Monash University

Faculty of Medicine, Nursing and Health Sciences

Submission to the Productivity Commission
on the Health Workforce

July 2005

1. Background

The Productivity Commission was asked by the Federal Treasurer, The Rt. Honourable Mr Peter Costello, to undertake a review of workforce issues in the health sector to encompass planning, undergraduate, postgraduate, and continuing education for workforce exigencies, and other general issues such as regulation of the sector. All interested parties were asked to contribute.

The Faculty of Medicine, Nursing and Health Sciences (the Faculty) at Monash University is one of the largest and foremost providers of healthcare education in Australia. It has an annual budget in excess of AUD 230 million. It provides a significant proportion of the newly qualified health workforce in Victoria. If it were itself a university it would be approximately the 9th largest in Australia. Staff in the Faculty is recruited from almost all healthcare disciplines currently employed in Australia. The Dean of the Faculty is Professor Edward Byrne.

This submission constitutes the collective responses from Schools, Disciplines, Centres and individuals within the Faculty. Through the Faculty executive, all Heads of Schools, Departments and Disciplines providing registrable health care qualifications were asked to make their views known by 5pm on Thursday 14th July. A preliminary summary was circulated to Faculty Executive on Monday 18th July and further representations incorporated into this submission during the period 19th-27th July 2005.

Depositions were received from Medicine, Nursing, Physiotherapy, Radiography and Imaging Sciences, Psychology, Psychiatry and Psychological Medicine, the School of Primary Health Care and the Centre for Medical and Health Sciences Education. Within those contributing were a number of staff who have worked for considerable periods of time in both the education and health sectors of a variety of countries including Australia, the USA, Canada, and the UK, and one honorary member of staff who has just undertaken a Churchill Fellowship of 10 weeks duration to study postgraduate training in Europe and Canada.

2. Context of this Submission

Our submission reiterates and extends the major issues identified by the Productivity Commission Issues Paper. We also noted the tendency of existing submissions posted on the web site to confirm those features identified as problematic within the system. Although this submission will echo many of these sentiments, we also wish to try to be positive and to indicate avenues for further exploration as a basis for enhancing and strengthening the health workforce system and its educational underpinnings.

3. Executive Summary

3.1 Systemic Issues

The Faculty broadly and wholeheartedly supports the major systemic issues identified at the recent Committee of Deans of Australian Medical Schools and Australian Medical Council conference held in Canberra from 7–9 March 2005 ('Medical Education Towards 2010: Shared Visions and Common Goals'). This Conference was attended by a number of members of the Faculty, including the Dean.

Our current health delivery system, and especially its funding arrangements through Medicare, the State-Federal divide and the fee for service system, is outdated even though it may have served us well for several decades.

Currently 2 Federal Departments, DOHA and DEST, State Health Departments and a number of national organisations (e.g. GPET), are all involved in the education, training, certification, and accreditation of health professionals. The complexity of the situation, particularly in relation to the continuity of education, causes major difficulties. There needs to be a radical review of the system.

At the very least, a national super-ordinate healthcare education framework is needed to drive and coordinate change.

3.2 Recruitment and Retention

There is a critical shortage of a number of healthcare professionals. Recruitment is poor for specialist psychiatrists and also for clinical psychologists with experience in mental health particularly in the public, but also in the private sector. Retention is poor for nursing and physiotherapy

A critical factor in recruitment is the attitude that students develop towards disciplines. Vigorous efforts must be maintained to reduce the stigma associated with some areas of health care, such as mental illness, in order to improve recruitment.

In all specialties postgraduate training opportunities must be available in Australia to ensure the completion of full specialty training in areas of need. There seems little point in doubling the number of medical graduates unless the number of available training places is also substantially increased.

Australia should meet its workforce requirements in all areas of health care largely with graduates from its own university system. There is a need to increase the number of commencing students in Australian medical and nursing schools. Increasing the capacity in existing institutions must be the most cost effective way of addressing this need.

There are opportunities to better integrate undergraduate and postgraduate training and to plan postgraduate training more effectively to reduce training times for many healthcare specialists.

3.3 Education in Clinical Settings and its Funding

In most healthcare courses finding adequate numbers of clinical placements suitable for supporting learning for students throughout their courses has proved difficult. This has been

exacerbated by the educationally essential requirement to induct students earlier into the clinical milieu. The dearth of funding for clinical placements across all healthcare professions apart from medicine has meant that universities have had to compete with incentives for such positions with dwindling resources.

