Internal Medicine Journal 2005; 35: 507–509

EDITORIAL

Dilemma of medical education re-visited

Our editorial on medical education dilemma in this Journal,[1] and our earlier opinion-piece on social medicalization and medical socialization,[2] have generated several letters of concern about our 'anti-medical' views and some private communications of support.[3] The Royal Australasian College of Physicians' (RACP) Annual Scientific Meeting (ASM) session on this subject in May 2005, which we presented, demonstrated widespread support among those attending for the proposition that there is and will be an increasing crisis in health workforce numbers and disposition. The challenge put to us at that meeting was to identify solutions. Some suggestions that address the workforce issues are the basis of this follow-up editorial. The (even more demanding) problem of producing sentient and professional medical graduates will be considered at a later time.

One option is the *status quo*. We have used New Zealand demographic data to predict the likely health workforce shortfall based on current medical and nursing student numbers, and existing levels of professional immigration and recruitment;[4,5] the relative increase in the overall health workforce needed to maintain current levels of service for 2021 would be between 40 and 70%. This represents a best-case scenario for Australia because there will be relatively even fewer younger people there. Noting that some rural and indigenous communities in Australasia already lead sicker, shorter lives, we would also argue that current levels of health services are inadequate and that any strategic ambition based on the maintenance of such levels is, at best, modest. It is also noteworthy that the training lead-time for medical practitioners, and to a slightly lesser extent nurse practitioners, is such that the recruitment of this additional workforce would need to have begun this year. In the absence of such an increase and/or some other revolution in disease prevalence or progression, or in health service delivery, the only foreseeable outcome is the type of dichotomy that currently exists in the USA.[6] Although that nation spends almost 15% of its gross domestic product on health, an estimated 40 million citizens have essentially no access to rudimentary, let alone comprehensive, health care. It is also highly probably that the affluent 'worried-well' will consume an increasing proportion of the available health resource and that health quality 'gaps' will widen further. Moreover, the suggestions for health service reforms based on monetarist ideology, although seemingly discredited, smoulder on close to the political surface as attractive solutions, utilizing concentrations of affluence and mythical trickle-down sequelae.

Putting that first option aside, we identify four general categories of solution to the health workforce educational dilemma. They are not mutually exclusive.

1 The years of morbidity in later life could be compressed. This is unlikely to contribute significantly to an effective outcome. Imminent epidemics of obesity and diabetes will act against such compression. Health expectations appear to be increasingly exaggerated and medicalized,[7] as evidenced by the concurrent growth in disciplines such as appearance (cosmetic) medicine in the allopathic ranks, and of increasingly irregular practice by other groups of health workers. Our concern is that even if morbidity is compressed, this will not necessarily translate into a reduced demand for doctors. A healthier and almost certainly better informed population will require doctors to translate what will be an ever-burgeoning plethora of health information, and to manage community demands for health care in the context of a utilitarian allocation of relatively sparse public resources.[5] Most of these issues and our attention to them is not new.[8–10]

As compared to the increasing relative numbers of super-specialists in tertiary and quaternary positions, these health management roles will require generalists who have the skills to practise individual patient care within a population health approach. The competencies we see as being necessary are outlined as follows:

- Quickly assess and prioritize the multiple care needs of people with complex multisystem and/or undifferentiated illness in an evidence-based cost-effective manner.
- Work collaboratively with other doctors and health-care workers as part of and/or as a team leader.
- Identify, organize and supervise aspects of health care that may be devolved to others within a clear reporting framework.

2 The elements of the education and health systems could be better aligned with each other and with patient care needs. In the USA, there is a strong argument that the elements of the health-care system needed for future demands are already in place, but that these are poorly aligned and subject to perverse incentives.[11] The key players in the Australasian scene are the professional councils, postgraduate colleges, tertiary educational providers, state and federal ministries of health and education, and the health-care providers. Development of explicit respective contributions and shared responsibilities for education and workforce development are an essential preface to any reform. As we have cited before,[1] an improvement in productivity is unlikely to result from past or present Government initiatives. Although Government is aware of the current and imminent health workforce crisis,[5] we can find no relevant cost-efficacy data to support recently introduced schemes such as subsidies on some fees, capitated care systems or clinical nurse practitioners.

