

Issue Paper for Bundaberg Hospital Commission of Inquiry

Enhanced Clinical Roles

June 2005

1. EXECUTIVE SUMMARY

The document: *Smart State: Health 2020* and recent reports from the Australian Health Workforce Officials Committee (AHWOC) identify the key challenges facing the health system in the coming two decades as:

- meeting the needs of a growing and ageing population
- meeting health care needs in the context of declining workforce participation rates
- responding to the rapid advances in scientific and technical tools
- managing the growing prevalence of chronic and complex conditions/ disease
- escalation in consumer's knowledge and their expectations of the health service
- the increasing cost of health care
- the opportunities and threats presented by globalisation.

These challenges require fundamental and substantial changes to the current system of health service delivery in order to achieve quality health outcomes, and financial and resource sustainability. Workforce planning is a key component in planning future health services.

Workforce planning is the process of estimating the required health workforce to meet future health service requirements and the development of strategies to meet these requirements. Defining and re-defining / reforming workplace roles and tasks is one component of workforce planning.

Opportunities to utilise the skills of our current workforce to an extended capacity, explore the development of new roles and support the unregulated workforce to take on substitution roles are currently being explored and piloted within Queensland.

Advanced nursing roles, including the Nurse Practitioner role, have been trialled and implemented to varying degrees both in Australia and overseas. Since 1999 Queensland Health has implemented a number of advanced practice nursing roles including: Rural and Isolated Practice Endorsed Nurse (RIPEN) and the Sexual and Reproductive Health Nurse.

In 2003, Queensland Health trialled the nurse practitioner role in four sites. A report on the trial was published in December 2003. The report identified that nurse practitioners provided a safe and effective health service and recommended the implementation of the role in Queensland.

A Nurse Practitioner (NP) is an experienced registered nurse educated to function autonomously and collaboratively in an expanded clinical role. The educational requirement is a Masters-level degree. Demonstration sites are now underway to determine the effectiveness of nurse practitioners in specific clinical roles.

In addition to extended and advanced roles for nurses, there are opportunities to expand the roles of other health professionals such as allied health and support staff.

Current extended roles of allied health professionals are already being utilised and could be further expanded in Emergency Department and other medical and community settings. The mental health workforce already reflects an expanded role. Further opportunities have been identified in the national and international literature in many different clinical and geographic settings that could be translated into the Queensland Health environment.

Within the support workforce there is also the potential to develop and upskill the unregulated workforce to take on roles of professional groups where gaps have already been identified, and where opportunities exist to divest roles in order to take on new responsibilities.

Any decision to reconfigure the health workforce by implementing enhanced clinical roles will need to demonstrate to the Queensland community that changes to traditional health care roles will not compromise safety and quality of health services. Current and new roles will need to be transparently monitored and demonstrate safe and quality outcomes.

The most significant barriers to effecting successful and sustainable change in utilising extended practice roles include overcoming professional boundaries and inflexible regulatory requirements, ensuring the community is well informed and has confidence with the new roles, that appropriate training is provided and changes are made within a background of clearly defined need and appropriate models of care.

2. INTRODUCTION

The challenges for the future health and healthcare of Queenslanders have been well documented in Smart State: Health 2020 and recent reports from the Australian Health Workforce Officials Committee (AHWOC). One of the major issues for Queensland in the future will be providing and maintaining a flexible, responsive, skilled workforce in the environment of less people entering the workforce, new advances in technology and growing expectations of health consumers.

Workforce planning is a key component in planning future health services. Workforce planning is the process of estimating the required health workforce to meet future health service requirements and the development of strategies to meet these requirements. Components of workforce planning include:

- identifying shortages and surpluses
- defining (or re-defining) workplace organisation, tasks and roles
- identifying drivers of both demand and supply
- establishing workforce education and training needs
- providing knowledge and understanding of the workforce and its activities
- ensuring there is a process for systematically addressing the factors influencing workforce and workplace change. (AHWOC 2004)

It should be noted that no future workforce planning can be undertaken in isolation. In working towards a quality-based healthcare system that is responsive to the changing environment there needs to be consideration of the full impact of change on the broader workforce continuum. Any change in roles within any part of the workforce will impact on the expectation and capacity of the rest of the workforce.