Health care and tertiary education providers must initiate greater collaboration and shared responsibility for the education of future practitioners rather than this responsibility being held solely by education providers.

Research needs to be commissioned both on how the education of students contributes to, or is burdensome on, the healthcare sector, and to quantify the impact that students make towards patient care.

In Nursing and Physiotherapy, burnout and exit from the workforce seems particularly to affect staff with supervisory responsibilities. Health care providers need to offer greater incentives to staff who have worked in one area for a significant period of time, have developed expertise, and who provide support for students.

Mandatory increases in some areas of content, e.g. indigenous studies, aged care and mental health in nursing, often required by regulatory bodies, have stretched the capacity of some courses, to deliver generic work-ready graduates.

Innovative approaches to evidence-based clinical pharmacology, and other potentially integrating specialties, are of fundamental importance to health professions education.

There are large differences between the levels of funding available to different healthcare professions for education. This is especially so for clinical placements. These differences seem unrelated to tasks and levels of complexity. As all professions become much more dependent on meeting patients' demands and on clinical technology both for education and for practice, this variability will lead to deleterious effects in some professions.

In all health care, attracting working professionals to engage in education is inhibited or prevented, either by the levels of clinical loading available, or by the huge disparity between earning potential within the education and healthcare sectors. Recruitment of senior academics in health from overseas is difficult for the same reasons, but also because of severe international disparity in academic salaries.

Exposure to all environments, for example public, private, metropolitan and rural health care delivery, during undergraduate and specialist training should be available for all healthcare professions.

3.4. The Workplace

A key question for this commission is the extent to which the clinical tasks required of the practitioners in the workplace match the educational level being demanded by the profession. Many would argue that there has been a distinct lack of vision within some healthcare workplace environments/regulatory bodies to capitalise upon the intellectual, professional and procedural skills exhibited by graduates.

3.5 Accreditation

The process of accreditation is unacceptably variable across different professions and in different States. Using hours as a fundamental yardstick, e.g. in Radiography and Physiotherapy, is inappropriate in a work environment where processes and practices have

changed radically in the last 20 years, and which is also fundamentally inhospitable to the trainee.

3.6 Research

There is considerable uncertainty at a number of levels around many issues salient to the workforce problem. This uncertainty arises from a number of factors, not least of which is the difficulty of attracting research funds for basic and applied educational and demographic research in health professions education. The need for such evidence is very well appreciated by other western countries with similar problems.

4. The Health Care and Education Systems in Australia

4.1 Introduction

There are significant and problematic discontinuities across the health system. The most significant of these relate to the interface between health and education. The myriad regulatory arrangements for the health workforce are also the cause of concern and disquiet. The most pressing issues derive from the divided constituencies of, responsibilities for and differing agendas between, levels of government, the health and education and training sectors and other stakeholders. These problems have the potential to stagnate or gridlock any attempts at a State or Federal level to achieve significant progress. They are also the main reason why it is so challenging to plan solutions across all stakeholder groups for the benefit of patients.

The structural arrangements for the education, training and regulation of the health workforce create significant problems in providing flexibility and responsiveness to deliver adequate numbers of health workers with the appropriate skills to meet the changing health care needs of the community.

As an example, our current health delivery system, its funding arrangements through Medicare, through the State-Federal divide and through the fee for service system are probably outdated even though they may have served us well for several decades. Workforce issues, career planning and vocational training all operate within a health system which has inherent difficulties and flaws that influence career choice and training outcomes away from agreed national and international priorities. For example, there is demonstrated national and worldwide acknowledgement of the need for increased numbers of specialists in aged care, psychiatry, and general practice, which prospective interventional specialists might otherwise choose if Medicare did not reward procedures more highly than consultations. Within the primary care sector there are significant difficulties with; deployment of allied staff, skills mix, delivery of some services; and funding of the system. In secondary and tertiary care environments, the pressure on hospitals to deliver service improvements on a continuing basis is eroding the educational opportunities at all levels and in all professions. Both healthcare and education are worse off as a result.

4.2 Systemic Insufficiency - The Degree of Change Required

Currently two Federal Departments, DOHA and DEST, and all State Health Departments are all involved in education, training, certification, accreditation etc. This results in repeated cost shifting and devolution of responsibilities which militates against rational workforce planning and educational delivery. There needs to be a radical review of this complex situation.

