survey</th>
<th>(observed) Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Large improvement in staff morale</td>
<td>8</td>
<td>14%</td>
</tr>
<tr>
<td>Some improvement in staff morale</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>No impact on staff morale</td>
<td>9</td>
<td>15%</td>
</tr>
<tr>
<td>Some decline in staff morale</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Large decline in staff morale</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Can't say/ unsure</td>
<td>19</td>
<td>32%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 17 – Impact on personal morale

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>(anticipated) Pre survey</th>
<th>(observed) Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Large improvement in personal morale</td>
<td>8</td>
<td>14%</td>
</tr>
<tr>
<td>Some improvement in personal morale</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>No impact on personal morale</td>
<td>19</td>
<td>32%</td>
</tr>
<tr>
<td>Some decline in personal morale</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Large decline in personal morale</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>10</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 18 – Adjustment to working with PAs

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>(anticipated) Pre survey</th>
<th>(observed) Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Very easy to adjust</td>
<td>13</td>
<td>22%</td>
</tr>
<tr>
<td>Fairly easy to adjust</td>
<td>28</td>
<td>47%</td>
</tr>
<tr>
<td>Fairly difficult to adjust</td>
<td>7</td>
<td>12%</td>
</tr>
<tr>
<td>Very difficult to adjust</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>10</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 19 – Fit of the PA role in health service

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>(anticipated) Pre survey</th>
<th>(observed) Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>The PA role will mostly complement existing roles</td>
<td>19</td>
<td>32%</td>
</tr>
<tr>
<td>Some aspects of the PA role will overlap with existing clinical roles</td>
<td>18</td>
<td>31%</td>
</tr>
<tr>
<td>The PA role will mostly replicate existing clinical roles</td>
<td>9</td>
<td>15%</td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>13</td>
<td>22%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Table 20 – Impact on personal workload

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>(anticipated) Pre survey</th>
<th>(observed) Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Large reduction in my workload</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Some reduction in my workload</td>
<td>16</td>
<td>27%</td>
</tr>
<tr>
<td>No impact on my workload</td>
<td>21</td>
<td>36%</td>
</tr>
<tr>
<td>Some increase in my workload</td>
<td>11</td>
<td>19%</td>
</tr>
<tr>
<td>Large increase in my workload</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>9</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>

### C.1.4 Perspectives of the future

### Table 21 – Perceived impact of the PA role in health service

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>Pre survey</th>
<th>Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequencies</td>
<td>Percentage</td>
</tr>
<tr>
<td>The benefits will far outweigh the drawbacks</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>The benefits will outweigh the drawbacks</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>There will be an equal balance of benefits and drawbacks</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>The drawbacks will outweigh the benefits</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>The drawbacks will far outweigh the benefits</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Can’t say/ unsure</td>
<td>9</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 22 – Anticipated integration within health system

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>The Australian health system</th>
<th>The Queensland health context</th>
<th>A rural/remote health context</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre survey</td>
<td>Post survey</td>
<td>Pre survey</td>
</tr>
<tr>
<td>Integrate very well</td>
<td>29%</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Integrate fairly well</td>
<td>36%</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>Neutral</td>
<td>14%</td>
<td>18%</td>
<td>12%</td>
</tr>
<tr>
<td>Not integrate well</td>
<td>5%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Not integrate at all</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Can't say/unsure</td>
<td>17%</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Data missing</td>
<td>0%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>
C.1.5 Media exposure

Table 23 – Exposure to media discussing the PA role

<table>
<thead>
<tr>
<th>Base N=59 (Pre); N=40 (Post)</th>
<th>Pre survey</th>
<th>Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>In Australian media (including TV, radio, newspapers and associated websites)</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>In local media (such as local newspapers or radio and associated websites)</td>
<td>12</td>
<td>20%</td>
</tr>
<tr>
<td>In International media (including TV, radio, newspapers and associated websites)</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>In health related blogs</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>In medical journal articles or papers</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Word of mouth</td>
<td>20</td>
<td>34%</td>
</tr>
<tr>
<td>Other (Please specify )</td>
<td>7</td>
<td>12%</td>
</tr>
<tr>
<td>No, I haven’t seen, read or heard anything about the PA role</td>
<td>18</td>
<td>31%</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 24 – Nature of coverage of the PA role

<table>
<thead>
<tr>
<th>Base N=41 (Pre); N=21 (Post)</th>
<th>Pre survey</th>
<th>Post survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Mainly positive</td>
<td>21</td>
<td>51%</td>
</tr>
<tr>
<td>Mainly negative</td>
<td>3</td>
<td>7%</td>
</tr>
<tr>
<td>Mainly neutral</td>
<td>8</td>
<td>20%</td>
</tr>
<tr>
<td>Mixed</td>
<td>7</td>
<td>17%</td>
</tr>
<tr>
<td>Data missing</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>100%</td>
</tr>
</tbody>
</table>

C.2 Patient survey

C.2.1 Profile of participating patients

A total of 94 patients completed surveys by the end of May 2010. Approximately a quarter of these (22) were completed in November 2009, while the remainder were completed between March and May 2010. The majority of surveys were completed by patients at Princess Alexandra Hospital (n=42, 45%) and Cooktown Multipurpose Health Service (n=37, 39%). The remaining fifteen surveys were completed by patients at Mt Isa Hospital (n=4), Normanton Hospital (n=9) and the Karumba Heath Centre (n=2).