A relative values study and correction of doctor remuneration anomalies is urgently needed; the RACP is encouraged to take the lead in lobbying Government and fund managers. The workings of the Productivity Commission in Australia will be watched with interest. It needs to be remembered that the current procedure bias of medical remuneration stems from the pre-World War II genesis of the Blue Cross and Blue Shield schemes in response to the threat of communism and socialism to medical income. These global factors no longer operate. Any review of relative values also has to be seen in the context of graduate debt influencing career choice and location. This perverse effect of student debt is now of sufficient magnitude to justify careful re-consideration of bonded cadet schemes, other ways of forgiving debt for priority workforce roles and/or of capping numbers entering those specialties that are already well subscribed.[12]

The duration of both undergraduate and postgraduate training must be reduced. This will require careful crafting to take into account the generally fewer hours that junior doctors will work. The Faculty of Occupational Medicine of the RACP has already taken the lead in this process and now has an advanced training programme that is competency-dependent and time-independent. A shift to modular programmes that are outcome-based rather than time-based will facilitate similar reform at an undergraduate level.

It is also important that limits be placed on doctor litigation to reduce over-servicing and to re-direct care from the legal protection of the practitioner to the health needs of the consumer. A mock-trial run by the Medical Protection Society at the 2005 RACP ASM was noteworthy for the extraordinary difference in practice attitudes between the 'litigation-prone' Australian Fellows and the 'Accident Compensation Corporation-protected' New Zealand Fellows.

Finally, it is essential that trials of new forms of health providers occur. We intend to pilot such a trial in association with a local Iwi (tribe) using as a model the University of Southampton Foundation Degree in Health Care/Certificate of Higher Education in Health Support (Health Care L490\FD\HC).

3 The percentage of the community employed in health services could be increased and/or greater output could be obtained from the current workforce. The effect of every doctor working an additional hour per week in New Zealand would be equivalent to an additional 500 doctors in the workforce. However, an opposite trend is far more likely given the increasing feminization and unionization of the workforce, the greater attention being paid by modern practitioners to 'healthier' work-life balances, and, because of the concern about the safety of practice by overworked, tired doctors.[13] Increasing recruitment into medical schools for many people will also be hindered by the inevitable debt,[14] and by the decreasing relative, and soon perhaps actual, numbers of younger people.[4,5] Other negative factors will include ongoing and increasing international and private (vs public) recruitment pressures and highly profitable but low utility disciplines such as appearance medicine. The overwhelming conclusion is that to be appropriately effective in 2021 the health workforce will need to be differently configured and/or work differently.

- New grades of health-care worker are likely to be required. The UK has taken a blank sheet approach to this and suggested new types of practitioner with skills in caring for older people in the community.[15] In New Zealand, the concept of a physician assistant is being considered as a method of reducing the need for resident medical officers and to enhance the continuity of patient care.
- We believe it makes little sense to move significant numbers of fully trained practitioners from one area that is already experiencing shortages, such as nursing, and to retrain them over months to years for these novel roles. A barrier to any reformation is guild-like behaviour. Although it might seem easier to initially prove the concept, say of nurse endoscopists, with a group that already has legitimacy in the health-care system, this may reinforce the assumed necessity of the traditional doctor–nurse paradigm. It might be better to start with a new grade of health worker trained solely for the purpose from the outset.
- The new grades of health workers would need to be recruited, valued and rewarded appropriately. In terms of outcome for patients and families, the economics should prove favourable to both taxpayers and the private system.

4 We believe that to effect the scale of changes required, it will be necessary to identify and employ disruptive innovations.[16] It is time for meaningful local trials of truly integrated care, electronic patient information and monitoring systems, telemedicine, and for field-trial employment of new grades of health-care workers such as non-physician endoscopists, technician anaesthetists and Iwi-based community health providers, etc. These trials will not be easy and will require strong drivers to establish and sustain. It is inevitable that those being disrupted will oppose the trials and be hypercritical of seemingly positive results; evidence for this inevitability includes the current relatively high levels of coronary artery bypass graft surgery despite the access to interventional cardiology, which for those patients who have limited vessel disease has a similar 'number needed to treat' and 'higher number needed to harm'.

It is our strong recommendation then that the RACP encourage debate among Fellows in the context of these solution categories to identify ways in which practice could be changed, innovations trialled and patients benefited, both individually and collectively. The time for reform is short.

Received 25 May 2005; accepted 2 June 2005

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