A national healthcare education framework is needed to drive and coordinate change. There are many healthcare professionals and academics with the vision and experience to work together to drive this agenda forward. However the current Federal-State and University-Hospital infrastructure would at best impede and at worst completely stall any such initiatives.

A view is prominent that small changes will not keep pace with changing workforce requirements from 2010 to 2020. A more radical approach is needed across almost all fronts.

The Medical Education Towards 2010: Shared Visions and Common Goals conference isolated many strategic visions for how the health and education sectors needed to redefine themselves to move towards a more streamlined and functional system. The Faculty wishes to

endorse the recommendations from that conference and to reiterate and expand some of the more important ones, with reference to other professions.

5. Issues from "Medical Education Towards 2010: Shared Visions and Common Goals"

5.1 Policy

A policy framework is necessary that: is responsive to health workforce needs and health outcomes of the community; places medical education in the context of a continuum of health provider education; and provides vertical and horizontal integration of medical education. This framework could be achieved through a 'health education council': a national body providing advice to AHMC and MCEETYA in setting up a policy framework.

In this context it is significant that the NHMRC has recently taken on a national role in dissemination of and education about certain issues of direct relevance to the health workforce, (for example, communication with patients, and utilisation of evidence in practice). This is a clear indication of the need for a national focus for healthcare education and training.

In addition health professionals could be better prepared for the areas of fitness to practice, safety and quality, and team-based health care. These topics should be integrated throughout health education programs. Rather than taught as discrete subjects; they should be part of a continuum of education from undergraduate to postgraduate study, they should be assessed, and they should be actively interprofessional in both focus and delivery.

5.2 Progress on Issues

There are significant steps needed to achieve progress in the following areas: clinical roles, educational roles, recruitment and retention, in education in the clinical setting, and in the regulatory framework.

5.2.1 Clinical Roles

There needs to be national coordination on core competencies, between and across all levels (undergraduate/postgraduate, university/healthcare) and across different healthcare professions.

There need to be better, but realistic, statements encapsulating what constitutes good professional practice. This is particularly indispensable in medicine, but also within other health professions. Definitions should extend and clarify the attributes and current roles of competent practitioners, in order to meet the requirements of modern systems and the flexible delivery of health care. Specifically effort should be expended on how each profession relates to the others, so that broad frameworks of effective working and delivery of care can be planned rather than relying on serendipitous factors. Exemplars of how such definitions can be developed, in wide consultation with stakeholders, including patients, have been undertaken by the General Medical Council in the UK and the Royal College of Physicians and Surgeons of Canada. These are nationally valid definitions, widely accepted by both medical and allied professions.

The nurse–doctor paradigm is but one example of a relationship that needs to change. For example, some elements of time-based training could be replaced by competency-based training.

Competence based, as opposed to time limited, assessment and training is one means to these ends. This applies across all professions. Moreover notions about safety and appropriate levels of responsibility for those competencies seem anchored in an era in which technology was rudimentary. For example, in Australia, the radiography profession (amongst others) is wedded to a time based training model, (see more detailed discussion on pp 14-15). Well educated and trained graduates from 3-year undergraduate courses in radiography must also complete an additional supervised 48 week period of training before being eligible for accreditation with the profession. More pertinently, they are unable during this period to undertake some relatively simple radiographic tasks. There has also been a distinct lack of vision within some healthcare workplace environments / regulatory bodies to capitalise upon the intellectual, professional and procedural skills exhibited by graduates. For example radiography students entering the Monash course have ENTER scores above 94.85. Many educators ask why an honours graduate with this background would stay in a work place that demands they simply take plain radiographic images for interpretation by another health care worker.

There are opportunities to better integrate undergraduate and postgraduate training and to plan postgraduate training more effectively to reduce training times for many healthcare specialists.

In many areas training could be shorter or roles redesigned to make it so, for example:

- some specialists may not need certain procedural skills
- many specialties do not require the current system of more than 10 years training in science-based ‘physicianship’
- some professions, such as radiography, and nursing could take on a wider and more challenging set of responsibilities.
- as generalists in a primary care team, students could develop a minimum set of easily transferable skills.

Changing roles could improve job satisfaction, as basic clinical and procedural roles reduce and managerial, supervisory and complex clinical roles increase.