Queensland Health strongly endorses workforce planning being undertaken with consideration to all health professions. In the past there has been a tendency for workforce planning to address health professions in isolation with limited recognition being paid to the interdependencies and pressures on professional boundaries with organisational change.

The challenges of professional demarcation will need to be addressed in the context of opportunities to utilise the skills and experience of all health professionals across healthcare, making sure they are being used to full advantage in the areas of greatest need. Health consumers have complex needs with input required from cross disciplines and extending from hospitals. Patient care depends on a team working collaboratively to meet the patient's needs. The Queensland community has an expectation for a seamless service and a systematic approach that goes beyond structure and professional silos.

3. SCOPE OF PAPER

This paper will consider new and advanced roles for health professionals as well as the roles of support staff to enable this change to take place. It will outline the potential for change within the organisation and work that is currently being undertaken.

The initial rationale for Queensland Health investigating alternate roles for nurses and possible substitution roles was a strategy to improve healthcare in under serviced communities such as rural and geographically isolated communities. Parallel to this was research that indicated nurses were leaving the profession due to a lack of opportunities to fully utilise skills, experience and knowledge gained through their university training. It was further identified that there were other health professionals other than nurses with the necessary skills, knowledge and experiences to fill these gaps.

In the same way that the concept of nurses and other health professionals taking on tasks previously performed by medical officers is being explored, similar shortages in the other professional groups has led to the consideration of upskilling the support workforce to fill these gaps.

Information regarding advanced roles of health professionals has been gained through consultation with key stakeholders and a literature search of other jurisdictional initiatives nationally and internationally.

4. ISSUES

Current and predicted health workforce shortages have been identified in numerous studies, reports and discussion papers. The Productivity Commission Issues Paper (May 2005) outlines the multi-faceted problems and ensuing tensions facing the health sector nationally.

Health professionals account for 43% of employment in the health industry; nurses comprising just over 25% (Duckett, 2005). There are current recorded shortages in most health professions however it is unlikely that future workforce planning based on providing more of the same will be enough to meet future needs. Increasing the numbers trained and entering the professions alone will not be enough. The roles performed by each professional group will need to change with realignment of some responsibilities and redesign of some roles. As part of workforce planning initiatives, health authorities in Australia and overseas are reviewing traditional professional boundaries and are developing new and redesigned roles in order to provide quality health services for their communities.

The educational preparation and clinical experiences of nurses provide a sound foundation for nurses to undertake more complex tasks and expanded roles. Advanced nursing roles, including the Nurse Practitioner role, have been trialled and implemented to varying degrees both in Australia and overseas. Additionally the roles of Allied Health Professionals have not been fully utilised. Optimising the full potential of a broader scope of practice will maximise the specialist skills of Allied Health Professionals and may enhance retention through improved career paths.

Within the support workforce there is also the potential to develop and upskill the unregulated workforce to take on roles of professional groups where gaps have already been identified, and where opportunities exist to divest roles in order to take on new responsibilities. Again the resistance of professional bodies to let go of traditional roles is an impediment to change. In rural and regional communities, by investing in developing

the roles and skills of support personnel there is evidence to suggest that the skills will remain within the local community and not leave with the health professional.

The roles of Indigenous health workers are varied and provide an opportunity to explore diverse and articulated pathways to support and deliver health care. Poor outcomes for the Aboriginal and Torres Strait communities are well documented. There needs to be processes in place to clearly support self determination through improving access to mainstream health professional training and fully utilising the skills and abilities of the current and future Indigenous health workers.

The most significant barriers that challenge the introduction and sustainability of clinicians and support workers working in advanced roles are complex and numerous but not insurmountable, and have been successfully addressed in other jurisdictions. These include:

