Productivity Commission Submission

Australasian College for Emergency Medicine

The Australasian College for Emergency Medicine (ACEM) is the peak body for the training of specialists in Emergency Medicine (Emergency Physicians) for Australia and New Zealand. ACEM has 831 Fellows and 1134 Trainees. The main roles of ACEM are the following:

- The development and supervision of the specialist training program in Emergency Medicine,
- The assessment and credentialing of Emergency Physicians and specialist trainees,
- Advice on and development of standards of practice in Emergency Departments (EDs),
- Continuing professional development (CPD) of Emergency Physicians and
- Liaison with other stakeholders on Emergency Medicine issues.

There are a number of issues I would like to address in our submission:

1. Workforce numbers, distribution and roles
2. Training issues, including length and content of training, and training delivery
3. After-hours General Practice Services adjacent to Public Hospitals

I will discuss these issues specifically as they relate to Emergency Departments, though a number of these issues are illustrative of the general issues affecting the health workforce.

Workforce Issues

The majority of Emergency Departments are within Public Hospitals. There are a small number of EDs in Private Hospitals, but this sector is contracting rather than expanding. Therefore, most of my comments will relate to Public Hospital Emergency Departments. The workforce of EDs has undergone enormous changes in recent years as they have often been either at the forefront or the brunt of changes in the health system. Some of these changes may provide an indication of what may happen in the future. Thirty years ago, EDs were staffed mainly with a combination of general-trained nurses and non-dedicated medical staff (either junior medical officers fulfilling a service requirement for employment, or part-time medical officers not specifically dedicated to the area). With the formation of the College in 1983, along with similar nursing organisations, there has been a massive change in the staffing profile of most EDs. The current staffing profile of EDs comprise various combinations of the following:

1. Medical Staff
    a. Specialists (Fellows of the Australasian College for Emergency Medicine, FACEM)
    b. Training Registrars
    c. Non-training middle grade (e.g. Career Medical Officers - CMOs)
    d. Junior medical staff (Interns, Residents)
2. Nursing Staff
    a. Registered Nurses (General and Specialist)
    b. Enrolled Nurses
    c. Nurse Practitioners or advanced practice nurses
    d. Community Liaison
3. Clerical Staff

    a. Registration Desk
    b. Support staff
    c. Communication Clerks
4. Allied Health
    a. Physiotherapy
    b. Social Work
    c. Liaison
    d. Pharmacy

There have been a number of drivers for the change in staffing profile and numbers:

- Changes in community expectations of the standard of medical care, generally expecting higher levels and expertise of care available on an extended-hours basis
- Improvements and changes in the care of acute medical conditions, e.g. cardiac conditions, strokes, and trauma. These have often made increased demands on time-critical interventions, though frequently consequent with a decline in the incidence of the condition due to societal changes and public health measures
- Changes in the function and services provided in Public Hospitals, particularly reductions in acute care inpatient bed numbers, decreased length of inpatient stay and reductions in the availability of outpatient services
- Changes in the model of care provided in EDs, both in response to the above drivers, but also responding to overseas models of care and staffing, such as USA
- Changes in the provision of Community-based services such as General Practice, often with a decreased availability in general, but especially outside of normal business hours
- Demographic changes, with an increased proportion of aged persons and those with chronic or multiple diseases, often with increased requirements for acute, episodic care

While there have been progressive and often rapid increases in trained staff, the supply of staff has always lagged behind demand. An example of this is the AMWAC review of the Emergency Medicine Specialist Workforce in 2002[1], where the target numbers of trainees was dramatically revised due to progressive shortfalls in training targets. The effects of staffing deficiencies lead to some of the following problems:

- An ongoing undersupply of specialist and skilled staff (including trainees), often leading to geographical maldistribution disadvantaging rural and outer metropolitan areas, as well as shortfalls in service delivery
- A continued reliance on junior and part-time medical staff, lowering the general skill levels of EDs, but also placing a significant supervision burden on trained staff, making their practice inefficient
- A high reliance on International Medical Graduates (IMGs) to make up for shortages in the medical workforce, usually working at a junior level due to their skill levels or training requirements
- A constant tension between training and service requirements for staff, often leading to either inadequate supervision or inefficiencies in care

Some workforce changes have already occurred in response to these challenges, and will need to continue with other changes not yet effected. These include changes in productivity and efficiency of the workforce, changes in the roles of individual workers, and creation of new roles either responding to new challenges, or as an alternate way to deal with an existing challenge.