5.2.2 Educational Roles

As part of this process particular clarification needs to be made in relation to the educational role, in the workplace, of healthcare professionals. Professional organisations claim to address this. However, currently universities and other training bodies have little influence within public workforce consortia and even less in the private sector. They are constrained by lack of funds to purchase adequate training, and have historically brokered with individuals and organisations to provide training free or at less than cost price. Frequently, in this context, time and expertise devoted to training juniors takes far too subordinate a role to patient throughput and continuing care. This situation is having an across-the-board deleterious effect on all levels of training from undergraduate to specialty.

Currently there are shortfalls in clinical placements. Such shortages occur despite using both public and private sector health care agencies. This is compounded by increasing costs to universities for the provision of clinical teaching services.

There are even fewer placements that possess the capacity actually to engage in systematic, energetic training, as an adjunct to having students ‘on-board’. Unless all health professionals see it as their responsibility both to educate their junior colleagues, and to learn to do this in a

professional manner, there will continue to be crises in training. Health care and tertiary education providers must initiate greater collaboration and shared responsibility for the education of future practitioners rather than responsibility being held solely by education providers. If training roles were owned and shared by professionals, their accrediting bodies, and by the universities and industry managers, much of the hiatus around clinical learning would disappear. The health sector needs to be part of a learning organisation.

5.2.3 Recruitment and Retention

The Mental Health workforce faces a number of major challenges, in specific areas which are relevant to the consideration of the productivity commission inquiry.

High prevalence mental illnesses such as depression, account for one of the leading global burden of disease and impacts substantially on the productivity and well being of our society. Low prevalence mental illness, particularly psychosis (schizophrenia and bipolar disorder) and serious developmental disorders of childhood such as Autism and Intellectual Disability account for exponentially accumulating health care costs. For example, more than 20% of acute hospital in-patient beds are occupied by adults with serious mental illness.

There is a critical shortage of specialist psychiatrists and also clinical psychologists with experience in mental health in both public and private sectors, but particularly the public sector in Australia. This shortage is even more marked in disadvantaged metropolitan areas such as the Western suburbs of Melbourne and of Sydney and also in rural Australia. There is also a relatively inequitable distribution of the limited amount of funding provided to public psychiatry services. For example Child & Adolescent Mental Health Services receive only 10% per capita of the funding allocated to funding for patients in spite of the additions and potential economies offered through prevention and early intervention that can be delivered in childhood. There is also a significant shortage of mental health services for clients of forensic services where the rates of mental illness in some prisons exceed 30-40%. Increasing number of hospital registrar and also public psychiatry hospital specialist positions are occupied by overseas trained doctors who are working under special visa arrangements. Their past training experiences and cultural background create professional difficulties for them particularly if they are working in a relatively isolated and unsupervised setting. Within the constraints of State Mental Health Service budgets, there are limitations on the number of training psychiatrist (registrar) positions available. However, there is also some difficulty in filling these available training posts and a recent paper (submitted by invitation to the Journal of International Psychiatry, which is published by the Royal College of Psychiatrists, London) further explains this issue. As a consequence there are not sufficient psychiatrists being trained to begin to address the shortfall of specialists in this field.

Similar problems also exist for clinical psychologists and nurses working in mental health. Some States have introduced nurse practitioner models in which nurses receive extra training and accreditation to undertake some of the roles of psychiatrists such as prescribing and monitoring a specified range of psychotropic medications. As a consequence of the problems of recruitment and retention of psychiatrists and other mental health specialists some public mental health services in Australia for example Mental Health Branch in Victoria, have funded a number of clinical academic positions with the aim of encouraging quality staff to remain in the public sector. These strategies have been relatively successful and have ensured academic and clinical leadership in all branches of Psychiatry (including Forensic, Old Age, Child & Adolescent and Rural). The delivery of the recent National Mental Health Plan can only be achieved if there are improvements in recruitment, retention and training of a more extensive mental health workforce. There are a number of initiatives which aim to improve delivery of mental health care that involves partnership with primary care, including the formation of primary mental health care teams in both rural and metropolitan regions. This initiative has proved effective, but is still dependent on the availability of a general practice

workforce that has received some training and orientation to mental health service delivery. The Royal Australian & New Zealand College of Psychiatrists, the State Mental Health Services, University, the Departments of Psychiatry and Psychology, consumer and carer groups and others are actively involved in a process of consultation with the Commonwealth regarding workforce issues associated with the delivery of the current National Mental Health Plan. The University Departments of Psychiatry, Psychology and Schools of Nursing, play a key role in the education and skills training of the mental health workforce. For example in Victoria the only RANZCP accredited teaching program for psychiatrists in training is the conjoint Monash University-University of Melbourne MPM/M.Med. Degree Course. University academic salaries are considerably below the salaries available to full time psychiatrists employed in the public mental health sector, which are in turn less than that available to psychiatrists and psychologists who have a mix of hospital sessions and private practice. In Victoria the State Mental Health Branch attempts to address this issue by topping up the salary of academics with an extra sessional payment. However, this salary disparity is making it increasingly difficult, if not impossible, to attract recent specialist graduates into a career in mental health which involves research and teaching, as well as clinical practice.