- The rhetoric of articulation between vocational education training and higher education and the reality are quite different. The process of articulation is both cumbersome and difficult to navigate. The opportunities for articulation can also be exploited to resist change.
- The resistance to change through professional demarcation is a significant issue, as has previously been discussed. This is further exacerbated by training that continues to use traditional educational models with little consideration to the requirement for a changing mix of skills. The scope of practice for individual professions is bound by professional interest and history rather than evidence. Additionally the regulatory bodies are unduly rigid in allowing for flexibility and responsiveness of the workforce to the needs of the community.
- Other regulatory arrangements such as the Poisons Act and the Radiation Safety Act, whilst developed to serve the public interest, can become inflexible legislative requirements in the face of changing roles and responsibilities.
- Given the current situation in Queensland the public will need to be assured that any changes to traditional health care roles will not compromise safety and quality of health services. This is particularly so with respect to the medical profession's opposition to emerging roles of nurses and the nursing profession's concerns regarding the expansion of support personnel roles. Current and new roles will need to be transparently monitored and demonstrate safe and quality outcomes.
- Taking on new roles will require a fundamental review of existing roles of all health professionals to ensure there is no unnecessary duplication and an appropriate shift in some tasks as new roles are added. There will also need to be a significant investment in the training component of developing skills and remuneration commensurate with the expanded roles.
- Long term and comprehensive workforce planning needs to be undertaken to ensure that the advanced roles are both relevant and sustainable. Any changes need

to consider risks to demand and supply that inevitably may not address the issues around health service delivery.

- Current funding arrangements are a perverse incentive to changes of the roles currently undertaken by medical practitioners.
- Advanced roles of practitioners assume a critical workforce pool. Whilst utilising health practitioners to their full potential may support improved retention of staff there may be an inherent risk that there is not sufficient workforce to take up new roles.
- Adequate training is required to affect safe and effective utilisation of clinicians in advanced roles. The lead time for this training may extend the time from graduation to work readiness.

5. OUTCOMES REQUIRED

In pursuing options and opportunities for advanced roles of health professionals and support staff the expectations are that the:

- skills of the current workforce are fully utilised
- workforce reflects the diversity within the broader community and across the State
- workforce is responsive to the needs of a changing healthcare across the full continuum
- workforce delivers quality clinical patient outcomes
- changes need to acknowledge the changing social and generational expectations of both the community and workforce

6. CURRENT REFORMS BEING UNDERTAKEN

1. Advanced Practice Nursing Roles

Expanded nursing roles have been evolving for a number of years both nationally and internationally. In Queensland expanded nursing roles implemented to date include:

- Rural and Isolated Practice Endorsed Nurse
- Sexual and Reproductive Health Endorsed Nurse.

Nurses endorsed to undertake the above roles complete specified educational requirements related to the expanded role and are granted endorsement (for the specified role) with the Queensland Nursing Council (QNC).

2. The Nurse Practitioner Role

The Nurse Practitioner role is a specific advanced nursing role that requires legislative changes as some of the tasks performed by nurse practitioners are beyond the current scope of nursing practice. An example of one of these tasks is prescribing medications.

A Nurse Practitioner (NP) is an experienced registered nurse educated to function autonomously and collaboratively in an expanded clinical role. Educational requirement is Masters-level degree.

The nurse practitioner role is at the apex of clinical nursing practice. The role extends and advances current nursing practice, with a strong foundation in knowledge, skills and competencies, for both population and individual health (Victorian Nurse Practitioner Project, 2001).

In Australia to date, the Nurse Practitioner role has been implemented in New South Wales, Victoria, South Australia, Western Australia, and the Australian Capital Territory.

In July 2002, Queensland Health formed a Nurse Practitioner Steering Committee to guide the development of appropriate models for Nurse Practitioner services in Queensland. Membership of the steering committee includes representation from: Queensland Nursing Council, Queensland Nurses Union, Australian Medical Association (Qld Branch), and Qld Divisions of General Practitioners.

In 2002 Queensland Health trialled the nurse practitioner role in four sites:

- Rural Health, Primary Health Care – Morven
- Rural Health, Primary Health care – Laura
- Rural Health – Nanango Hospital
- Oncology/Haematology – Princess Alexandra Hospital

The findings from these trials supported findings from interstate and overseas: that the care provided by nurse practitioners was safe and clinically effective, with the potential to significantly improve access to healthcare services, in terms of “geographical access” and “time waiting to access services”. The trials indicated a high level of satisfaction with the role from patients and fellow health care practitioners. The trial also provided information on what legislative and policy changes would be required to fully implement the role in Queensland. Members of the Nurse Practitioner Steering Committee were extensively involved in writing the report from this trial and this report was published in December 2003.