These changes include, but are not limited to the following:

1. *Up-skilling existing staff roles* – in the ED context, this may include the following:
    a. Training nurses or other staff such as technicians to perform minor procedures, such as IV cannulation, suturing, cast application, etc.
    b. Training nurses in advanced practice skills. This includes nurse initiation of IV analgesia, initiation of diagnostic protocols such as limb radiology or chest pain assessment, etc. This is often achieved through the use of agreed protocols between medical and nursing staff, thus reducing the supervision requirements of senior medical staff
2. *Creating new roles* - A large amount of ED practice involves a time-consuming combination of paperwork and contacting different areas to arrange investigation or ongoing care. A number of EDs are now employing clerical staff specifically to perform these functions and so free up medical and nursing staff to spend more time in direct patient care. This has been a feature of ED staffing in North America for around 20 years, but has previously had limited use in Australia due to different staff structures and pay differentials, leading to a reliance on junior medical staff in particular to perform these tasks. Another example is the creation of roles for allied health staff in EDs, such as physiotherapists for mobility assessment and minor injury care, and the use of liaison services to improve access to community care and thus avoid admission to acute care beds. This both improves the level and expertise of care provided, as well as freeing existing staff for other roles for they are specifically trained
3. *Improved use of Information Technology (IT)* – whilst most EDs are already heavy utilisers of IT for patient data collection, reference material and investigations, it is often inefficient due to multiple systems or systems that do not communicate with each other. There is still also a substantial reliance on paper-based systems, with inefficiencies, inaccuracies, omissions and significant redundancies involved. There are also significant gains to be made in communication systems to make information exchange more seamless and less complex, saving both time and effort
4. *Staff substitution* – this can occur on a number of levels, either as a planned system or in response to workforce shortages in a particular group:
    a. Substituting consultant or registrar staff with middle-grade staff such as CMOs
    b. Substituting junior medical staff with Nurse Practitioners or Physicians' Assistants (used in North America)
    c. Substituting Registered Nurses with Enrolled Nurses
    d. Recruitment of IMGs to replace medical staff at any level

The potential advantages of staff substitution are:

- Finding staff from a different source where the existing source has shortages
- Potential cost savings by using lower cost staff, or alternatively freeing up higher cost staff for more "value-added" roles
- An ability to access staff already trained or with minimal retraining requirements

There are also a number of potential disadvantages or problems:

- Substituting staff may not necessarily have the right skills or experience, and so may require extra training, with a subsequent lag time
- There may be limits to the level a substituting group can be trained to

- The substituting group may suffer from the same workforce shortages as the group to be substituted
- The extra training costs and nature of the tasks may limit the efficiencies that are gained
- Regulatory issues may make substitutions or new roles difficult. One example of this is the regulatory requirement for interns to do a rotation in Emergency Medicine. While this is very useful in terms of experience and training, it places a significant supervision burden on more senior staff, and there is never enough staff to allow interns to be supernumerary to service requirements, which should be the ideal. Another example is the barriers within Medicare and the PBS that prevent staff other than medical practitioners ordering investigations, or prescribing medication. While there are good reasons for some of these restrictions, they do limit the ability to transfer roles to other staff members
- Budgetary constraints for hospitals, often making them resistant to changes in staff profiles. This is particularly so where there may be a lag time between implementation of changes and their ensuing efficiencies, or where the costs of the task have been hidden by either existing wage structures or a deliberate or tacit decision to leave a particular need unmet
- Resistance to change by staff, either in giving up existing roles to other staff, or taking on unfamiliar tasks

I would like to particularly discuss the issue of International Medical Graduates (IMGs). These can broadly be divided into two groups – short term residents here for a "working holiday", and medical migrants. Both groups are used to fill staffing shortfalls in EDs. This is because they are easily used to substitute for junior medical staff, and because EDs are often used as a training ground for those seeking general registration through the Australian Medical Council (AMC) Examinations. Both groups have proved valuable in addressing some of these workforce shortages, but the medical migrant group in particular place a significant supervision and training burden on ED staff for the following reasons:

- Very few, if any have worked in a similar environment in their country of origin, or are even several years removed from active medical practice
- A large number are from the Middle East, Africa and the Indian Subcontinent, with very dissimilar systems as well as medical needs in their own countries that are not being met

Whilst governments appear to see this as a short term solution, it is imperative that we produce adequate numbers of our own medical graduates, in particular taking account of demographic and lifestyle changes that are occurring.

