Where to from here for Medical Schools?

Brad Stone
Third year student
Dunedin School of Medicine
University of Otago

Prior to beginning medical school, Brad studied commerce at Otago University and worked in the financial services sector in Europe. He has become involved with the NZMSA since beginning his medical studies, and continues to be interested in the delicate balance of health provision and scarce financial resources, as well as where the profession is heading in New Zealand. He hopes that he might be involved in addressing some of these issues in his future career.

Is medical health still a public good?

The provision of a countries' health care is the most fundamental of socialist notions. Taxpayers provide to their central government revenue that is used to, amongst other things, choose, educate, train and employ those members of society who take the responsibility of maintaining the overall good health of a nation. But is this public good indeed just that any more in New Zealand?

The most damning implication of all is that the provision of medical education itself is becoming less associated with providing Aotearoa with a future wave of health providers. Tertiary fees are increasing across the board, but to lump education of junior doctors into the 'investment in their future' argument, as we might well do with accountant, lawyers, architects and other private sector professions, detracts greatly from the idea that medical health is, and will continue to be, a public good. Even the most clumsy of financiers are aware that financial investment should reap financial reward. Offshore jobs, highly paid specialties, maverick junior doctors holding out for locum wages – the downstream workforce effects of medical students treating their education as an investment in their fiscal security, instead of an investment in improving national health across the board, paints not a pretty picture. With no likely immediate appeasement to increasing fees and the prospect of full-fee paying students entering the medical student ranks, the cost of a students financial 'investment' is becoming so exorbitant that the expectant rewards are forcing both the overall cost of medical health provision through the roof, and those same medical health providers out of NZ, in some cases indefinitely. Recent surveys of the career and emigration intentions of Christchurch Clinical School students after graduation confirm that the net effect of increasing student debt levels is that the NZ medical workforce is suffering, both in terms of numbers of doctors in certain specialties (GP, psychiatry) and numbers of doctors in general[1]. In the best interests of NZ's general health, future medical students should not be forced into a situation that they consider their degree as an investment in their career, but an investment in the future of their country. Although funding is an issue that should be addressed by the central government, there is also plenty that can be done by the medical providers to ensure that medical health remains a public good, and is delivered in the most optimal fashion.

Medical School Intake

The winds of change are whispering in the breeze of NZ's major medical education providers. The most influential western countries – America, the UK, Canada and Australia are all usurping their traditional methods of medical education, and opting for inspired new methods of not only teaching, but selection of medical candidates. Is it about time NZ followed suit?

Demographic Structure

From a solely holistic point of view, if medical care is to be perceived as a public good, surely the demographics of those souls lucky enough to gain admission to medical school should accurately reflect the demographics of the entire population. Ideally, those same students should be academically capable enough to handle the rigours of such an arduous course, compassionate enough to make those who are ill feel less self conscious and scared, and sufficiently well dispersed in their vocational interests and residential preferences to take up the relevant medical posts that require filling. Oh, and if they remained in the country to practise for a while, that'd be just dandy too.

Let's consider those being granted the privilege of being educated as the countries future doctors. Despite a population that is nearly 20% Maori or Pacific Islander[2], less than 3% of graduating medical students had this ethnic background in 2003[3]. Despite the fact that nearly 10% of our GDP is derived from agricultural, horticulture, forestry or fisheries[4], and over 40% of the nation live in settlements of 200,000 or less (including over 15% in a settlement of 1,000 or less)[5], rural students are still underrepresented in medical class intakes. Currently there are a number of initiatives being followed up by a variety of groups to encourage an increase in those underrepresented demographic groups into medical education. The medical schools make a number of places available to those persons that meet the criteria for entrance as a member of those demographic groups. But medical entrance and financial support only solves part of the problem. It cannot be expected to accurately bring medical school demographics into line with the population demographics. And it definitely will not ensure that the areas of the medical workforce being addressed (rural, Maori, Pacific Island health) will be catered for by those they have granted entrance to under the given scheme in the future when they graduate[6].

Other countries have displayed innovative ways of addressing the very same issues that New Zealand is presented with at the current time.