Following release of the report, the Government made an election commitment to change relevant legislation to allow for full implementation of the role and to implement additional demonstration sites.

In early 2005 Queensland Health selected seven additional nurse practitioner demonstration sites. These sites have developed policies and clinical protocols prior to implementing the roles. Start times for each site varied depending on the number of clinical protocols required to cover the nurse practitioner’s area of practice. All sites had commenced by May 2005. The demonstration sites are:

- Aged Care - Quilpie
- Emergency Department – Redcliffe-Caboolture District

- Heart Failure – The Prince Charles Hospital
- Mental Health – Goondiwindi
- Neonatal ICU – Townsville Hospital
- Palliative Care – QEII District
- Women’s and Child Health – Ross River & Northern Beaches, Townsville
- Two of the sites from the original 2003 trial have continued as demonstration sites:
- Rural Primary Health care – Morven, Charleville HSD
- Haematology/Oncology – Princess Alexandra Hospital

Work to change relevant legislation continues:

- a) Changes to the Health (Drugs and Poisons) Regulation 1996 were signed by the Governor in Council in December 2004. These changes allow nurse practitioners to prescribe and to provide written or oral instructions for the administration of medications according to a drug therapy protocol. The drug therapy protocol is currently being developed through consultation with key stakeholders.
- b) A discussion paper is being drafted regarding changes to the radiation Safety regulation 1999 to allow nurse practitioners to request plain film x-rays.

The Queensland Nurse Practitioner Steering Committee is currently developing a framework document that health services may use once legislation and regulatory processes are in place. These guidelines will assist health services in deciding if the nurse practitioner role is appropriate. Implementation of the role will be based on collaborative workforce planning principles and will require health service districts / healthcare employers to consider the following:

- What is the specific health service to be provided?
- Do workforce skill mix evaluations indicate a nurse practitioner position will address the identified consumer health service needs?
- Do adequate resources exist for the establishment and maintenance of the service? As the Queensland nurse practitioner model is a collaborative practice model, these resources must include access to relevant multidisciplinary team professionals.
- How will evaluation of the service provided by the nurse practitioner be incorporated into the organisation’s safety and quality improvement plan?

Key Points – Nurse Practitioner Role

- The Nurse Practitioner is an experienced nurse with a Master’s degree and has been assessed by the QNC has meeting national competency standards for nurse practitioners.
- The nurse practitioner role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to:
- detailed health assessment & diagnosis
- ordering diagnostic investigations
- the direct referral of patients to other health care professionals,

- prescribing medications and other treatments/therapies
- The nurse practitioner will consult and collaborate with other members of the health care team but may frequently work in the absence of other team members.
- Whilst the nurse practitioner will have a high level of autonomy, clinical decision making will be based on Health Management Protocols (HMPs) that have been developed by the multidisciplinary team which includes doctors, pharmacists, and allied health professionals.
- The HMPs will draw extensively on national clinical guidelines and research evidence to ensure best practice. The prescribing of medication, ordering of pathology and requesting of x-rays, patient referrals and admission and discharge of patients by nurse practitioners will be in accordance with the HMP relevant to the specific area of clinical practice for a given Nurse Practitioner.
- Nurses wishing to practice as nurse practitioners will need to seek endorsement by the Queensland Nursing Council (QNC). To be eligible for nurse practitioner endorsement of their annual licence certificate, registered nurses must meet minimum professional and competency standards as outlined in the QNC Policy on the Regulation of Nurse Practitioners in Queensland.
- The National Review of Nursing Education noted the importance of developing the nurse practitioner role as part of planning for a workforce that meets the needs of the health, aged and community care sectors. Recommendation 5 from this report was that national standards for nurse practitioners be developed, to ensure national consistency in the implementation of the role.

EVIDENCE / COMPARATIVE ANALYSIS

Nurse practitioners have had a presence in other countries since the 1960s. In Australia, the role has been a focus of interest for State health departments since 1990. Over the past decade nurse practitioner trials have been conducted in Queensland, New South Wales, Victoria, South Australia, Western Australia and the Australian Capital Territory. A significant amount of data and information relating to the efficacy of this role has accumulated from these trials and overseas studies.