Training Issues

There are a number of issues that relate to the training of medical practitioners that have workforce implications, and which are creating a number of pressures on the ability of the system to produce adequate numbers of appropriate practitioners in a timely manner:

1. *Demographic and cultural changes* – the increasing feminisation of the medical workforce and its issues of part-time work and "lifestyle" issues in particular are well known, but we are also seeing similar changes in the male workforce of the same generation, who are also looking to decrease their hours of work, and in particular

showing an increasing reluctance to work or train outside of business hours. This often means an increased duration of training, as they are slower to reach milestones

2. *Changes in courses* – there have been a number of changes in medical school courses that do have a negative impact on specialist training. These include the move to graduate courses, with a subsequent lengthening of medical school training, and the de-emphasis on basic science subjects. While new medical graduates are better trained in some aspects, this has not tended to cover aspects that may allow a reduction in specialist training time to compensate
3. *Rising expectations* in the skills, training and experience of GPs and specialists
4. *Divisions in training organisations*, with medical schools, then Postgraduate Medical Education Councils (PGMECs), then Colleges setting the standards and assessment for training programs, and jurisdictions, hospitals and the private sector employing both the trainees and the final product, and often providing the actual training (though in reality, there are a lot of interconnections, the trainers belonging to more than one or even all organisations at once)
5. *Lack of flexibility* in the ability to move from one training program to another, with recognition of prior training
6. *Incentives* to training and specialisation that are often poorly matched to community requirements or expectations. This includes the following:
    a. Remuneration structures - the majority of Emergency Physicians are employed as staff specialists by public hospitals. Many of them are still working under a remuneration structure that reflects an office-based, business-hours practice, with no incentives or compensation for after-hours work, often with rewards relating to the proportion of private patient billings that can be achieved or the number of procedures performed, rather than the service or skill provided
    b. Hours of work – as remuneration structures have not kept pace with changes in practice, wide differences in hours of work required in different specialties make some unattractive, often without corresponding differences in remuneration or compensation
7. An increasingly mobile training and specialist workforce, which makes recruitment and retention in less attractive areas and specialties increasingly difficult

There are a number of potential solutions:

1. *Reducing the length of training* – there are a number of possible ways to achieve this:
    a. Moving from time-based training requirements to competency-based requirements. This seems attractive and logical. It allows trainees to train at their own pace and potentially allows training to be more efficient. It is not a comprehensive solution, though. While it works for skills that are easy to define and measure the performance of, it is difficult to achieve for more nebulous skills, such as those espoused in "CanMEDS 2000"[2]. There is also an aspect of specialist training that can only be achieved with an element of experience and maturity, which requires time to achieve. One example of where we have tried make the move to competency-based assessment is in our training for paediatric emergencies. Previously, this was time based, but is now based on a minimum number of cases seen and procedures performed, allowing the goal to be achieved earlier if possible.
    b. Improved coordination between College training programs – whilst there are a number of common elements in training for most specialties, they tend to be mainly in the earlier stages of training, and are often already provided in a

common format. An example of this is the common pathway for interns and resident medical officers. The issue of portability of training has received a lot of attention from critics of the specialist colleges. Again, this is easier to achieve at the earlier stages of training, but does require hard work. We have attempted to achieve this in relation to comparisons between our Primary (Basic Science) Examination and those of other colleges. The portability of other aspects of training is obviously dependent on the applicability of those skills to the specialty the trainee is transferring to. For a generalist field such as Emergency Medicine, there is often a large amount of training that is portable, but this is obviously more difficult for narrower fields of expertise. Unfortunately, the trend for greater specialisation and a narrowing of the field of an individual's expertise works against this.

   c. Narrowing specialist training at an earlier stage – this has been a trend in countries such as the United States for a number of years, where senior medical students are often already choosing learning modules that are focused on a particular specialty. We are also seeing a slight trend towards this in Australia. It has the advantage of limiting the amount of training and experience time not spent on the targeted specialty. It does have several disadvantages, though. The trend for greater and narrower specialisation often means that trainees now lack general skills and experience. This is being seen particularly with training for surgical subspecialties and even some internal medicine subspecialties. The ability of trainees and specialists to deal holistically with patients is compromised, and leads to an increased compartmentalisation a patient's problems. This may be alleviated partially with better organisation of multidisciplinary teams, but it is a trend that is very difficult to counter, as the increasing complexity of medical care makes it very difficult to maintain adequate generalist knowledge.