Another critical factor in recruitment is the attitude that students develop towards disciplines. For example, recent studies show Psychiatry to be the least attractive career option in the field of medicine and that students held negative and prejudicial views about the practice of Psychiatry and its patients. Vigorous efforts must be maintained to reduce the stigma associated with mental illness and harnessed to current advances regarding brain function and treatment of psychopathology. This is likely to raise the attitude towards Psychiatry and improve recruitment.

In Nursing, burnout and exit from the workforce seems particularly to affect staff with supervisory responsibilities. There is a need for health care providers to offer greater incentives to staff, who have worked in one area for a significant period of time and have developed expertise there and who provide support for students.

Postgraduate training opportunities must be available in Australia to ensure the completion of full specialty training in areas of need. For example there seems little point in doubling the number of medical graduates unless the number of available training places is also substantially increased if not doubled.|

For a variety of reasons, not least ethical considerations, Australia should meet its workforce requirements in all areas of healthcare primarily with graduates from its own university system. There is a need to increase the number of commencing students in Australian medical and nursing schools. The current interest in establishing new medical schools at a rapid rate may not be the most cost effective way of utilising resources. For example Australia has been at the forefront of educational development (problem-based learning, graduate entry, rural and remote clinical schools, selection processes) for several decades. So the argument, such as used in the UK, that new schools are needed to allow new models to develop does not apply. The cost benefit of building new, as against expanding existing, schools has not been adequately debated in the public domain. The argument for rural schools of health was convincing, but these have all been attached to established schools. Utilising what spare capacity exists, or increasing that capacity in existing institutions, must be the most cost effective way of addressing this need.

Educators can play a role in encouraging interest in areas of workforce shortage. For example, ways to assist universities to encourage physiotherapists and others to work in rural or remote locations include:

1) Make rural employment attractive by facilitating high level specialist or academic appointments that provide incentives (eg postgraduate education, practical skill

acquisition) for staff retention. This subsequently provides opportunities for student attachments

2) Encourage new graduates to seek rural and remote appointments on graduation through facilitating exposure to rural health care delivery during undergraduate training. Opportunities exist to support living costs associated with rural attachments, provide accommodation to students who take rural attachments, provide financial incentives to health care services to take students, partition a proportion of places in university courses for students from rural and remote areas, provide bursaries to encourage students to take health care education and return to work in rural areas, and provide incentives to educational institutions to preferentially seek students from rural and remote and indigenous environments.

5.2.*4 Education in Clinical Settings and its Funding*

Studies from the United Kingdom suggest that nursing students do contribute to the health care setting and to patient care. However, no Australian studies have been carried out to quantify the contribution that students, of any discipline, make towards patient care. Such data may assist with determining how clinical costs should be formulated. Research needs to be commissioned on how the education of students from all healthcare disciplines contributes to or is burdensome on, the healthcare sector, and to quantify the impact that students make towards patient care.

Mandatory increases in some areas of content, e.g. indigenous studies, aged care and mental health in nursing, required by the regulatory body have stretched the capacity of courses to deliver generic work-ready graduates. In addition, a thorough training in evidence-based clinical pharmacology is of fundamental importance to medical education. For example, approximately 60% of General Practitioner consultations involve prescription of drugs, and this needs to be done in the context of the best evidence in relation to patient and societal outcomes. Australian prescribing has not always followed such evidence: for example there has been a marked tendency to over prescribe antibiotics, with resultant problems of drug resistant bacteria and increased cost to the Pharmaceutical Benefits Scheme. Also, there has been a marked tendency for Australian doctors to over prescribe new drugs; e.g. Vioxx, which has now been withdrawn from the market because of deaths from cardiovascular causes. Doctors have over prescribed such new drugs allegedly because of clever marketing strategies by drug companies, despite contemporaneous evidence and expert opinions that such drugs should not be used as widely as they have been. However, at undergraduate level integrated, problem-based courses, that are excellent in reducing content overload, and deliver good graduate skills in many other respects, can overlook these and other issues. Examples exist of high quality State-based multiprofessional ‘medicines-management’ courses or units that are difficult to deliver at undergraduate level because they depend for their success on work-based delivery in a multiprofessional context.