Nurse practitioners have been shown to offer beneficial service and fill a gap in health care provision, both in primary health care and acute care sectors. National and international studies have demonstrated they provide a service that is highly regarded (Brown & Grimes 1995, Horrocks et al 2002, Kinnersley et al 2000, Sherwood et al 1997, Venning et al 2000) and in demand (de Leon-Demare et al 1999, hand 2001). Nurse Practitioners have been demonstrated to be effective in managing common acute illnesses and injuries and stable chronic conditions (Sherwood et al 1997).

OVERSEAS

- a) United States: The nurse practitioner role originated in the United States during the 1960s as a strategy to help improve health care in under-serviced communities. The role was quickly adopted throughout the United States expanding to include the vast majority of acute care settings such as inpatient speciality areas and emergency departments. Nurse Practitioners have become widely accepted as a valued and essential adjunct in the American health care system.

- b) Canada: Originally implemented in the 1960s as a viable solution to a predicted physician shortage. Nursing and medical organisations were supportive of the role however the existence of a physician surplus (contrary to predictions) resulted in a failure to continue with proposed legislative and policy changes required for the role. The role has re-emerged since the late eighties as a result of physician shortages in rural and remote areas and healthcare reforms in metropolitan areas. However factors such as the provincial nature of the Canadian health care system has resulted in significant regional differences in policy, funding and legislation related to the role.
- c) United Kingdom: Within the National Health Service (NHS) Modernisation the implementation of the “Working Time Directive provision” has been one catalyst for re-design of the health workforce and rethinking the way that NHS currently delivers healthcare. The working time directive provision limits the working week for junior doctors to 58 hours falling to 48 hours in August 2009.
- d) The NHS Modernisation Agency has coordinated the development of a number of new roles including: non-medical anaesthetic practitioners, cardiac intensive care practitioners, orthopaedic nurse practitioners, neonatal/paediatric nurse practitioners,
- e) New Zealand: In 2001 New Zealand formally implemented the Nurse Practitioner role. Nurse practitioners are regulated through the Nursing Council of New Zealand, requiring nurses seeking endorsement to meet minimum standards, competencies and educational requirements (Masters level degree).

AUSTRALIA

New South Wales, Victoria, South Australia, Australian Capitol Territory and Western Australia have all amended relevant State legislation to protect the title of Nurse Practitioner, and to allow for Nurse Practitioners to prescribe medications according to approved clinical practice guidelines. Changes to policy and/or legislation have also occurred to provide for Nurse Practitioners to request diagnostic investigations including x-rays and pathology tests.

- a) In NSW, the first Nurse Practitioner positions were approved in 2000. There are currently 54 authorised NPs in NSW and an additional 26 nurses in transitional positions working towards their authorisation. The role of the NSW Nurse Practitioner includes ordering medications from an approved formulary, initiating diagnostic investigations according to approved clinical guidelines, and some limited referral rights.
- b) Victoria is currently implementing the role. The first four Victorian nurse practitioners were endorsed in November 2004, following amendment of the regulations of the Drugs Poisons and Controlled Substances Act to include the drug formulary for each category of nurse practitioner. The endorsed NPs are now working in the areas of Wound Management, ICU Liaison and two in Youth Health. The Nurse Board of Victoria has three approved providers for Masters in Nurse Practitioner education: La Trobe University, Flinders University and University of South Australia. In addition the NBV has approved University of Melbourne and University of South Australia as providers for the Therapeutic Medication Management Module. The role of the Victorian Nurse Practitioner will also include ordering medications from an approved formulary, initiating

investigations according to approved clinical guidelines, and some limited referral and admitting rights.

- c) South Australia is implementing the Nurse Practitioner role across the whole health care sector – in public, private, rural and urban settings. The South Australian Nurse Practitioner will be endorsed to order routine diagnostic tests, routine pathology investigations and to prescribe certain medications as specified in approved guidelines. To date South Australia has seven (7) nurses authorised to practice as nurse practitioners and several more nurses have submitted their application for endorsement to the Nurses Board of South Australia.
- d) Western Australia has implemented the role with twenty-one (21) nurse practitioners currently authorised. Three courses have been approved for NP education in the state.
- e) The Australian Capital Territory is currently implementing the role. To date 2 nurses have received nurse practitioner authorisation from the nurse's board. The ACT is also undertaking 'The Aged Care Nurse Practitioner Pilot Project (ACNPPP)' - a twelve-month, jointly funded initiative by the Australian Government and ACT Health. The project commenced in August 2004 and is due for completion in June 2005.