2. *Better matching training outputs to community needs* - This is a difficult area. The initial difficulty is determining what the community need is. While this is relatively easy at any one point in time, the delays from implementation of a change in the training structure to achieving the desired output is 10-15 years. The skill therefore is in being able to predict what the needs will be at that time. Whilst we know what the general trends will be, there is a lot that is unknown, and mistakes such as the shortages in medical graduates that we are now trying to address demonstrate the consequences of "getting it wrong". The next difficulty is then having the ability to guide trainees and potential trainees in the right direction. A recent study by AMWAC[3] demonstrates that very few of the incentives for medical graduates to choose a particular specialty have anything to do with what the community requires. In the relatively free market environment that medical training exists, incentives have to be put in place to prevent a continued deterioration in the current geographical and specialisation maldistribution that we are already faced with.
3. *Matching work practices and patterns to needs*. This is important both at a both a training and a service level, and has a number of different aspects to it:
   a. Work environment – it has been well recognised that workers are more likely to seek a career in a setting that they have had some prior experience in. In order to attract the workforce to rural and regional areas, as well as different practice settings outside of the traditional hospital environment, it is important to provide training opportunities in these settings. Whilst the Department of Health and Ageing are trying to address this though the Medical Specialist Training Steering Committee, there are a number of barriers to achieving this

aim. Firstly, there is the need to have trainers and supervisors available in the environment. For example, this is proving to be an enormous barrier to provide training and supervision in regional settings in Emergency Medicine. Secondly, the funds available to support trainees in these settings is either non-existent or provides a number of perverse incentives. Rural and regional hospitals are often subject to severe funding shortfalls that limit their ability to either hire appropriate supervision staff or to provide necessary support for trainees, such as appropriate accommodation or flexible scheduling arrangements. Training in community settings is limited by reliance on Medicare for funding, which either does not include a training subsidy, or even penalises having a trainee by paying substantially less for that trainee to provide a service.

b. Remuneration – whilst health funding is not an explicit part of this inquiry, the structure of remuneration for medical practitioners contains a number of barriers to improvements in training or practice. The Commonwealth Medical Benefits Schedule (CMBS) is heavily weighted in favour of procedural medicine, with a not-surprising maldistribution of trainees and specialists to those specialties that have a number of profitable procedures as part of their practice, particularly some surgical subspecialties. This has also allowed such specialties to use market forces in their favour, both in terms of restricting trainee numbers, and in controlling demand. Both the CMBS and most salary structures for medical practitioners and specialists provide insufficient incentive to encourage work outside of traditional business hours. This, combined with the generational changes we are seeing are making it increasingly difficult to provide adequate medical services after-hours and on weekends. This is going in the opposite direction of the community, both in lifestyle and expectations.

c. Training for new roles and modalities – once new roles or modalities develop, both colleges and jurisdictions need to be flexible, so that both can play their part in developing the next generation of practitioners.

4. *Changes to the administration and supervision of training* – there have been a number of attempts to improve specialist training by changing the structure of its administration or supervision. These are often attempting to aim at perceived deficiencies of the existing arrangements, or to allow other organisations to break into areas perceived to be "closed shops". There are moves by universities in particular to move into the territory traditionally occupied by the specialist colleges. They often cite as examples the result of the Calman report in the United Kingdom, with the establishment of post-graduate deaneries to run training programs, and similar structures in North America, where a lot of postgraduate training is run out of universities. There are also attempts to try to unbundle training from service requirements, such as the Clinical Training Authority in New Zealand. There is no doubt that the current system is subject to fragmentation. Generally, state and territory jurisdictions through their public hospital infrastructure provide the employment for both trainees and trainers, with colleges providing the frameworks for the settings of standards and the assessment of training. In some cases colleges also have a powerful role in controlling trainee numbers and locations, but is generally in the minority. The current system has a number of strengths, with college fellows providing training largely on a *pro bono* basis, combined with their service commitments. This has allowed costs to be controlled for a number of years. On the other hand, it has therefore hidden a lot of these costs. The reality is that regardless of whether colleges,

universities or other organisations administer specialist training programs (such as the Australian Government for general practice training), it will still fall to the same group of people to provide the training.