The supervision of junior staff needs to be recognised as crucial to the education system in healthcare. Supervisors need to be supported in terms of time allocated to this role, training for this role and resources eg administration support. At the moment supervision is tacked on as another task asked of busy consultants. As a result often this role falls to registrars. Is this group the appropriate one to engage in supervision? Nationally, we need to decide who should be doing it and then support them. In UK and Canada they have specific time allocated and appropriate training. Workplace learning is crucial in medicine but we need to support this with appropriate structures.

A national curricula, for example for postgraduate years 1-3, needs to be mapped locally and decisions made as to where the most appropriate place is to learn certain things. For example, if it is decided that some areas of the curricula are best taught away from the bedside, in simulation centres for example, then protected time must be mandated to allow this training.

In the UK and Canada trainees get the equivalent of 1/2 day per week of true protected time for specific training programs to be run.

In all healthcare education, funding professionals to engage in education is inhibited or ruled out completely either by the levels of clinical loading available, or by the huge disparity between earning potential within the education and healthcare sectors. While this is most evident in medicine, it is equally true of other disciplines such as radiography, physiotherapy and clinical psychology. For example funding for training of clinical psychologists at the HDR level does not sufficiently take into account the intensive supervision/case work management that this entails.

There are large differences between healthcare professions in funding available for education in general and clinical placements in particular. While many would argue that the level of funding for medical students is inadequate, this is above that provided for allied health personnel with equally demanding circumstances – e.g. nursing and physiotherapy. This disadvantages those health care professions. As all professions become much more dependent on meeting patients' demands and on clinical technology both for education and for practice, this variability will lead to deleterious effects in some professions. The virtually complete privatisation of a number of key health services (e.g. pathology, imaging) has put severe strain on the academic development of these areas. Other areas are following suit. Hence ways must be found of providing exposure to all environments, for example public, private, metropolitan and rural health care delivery, during undergraduate and specialist training for all healthcare professions.

4.4.5 The Regulatory Framework

The regulatory framework for undergraduate and early postgraduate training is hampered by uncertainties of funding. Universities work on a 3 or 5 year cycle and their funding is reasonably secure. However the funding cycles of the postgraduate councils, especially that in Victoria, are unclear, with some being funded on much shorter timescales or with inflexible budgets. This does not make strategic planning, long term collaboration or rapid responses easy. By comparison, both the UK and Canada have joint accrediting functions operated through their AMC equivalent, that forces collaboration between the University sector and the hospital health providers.

Moreover, some regulation is still carried out on a voluntary or quasi-voluntary basis. All health care education should be regulated through nationally monitored and organised, appropriately constituted, bodies.

6. Professional Issues

There are two specific examples of how complex factors affect the development of professional courses. These two examples can also illustrate the problems, and the degree of uncertainty around the issues, in many of the other health care professions outside of medicine. Many of these concerns stem, as illustrated in radiography, from an extended evidence base in health professions education, much of it conducted outside of Australia. The lack of data relating to the Australian situation arises from a number of factors, not least of which is the difficulty of attracting research funds for basic and applied educational research in health professions education. This disadvantage is not experienced by other western countries.

6.1 Particular Issues in Nursing

Nurses and midwives in the workplace often leave due to burnout and feeling unvalued. Many of these people provide ongoing support for students in clinical settings due to a sense of duty to nurture future practitioners. However, such contribution is often unrecognised by peers who are less willing to support students. Recent research and empirical studies have shown that many highly qualified clinicians who frequently support and mentor students burnout within a short span of time, some within a year. These alarming findings clearly suggest the nature of heavy workload associated with clinical supervision. There is a need for health care providers to offer greater incentives to staff, especially those who have worked in one area for a significant period of time and have developed expertise there and/or who have provided support for students. In some current settings this expertise is recognised by enabling staff to apply for the position of clinical nurse specialist.

Tensions can present in developing clinically relevant educational programs. Nursing and midwifery curriculum developers are responsive to contemporary issues in their fields when undertaking course revisions. This includes recognising the increasing role of technology and growing sophistication of health care. However, curriculum developers must also consider key content areas prescribed by registering authorities. The Nurses Board of Victoria has recently revised its curriculum guidelines mandating the inclusion of indigenous studies, increased mental health and aged care content in nursing courses. These must be incorporated in order for the course to be accredited and graduates to be registered with the Board. In order to incorporate these requirements other potentially equally important areas must be sacrificed as it becomes impossible to include everything in a three year degree program.