3. Extended scope of Allied health Practitioners

A number of examples already exist within our current workforce of allied health professionals working in advanced or extended roles:

- There are already successful examples of physiotherapists, occupational therapists, social workers and pharmacists working in emergency departments to reduce waiting time and minimise available admissions. If the roles of these professions were extended further to mirror emerging roles in the NHS then it would be anticipated that further gains could be made in service efficiencies and patient outcomes.
- Currently our mental health services already undertake shared and extended roles across the disciplines of nursing, social work, occupation therapy and psychology in order to provide better patient outcomes, organisational efficiencies and recruitment flexibility. This model also reflects strong multi-disciplinary and a client focussed services. When initially introduced this team-based model of service delivery was strongly opposed by the different professional groups, however is now accepted practice.

4. Extended scope of practice of support workforce

A number of initiatives have already been undertaken.

- In response to shortages of pharmacists in Queensland Health new roles for pharmacy assistants and technicians have been established and associated VET sector training developed. These new roles have freed pharmacists to undertake clinical pharmacy roles including safe medication management, patient education and advice to prescribers.

- Queensland Health employs anaesthetic technicians at a number of public hospital facilities. Anecdotally anaesthetists prefer anaesthetic technicians because they are trained to meet the College of Anaesthetist guidelines. Anaesthetic technicians work in a number of areas besides operating theatres, e.g. emergency departments, MRI and CT units, radiation therapy departments, x-ray departments and ICUs. They are part of resuscitation teams and maintain the trolleys. Training is offered through the TAFE system in Queensland and also through facility-based and Queensland Nursing Council endorsed courses. This role provides a career pathway for theatre orderlies, and enrolled nurses. There is growing support of this role within the private sector as shortages in theatre nurses become more problematic.
- In Australia the role of Allied Health assistants is well established historically. These roles have been supported by on-the-job training. Since the introduction of the health training package a formal VET qualification at Cert 3 level has been developed. The extended or advanced role Allied Health/rehabilitation/primary health care support staff will require more advanced training so that the support staff can perform a broad range of basic treatment tasks, monitor and record client progress and work with limited supervision. Such a model has been working in the USA for many years and is being developed in the United Kingdom. Currently Queensland Health is finalising a scope of practice document for Integrated Allied Health assistants to inform appropriate skill mix, training and supervision for this workforce.

7. FUTURE OPTIONS

1. *Additional Advanced Nursing Roles*

Many other advanced practice nursing roles do not require legislative change to enable implementation, as these roles fall within the current scope of nursing practice. Nurses undertaking these roles would require specific education/training in relation to the role, for example bowel screening nurses who need to undertake colonoscopy will need training on how to perform this procedure. Examples of proposed advanced practice nursing roles that do not require legislative change are: the forensic nurse examiner and bowel screening specialist nurse.

2. *Extended scope of practice of Allied Health Professionals*

Within the allied health professions there are many opportunities to maximise specialist skills, enhance health services and decrease medical profession workload. For example:

- advanced practice roles for physiotherapists, pharmacists, occupational therapists and social workers (triage and management of specific conditions), radiographers (initial x-ray reporting) in Emergency Departments
- advanced practice roles in the management of outpatient and intermediate care services, e.g. physiotherapy, occupational therapy and podiatry in orthopaedics orthoptists and optometrists in eye clinics, pharmacists in specific disease management clinics, in prescribing and immunisation
- advanced practice radiography, sonography and radiation therapy, e.g. mammography reporting, plain film reporting, ultrasound reporting, diagnostic

procedures (cannulation for contrast injection), radiotherapy treatment planning and monitoring.

Examples of potential Allied Health Advanced Practice Roles

Podiatry

Podiatrists with appropriate education and certification perform below knee surgery in both the USA and UK. In Australia suitably educated and certified podiatrists can also perform ankle and foot surgery, however there are few practising in Queensland (< 5) and none in Queensland Health. Barriers are the cost of training which is self funded and the relatively few orthopaedic surgeons and anaesthetists willing to work with podiatric surgeons.