After-Hours General Practice Services Adjacent to Public Hospitals

Over the past ten years we have seen a progressive decline in the provision of after-hours general practice services. This has led to some parts of the community being underserviced, or to the perception of the demand leading to overcrowding of public hospital emergency departments. This has led to various attempts to alleviate the problems, such as establishing GP services adjacent to public hospitals.

There are a number of reasons why this is an issue:

1. An increasing move to a "24-hour" lifestyle, with increased expectations that health services follow the same trend as the rest of society, being available on an extended-hours basis
2. The generational change in the lifestyle expectations of medical practitioners, but particularly GPs, with reduced willingness to provide services after-hours. Some of this relates to feminisation, but as I have stated previously, this is more a generational trend than a gender-specific one.
3. Decreasing relative remuneration of after-hours general practice, making it both unprofitable and undesirable to doctors. Whilst there has been some attempt to address this with recent changes to Medicare, it is probably too little too late
4. Technological changes in medical care, with more that can be done in the acute setting, and often requiring early or even time-critical assessment, investigation and treatment
5. Increased requirements for episodic care – with the ageing of the population, and the raised burden of chronic disease, there is often an increased need to manage acute crises, often made more complex by the issues of age and chronic disease
6. Access to care – a number of areas in Australia are underserviced by General Practice even in-hours, as well as difficulties in accessing specialist care, often leading to the attempt to use emergency departments as a way to access this care
7. Emergency Department overcrowding – this has traditionally been blamed on general practice patients trying to access care through Emergency Departments, but this logic has a number of flaws:
    a. Most ED overcrowding in Australia is due to "access block"[4], which relates to the inability of admitted patients to access inpatient beds in a timely manner. While this is the cause, there is no doubt that lower acuity presentations to EDs (including, but not limited to GP patients) are the group that suffer increased waiting times and delays as a result
    b. A notion that all low-acuity patients (usually referring to Australasian Triage Scale[5] categories 4 and 5) are GP-type patients. Both the wide differences in the average hospital admission rates of these patients compared to general practice admission rates (usually 10-20X) as well as the fact that a significant number of these patients are referred to EDs from general practice demonstrates that this is not the case

There are different ways that this can be addressed:

1. *Stand-alone GP practices or medical centres* – this was certainly the popular solution in the 1980's, but as Medicare restricted the practices of entrepreneurial medical centres and made after-hours general practice unprofitable (both by reductions in fees and workforce restrictions such as Vocational Registration of general practice and the "Provider Number Legislation"), this declined
2. *After-Hours GP practices adjacent to Public Hospitals* – these often have their infrastructure provided by the public hospital, including access to the hospital's diagnostic services, but rely on their income from Medicare billings. This provides some potential advantages for hospitals by diverting lower acuity patients from Emergency Departments and being able to shift some of the costs to Medicare. They have a number of problems, though:
    a. The numbers of patients diverted from EDs are low (often only 1-2 patients per hour maximum), often at a high marginal cost
    b. Difficulties finding experienced staff, who are often paid at a premium (often 2-3x the cost of ED staff, with a lot less responsibility and skills)
    c. A proportion of patients will still need to be referred to the ED, reducing the efficiency

    We are still awaiting the final report from the Department of Health and Ageing of their evaluation of their trials of this kind of practice.
3. *Enhancing Emergency Departments* to better deal with this workload – once staff costs are accounted for, the marginal cost of treating these patients in an ED is relatively low, with the advantages of the hospital services behind it. A number of EDs are doing this by setting up dedicated areas ("Fast-Track", "See and Treat") which reduces the impact other ED activities on these patients. There still are some disadvantages:
    a. In most cases, these patients will be seen by either junior medical staff or non-general practice trained staff, with a reduction in the standard of care compared to a dedicated general practitioner, but accepting that there are often limited options available anyway
    b. These patients are not the prime focus of EDs, and so will still be subject to prolonged waiting times when the ED is busy
    c. There is limited continuity of care, though this tends to be limited in any situation short of the patient's usual GP providing an after-hours service

The best solution often depends on local circumstances, but I believe should be a combination of both providing better remuneration and thus incentive to GPs to provide after-hours services, but also continuing to enhance public hospital EDs to deal with these patients. As EDs are often the only source of care that is does not require a co-payment (given the decline in bulk-billing rates), it is usually the most attractive to the public, even if they have to wait.

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