Increasing average ages of practising nurses and midwives is of great concern if current levels of health care standards are to be maintained in the future. The school recognises a need to continue to market nursing and midwifery as attractive and rewarding careers for school leavers with an emphasis on increasing male applicants. This needs to be reinforced within the health care sector through strategies to retain valued staff.

The Faculty offers a number of postgraduate specialties including emergency, critical care, midwifery and paediatrics. Enrolment numbers for these courses is relatively low each year and hence the numbers of specialist nurses may be insufficient to meet industry demands. The full fee paying nature of these courses is a distinct disincentive to nurses who may have a desire to undertake them. Potential students being unable to gain release from work to undertake postgraduate studies further compound this in some cases.

The shortage of nurses throughout Australia and internationally is well documented. In response to such demand various Schools throughout Australia have programs specifically geared for overseas nurses who may wish to register and practice in Australia. The School of Nursing and Midwifery also offers the Post-Registration Course for Overseas and Australian Nurses who wish to upgrade their knowledge, skills and qualifications to a degree level. All Overseas nurses undertaking this course at the School are required to register with the Nurses Board of Victoria before commencing the course to declare their intention of practicing within Victoria.

The English language requirement for entry into the course for overseas nurses for Monash University is an overall band of 6.5 for the I.E.L.T.S test. However, for the Nurses Board of Victoria the overall band score is 7.0. This difference in score has created many obstacles for overseas nurses wanting to register and practice within Victoria. This difference between the Monash entry and the Nurses Board of Victoria scores needs to be addressed so that there is uniformity and consistency for entry and practice purposes. One way would be to allow overseas nurses with an I.E.L.T.S score of 6.5 to resit the I.E.L.T.S test after graduating and

for the Nurses Board of Victoria to allow them to register having achieved a score of 7 (after graduating).

6.2 Particular Issues in Radiography

Lengthy undergraduate degree programs leading to registration as health professionals can only be justified if there is a direct match between the skill levels attained during the undergraduate program and the reality of the workplace. Ultrasound provides a good case study. The four year Bachelor of Radiography and Medical Imaging introduced by Monash University in 1998 was designed to graduate beginning practitioners to responsibly engage in a range of medical imaging examinations including radiography, ultrasound, computed tomography and magnetic resonance imaging. Our expectation was that accelerated progression into sonography would occur given the learning outcomes of the graduates. This has not occurred partly due to professional demarcations within the workplace which originate with the professional bodies, and to a smaller extent because of a tradition within sonography of linking access to advanced modality training to 'time served' in the workplace.

Prior to 1985, entry into the radiography profession (including diagnostic and therapeutic radiography) in Australia was either at UG 2 or UG 3 level of education (CAE Diploma or Associate Diploma). RMIT introduced the world's first degree in Medical Radiation Science in 1986. The argument around which the debate hinged was related to technological change and the need for an appropriately educated workforce to maximise the use of the new technologies for the benefit of patients. There is little doubt that digitisation has revolutionised diagnostic radiology and radiation oncology. Indeed the revolution continues. A key question however for this commission is, to what extent is the wholesale upgrading in academic qualifications across the health sector related to the phenomenon of professionalisation? In other words do the clinical tasks match the educational level being demanded by the profession?

There are elements in all health professional work that do not require higher levels of education to perform them. For example, within radiography, the creation of a "routine" chest x-ray on a cooperative adult could be performed by someone completing a VET sector diploma. However, unlike in the UK, where appropriately trained radiography assistants perform tasks such as the "routine" chest so as to free up the university educated radiographer to perform tasks requiring higher level clinical decision making capacities, there has been no move in this direction in Australia. In contrast, because the profession is fixated upon a time based training model, well educated and trained graduates from three year undergraduate courses in radiography must also complete an additional supervised 48 week period of training before being eligible for accreditation with the profession.

The situation is further compounded by registration boards such as the Medical Radiation Technologists Registration Board of Queensland maintaining that contrast radiography, paediatric radiography and computed tomography are specialist areas of practice. Advances in technology have been such that there is very little traditional contrast radiography performed in Australia. Computed tomography is now a routine element of daily radiographic practice. The same applies to paediatric imaging.