Pharmacy

The Pharmacist role has evolved from dispensing medication to:

- engaging with patients to provide education and advice on a broad range of health issues,
- help with management of medical conditions and medication management as part of community pharmacy practice;
- a clinical pharmacy role in health care facilities, providing expert advice to patients and staff regarding medication management, quality use of medicines and medication safety and coordination of clinical research and trials involving drug therapies.

At a time of a chronic, international shortage of pharmacists, these extended roles are important in attracting new entrants to pharmacy careers and in retaining existing pharmacy staff.

The breadth and depth of pharmacist training means pharmacists are well placed to take on advanced practice roles including limited prescribing, management of specific medical conditions, particularly chronic disease management, immunisation and patient education.

Pharmacists also represent the most accessible professional in the health care system. Customers have always sought the advice of community pharmacists on a broad range of health care issues. In the USA for example 250 million people walk into a pharmacy every week. In the USA and the UK in recognition of this both the role of community and hospital pharmacists has been extended.

In the USA expanded roles in immunisation, specialised functions such as management of drug therapy and/or clinics (anticoagulation, cardiac risk, high risk pregnancy, diabetes, cardiac failure, nephrology and mental health) have legislative and regulatory support. Patients treated in pharmacist managed clinics had better anticoagulation control, fewer bleeding and thrombotic complications, fewer hospitalisations and emergency department visits and lower care costs than patients treated in the standard manner (i.e. in medical outpatient clinics) (ref: Pharmacist Position Paper – American Academy of Family Physicians, 2005 www.aafp.org/x16625.xml).

In the UK the NHS is contracting with community pharmacists to take on work previously done by GPs including public health work, chronic disease management clinics for diabetes, cardiac failure, sexual health and smoking cessation and in home management of

older people. Pharmacists working in hospitals run specialist clinics for long term conditions and as part of medical assessment multidisciplinary care teams take medical histories and advise regarding medication.

Medical Imaging (Radiography, Mammography, Radiation Therapy)

Radiographers are ideally positioned through their existing knowledge and skills base to perform extended roles in x-ray reporting.

The NHS in the UK has developed a four tier model of skill mix to address critical radiography workforce shortages driven by a worldwide shortage of practitioners (in both the medical imaging and medical workforce), continuing demand for and expansion of cancer services and the need to remove blockages occurring within general diagnostic processes. The multidisciplinary model developed is designed to shape the clinical team around patient and care requirements and as such describes new roles for both support staff (assistant practitioners) and medical imaging professionals (advanced practitioner and consultant practitioners). Examples of advanced practice roles include plain film reporting (skeleton and chest) for Accident and Emergency Departments and General Practitioners, cannulation and administration of contrast medium and other substances, mammography reporting as second readers and CT head reporting.

Physiotherapy

Extended and advanced roles are emerging in the NHS, UK for physiotherapists in the areas of Accident and Emergency and Orthopaedic Outpatient Clinics where they manage patients with musculoskeletal traumatic injuries including examination, requesting x-rays, referring on to the appropriate specialty, administer immediate treatment (eg arthroscopies) and discharge home with advice. The advanced practice role utilises musculoskeletal expertise to augment the medical service in order to provide a more comprehensive service. Studies have demonstrated cost effectiveness as well as maintaining quality of service. Physiotherapists have the capacity to function as first contact practitioners in both settings, avoiding the need for medical intervention in many instances.

Advanced roles for physiotherapists have also been identified in general practice, rheumatology and respiratory clinics.

Occupational therapy

Advanced practice roles for occupational therapists and physiotherapists (as part of a multidisciplinary team in medical assessment units collocated with A & E departments) have been developed in the NHS (Scotland – Lothian, East Kent and Chester Trusts) to provide services to the frail elderly including rapid assessment and referral for urgent medical outpatient treatment and intermediate care, referral to falls programs and pulmonary rehabilitation services, appropriate bed management and placement. It has been estimated that up to 40% of admissions are adequately or better managed through this process than through admission or readmission to hospital.

Orthoptics and Optometry

Current training for optometrists already includes issuing prescriptions to patients, diagnosing and treating complex eye diseases. In addition optometrists are able to triage patients on hospital waiting lists for glaucoma and cataract assessments.