Patients representing a wide range of ages completed the survey, but those aged between 45 and 75 years accounted for the majority of survey responses (67%). There was an even mix of female and
male participants (47%, 47%)\(^{24}\). Ten participants (11%) identified as Aboriginal and/or Torres Strait Islander.

Table 25 – Number of participants

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Princess Alexandra Hospital</td>
<td>42</td>
<td>45%</td>
</tr>
<tr>
<td>Mt Isa Health Service</td>
<td>15</td>
<td>16%</td>
</tr>
<tr>
<td>Cooktown Health Service</td>
<td>37</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 26 – Health service site

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Princess Alexandra Hospital</td>
<td>42</td>
<td>45%</td>
</tr>
<tr>
<td>Mt Isa Hospital</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Normanton Hospital</td>
<td>9</td>
<td>10%</td>
</tr>
<tr>
<td>Karumba Health Centre</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Cooktown Multipurpose Health Service</td>
<td>37</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 27 – Timing of survey completion

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Nov 2009</td>
<td>22</td>
<td>23%</td>
</tr>
<tr>
<td>30 May 2010</td>
<td>72</td>
<td>77%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 28 – Age breakdown

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24 years</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>25 - 34 years</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>35 - 44 years</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>45 - 54 years</td>
<td>18</td>
<td>19%</td>
</tr>
<tr>
<td>55 - 64 years</td>
<td>20</td>
<td>21%</td>
</tr>
<tr>
<td>65 - 75 years</td>
<td>25</td>
<td>27%</td>
</tr>
<tr>
<td>75 and over</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Data missing</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^{24}\) Six respondents did not provide gender and age details.
Table 29 – Gender

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>44</td>
<td>47%</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>47%</td>
</tr>
<tr>
<td>Data missing</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 30 – Whether identified as Aboriginal and/or Torres Strait Islander

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer not to day</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>11%</td>
</tr>
<tr>
<td>No</td>
<td>75</td>
<td>80%</td>
</tr>
<tr>
<td>Data missing</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

C.2.2 Consultation experience

Table 31 – Waiting time compared with last visit

<table>
<thead>
<tr>
<th>Base N=66</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much shorter this time than last time</td>
<td>24</td>
<td>36%</td>
</tr>
<tr>
<td>A little bit shorter this time than last time</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>About the same as last time</td>
<td>28</td>
<td>42%</td>
</tr>
<tr>
<td>A little bit longer this time than last time</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Much longer this time than last time</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>I'm not sure</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 32 – Satisfaction with the quality of care

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>86</td>
<td>91%</td>
</tr>
<tr>
<td>Fairly satisfied</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Can't remember or not sure</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 33 – Willingness to see a PA in the next visit

<table>
<thead>
<tr>
<th></th>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely willing</td>
<td></td>
<td>86</td>
<td>91%</td>
</tr>
<tr>
<td>Probably willing</td>
<td></td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Can't say/ not sure</td>
<td></td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 34 – Care from PA compared to previous experience

<table>
<thead>
<tr>
<th></th>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot better than the care you usually receive</td>
<td></td>
<td>33</td>
<td>35%</td>
</tr>
<tr>
<td>A little better than the care you usually receive</td>
<td></td>
<td>15</td>
<td>16%</td>
</tr>
<tr>
<td>Neither better nor worse than the care you normally receive</td>
<td></td>
<td>36</td>
<td>38%</td>
</tr>
<tr>
<td>Can't say/ not sure</td>
<td></td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Data missing</td>
<td></td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 35 – Information given by PA about health condition

<table>
<thead>
<tr>
<th></th>
<th>Base N=94</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much</td>
<td></td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>As much as wanted</td>
<td></td>
<td>84</td>
<td>89%</td>
</tr>
<tr>
<td>Not enough</td>
<td></td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Can't remember/ not sure</td>
<td></td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>94</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 36 – Rating of PA’s care

<table>
<thead>
<tr>
<th>Base N=94</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Can’t recall/ not sure</th>
<th>Data missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>The courtesy of the Physician’s Assistant</td>
<td>67%</td>
<td>26%</td>
<td>5%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>The way the Physician’s Assistant explained things to you</td>
<td>65%</td>
<td>26%</td>
<td>6%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>The way the Physician’s Assistant listened to you</td>
<td>60%</td>
<td>29%</td>
<td>9%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>The Physician’s Assistant understood your problem</td>
<td>65%</td>
<td>24%</td>
<td>7%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>The way the Physician’s Assistant respected your cultural or religious needs</td>
<td>33%</td>
<td>17%</td>
<td>11%</td>
<td>2%</td>
<td>36%</td>
<td>1%</td>
</tr>
<tr>
<td>Overall, the way the Physician’s Assistant responded to your concerns or comments</td>
<td>65%</td>
<td>26%</td>
<td>7%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>