There is a great potential for reform of the radiography and radiation therapy health workforce that will lead to enhanced and potentially more satisfying work opportunities for medically qualified radiologists and radiation oncologists. Within both diagnostic radiography and radiation therapy in the UK, there has been a revolution concerning role development into areas hitherto the strict domain of either the radiologist or radiation oncologist. For example, following a combination of work based training and post graduate university education, specialist radiographers now provide written opinions on plain images including mammograms and perform and "report" upon barium studies and intravenous

urography examinations (Loughran, 1994; Pauli, et al 1996; Chapman, 1998; Ward, 1998; Robinson, et al, 1999; Keenan et al, 2001). A recent Queensland study reaffirmed the British findings that with appropriate training and radiological support, radiographers could "report" on findings with the same degree of accuracy as expected from radiologists (Cook, et al, 2004).

Over the past 5 years, the role of the radiation therapist in the U.K has evolved into many areas of Advanced Practice. This is as a direct result of staff shortages within the profession itself, the multi-disciplinary team and the increasing complexity of treatment techniques (Abraham, Jackson and Johnson 1999). Roles in Information and Support/Counselling, Pre-treatment 'Mark-Up', Patient Review, Lung and Gynaecological cancer have been identified by the Department of Health (2003) and College of Radiographers (1997) as areas for Advanced Practice. This culminated in the publication "A Strategy for the Education and Professional Development of Radiographers" (COR 2002) which outlined a National framework for career progression, Advanced and Consultant practice in the Medical Radiations field. The Baume Report (2002) has made a clear link between retention and the development of advanced practice roles within radiation therapy in Australia.

However, as the Productivity Commission Issues paper recognises, the main barrier lies with the pressures exerted by "strong interest groups". In the case of radiography, radiation therapy and sonography, these groups are primarily the Royal Australian and New Zealand College of Radiographers, the Australian Institute of Radiography, the Australasian Society for Ultrasound in Medicine and the Australian Sonographers Association.

Another example of how the methods of education and training favoured by the professional bodies affect the efficient access by patients to diagnostic imaging modalities can be found within medical ultrasound. Access to clinical training in medical ultrasound is generally provided only to either radiographers or nuclear medicine technologists following at least 2 years of clinical experience in their professional field. It is also very employer dependent. It can take up to 3 years to complete the requisite post graduate diploma in medical ultrasound due to the requirement that trainees continue to work full time in the workplace and complete the academic component of the training in their own time.

6.2.1 Education and Training

It is wasteful to graduate well educated beginning practitioners who then are required by the professions or registration bodies to complete lengthy post registration periods of supervised training and completion of post graduate certificates to be able for example operate a CT scanner. A more efficient use of limited fiscal and human resources might be to encourage universities and the professions to agree upon the development of a generic Bachelor of Health Practice, or to stream a number of related disciplines through a generic 'imaging' course. Graduates can then be selected by the workplace for specialist graduate entry Masters programs in, for example, Radiography and/or Ultrasound that are offered through a partnership between the University and the Health Sector. A model that works is the Master of Radiation Therapy which was developed by Monash in 2002-2003. The course is an example whereby a partnership between the university, the profession and government both at State and Federal level can short circuit and challenge traditional ways of preparing students for a career in the Health sector. Nevertheless it needs to be stressed that such an approach cannot work unless there is a willingness on the part of State Departments of Health and the Federal Department of Health and Aging to pay a training wage to graduates throughout their clinical training. The course also demonstrates how value can be added to graduates from traditional Science and Biomedical Science degree programs.

Suitably qualified graduates in either Science or Biomedical Sciences apply to Monash for entry into a 2 calendar year comprising 6 semesters that is taught at a national level using an off campus mixed teaching mode of delivery. First year of the course provides 3 clinical rotations of 5 weeks in length. Final year of the course provides a continuous 48 week period of clinical training in clearly defined task related areas of practice. Formative and summative competency based assessment of clinical skills has assured the profession that upon completion of the course graduates are capable of assuming accredited practitioner roles (PAEB, 2005).

If the undergraduate model for preparation into the allied health professions is to continue, the clinical components of these courses must be funded accordingly. It is no longer appropriate to expect busy practitioners whose primary duty is to provide services to patients, to continue to provide clinical education to students without appropriate levels of remuneration. The provision of quality clinical education comes at a cost. It is time for the Federal Government to review the Commonwealth Course Contribution Schedule and reclassify radiography as a clinically based medical science.

6.2.3 References

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