In the UK orthoptists and optometrists triage patients presenting to eye clinics to fast track urgent cases to consultant medical specialists and perform routine follow up work from the consultants' clinics. These extended roles have resulted in reduction in waiting times for patients and better management of urgent cases.

3. *Role of support staff*

There is scope to expand the roles of technical and assistant staff to perform aspects of health professionals' roles, eg in nursing, Allied Health, rehabilitation, aged care, pharmacy and medical imaging.

In UK the new role of an assistant practitioner (radiographer) has been developed. Support staff were already employed in many departments as radiographers helpers. They now undertake formal training to directly contribute to patient care by undertaking less complicated examinations or treatments within the imaging and radiation therapy departments under the supervision of radiographers. They also work in breast screening and undertake basic mammography.

Queensland Health is currently investigating options for support staff to take on extended roles within the rehabilitation service.

4. *New and emerging roles for Aboriginal and Torres Strait Islander health workers*

There is scope for and a need for advanced roles and career paths that provide a link into the mainstream health profession for Aboriginal and Torres Strait Islander workers. Aboriginal and Torres Strait Islander workers who can perform extended and advanced roles will provide improved access to cultural safe and appropriate health services.

Currently the Aboriginal and Torres Strait Islander training package is under review and the new package will ensure appropriate competency-based training is available to advanced roles consistent with the national Aboriginal and Torres Strait Islander Workforce Strategy and an implementation plan in Queensland. The current competency audit project for Aboriginal and Torres Strait Islander provides a platform for identifying individuals who have the potential to perform advanced roles with appropriate training.

Within Queensland Health there is already training and RIPEN endorsement for indigenous health workers to work in clinical roles that includes supply and medication according to Queensland Health primary care protocols

8. CRITICAL SUCCESSFUL FACTORS FOR ADVANCED ROLES

Lessons learnt and experiences from advanced roles initiatives undertaken within Queensland as well as from other jurisdictions offer very clear direction for affecting successful and sustainable change. The most important considerations include:

- Engaging appropriate stakeholders and the community

- Ensuring that any changing roles within a background of defined need and appropriate models of care
- Methodology needs to involve comprehensive formative and summative planning utilising demonstration sites and well constructed evaluation
- Addressing legislation and regulation
- Clearly define the role and underpinning knowledge and competence and match with appropriate education
- Needs to be comprehensively marketed to the community
- Developing advanced roles in concert with substitution roles is a successful strategy in order to gain cooperation from the professional groups in role redesign

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APPENDIX 1 – New Roles in the United Kingdom NHS

Anaesthesia Practitioner	<ul style="list-style-type: none"> ▪ New ways of working in Anaesthesia which will focus on the development of non medical roles in the provision of anaesthetic services. This model involves a medically qualified anaesthetist supervising a number of anaesthesia practitioners in more than one theatre. ▪ It is expected that these practitioners will play a significant role not only in preparing the patients for theatre but also in monitoring their physical and psychological condition during the operation, thereby enabling anaesthetists the flexibility to cover more than one theatre. ▪ The role has the potential to release medical time enabling doctors to focus on the skills only they can provide. ▪ This role has been implemented in a number of European countries and the US.
Cardiac Intensive Care practitioners	<ul style="list-style-type: none"> ▪ Undertake a host of tasks such as diagnosis, x-ray requests, prescribing and general problem-solving ▪ Undertake a six month competency-based training program ▪ Although current cardiac intensive care practitioners happen to be trained nurses, it is thought in the future such roles may also open to other health care disciplines. ▪
Trauma & Orthopaedic Nurse Practitioners	<ul style="list-style-type: none"> ▪ Primary aim of introducing this role was to reduce the work intensity of junior doctors and improve the quality of front-line care to trauma patients ▪ Provide round-the-clock trauma service in close liaison with the emergency department ▪ Request x-rays, initiate & administer pain relief and fluid replacement and arrange further testing ▪ Once patient stabilised, the practitioner facilitates transfer to relevant area, liaises with fracture clinic, organises admission and if necessary applies plaster cast ▪ Benefits identified to date include: fast tracking of patients to the specialised trauma unit, patient spends less time in emergency department, and improved communication with regard to planned care.
Neonatal and Paediatric Nurse Practitioner	