In response to improving demographic representation amongst medical students, Australia have introduced rural entrance places, funding, ongoing training and bonding schemes to encourage persons of rural origin (or those interested in working rurally) to train and return to an area of workforce shortfall. Maastrict University in the Netherlands applies a minimum academic achievement level, and then draws successful candidates from a ballot, reasoning that as long as the candidates are of sufficient academic aptitude to cope with the course, then a fair demographic dispersion of students' best serves their future workforce. While this may be harsh on those individuals who have done sufficiently well to distinguish themselves from the pack, it does improves diversification, and the question begs asking: Is it any less likely to produce a capable, compassionate workforce than other measures (such as solely academic grades or UMAT) which research suggests cannot conclusively assess a students aptitude for the career[7,8] and can almost certainly not be relied on to resolve current specialty shortfalls? With current workforce shortages in the areas of rural practitioners, GP's and psychiatrists, should the medical admissions board be inclined to focus less on the fairness of entry to the individual, but more on the future workforce implications of those who are selected?

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Graduate Entry

But what about other aspects of medical entry? There are many positive arguments for New Zealand changing their entrance protocol to a completely graduate entry stance. Research in the UK has been inconclusive in determining whether the age of entry to medical school results in better or worse performance, and higher or lower rates of dropout[9]. However, interestingly, some research has shown that prior study, particularly of humanities, correlates with better clinical performance[9].

As such, Australia has recently opened Flinders in Brisbane, its first exclusively graduate entry medical school, which also allows for prior study in areas outside health sciences. This correlates well with the American system, which has been operating under graduate entry medical schools for some time. Making a career decision at a young age, which can be based on romanticised notions, or as a result of a desire to simply prove they can win the health science rat-race, is not necessarily an optimal way to make a decision that has significant implications on a persons future life, and the livelihood of those they are to care for. This can cause despondency further down the track, and result in increased drop out rates. Furthermore, some research and personal attestation from lecturers has pontificated that graduate entry students are easier to teach and get more benefit from teaching[9,10] In turn, it would be reasonable to assume this would have a positive effect on recruiting and maintaining academic staff (another problem likely to require addressing in the not-too-distant future).

Studies have shown that those students with a rounded educational background, such as in the sciences AND humanities (or even humanities alone), often correlate to better clinical practitioners[9,10]. If this is so, would introducing post-graduate entry only to medical schools in NZ therefore reduce the need to spend such a large portion of undergraduate teaching on non-biomedical subjects, those subjects aimed at bringing a PC, smiling health workforce through the ranks? Not to say that this isn't an important element of healthcare, but can anyone really tell me that person-to-person interaction, empathy and compassion is really something you can uncork and serve up in 3 lectures and 2 tutorials a week? Perhaps the excellent clinical practicing of graduate students is as a result of that commodity that cannot be bought sold or stolen; life experience. If we allowed only graduate school medical entry as they do in the States and increasingly in the UK and Australia, maybe we could reduce the hours devoted to the 'Psychosocial Theory of Change', and instead focus on such things as the seemingly insurmountable amount of anatomy that should be learnt as an undergraduate.

Should NZ change the way it provides medical education?

So how do we go about teaching these graduate-entry, demographically-accurate students we have decided to inundate our medical schools with? The current method of spending a number of pre-clinical years studying textbook theory in an academic environment appears to be under threat. At least one medical school in Australia (Newcastle) has already moved to a syllabus of entirely problem based learning (PBL). Because lets face it, the academic criterion set for entry into med school means that pretty much all successful entrants are capable of interpreting, sorting and feeding back knowledge garnered from a text book or lecture (at least for the duration of the exam period). But the real beauty of medicine is its inherent art. The ability to take minute pieces of information, some relevant, others maybe not, with inconclusive test results and varying patient backgrounds, and to turn these into accurate, timely diagnoses. To treat stricken individuals with compassion and respect. To know your own limitations, but still be able to believe in your own ability. These intangibles are not taught in any classroom, but on the wards. Wizened old doctors talk of the need to see cases, and more cases, to build clinical skills and knowledge. Why not start straight away? The theory can be learnt by students on the go and those attributes that make good doctors, rather than the ability to regurgitate information easily garnered these days from ones' palm pilot, can be instilled immediately. Not only that, but theory applied to practical situations has far more relevance than purely theoretical pre-clinical years can hope to create, despite the excellent quality of teaching received in this country.

Problem based learning, and earlier exposure to ward based teaching are extremely teacher-intensive methods of providing medical education, but the continuing pursuit of excellence has always been the mantra of the medical profession, as it strives to best serve the public good.

Conclusion

The selection of medical students, and the provision of medical education to these students, are but two cogs in the supply of medical healthcare as a public good to a nation. But in creation of the best quality medical graduates and optimal health care to a nation, all elements of the machine must be working in an optimal fashion. A team is only as good as its weakest member, and medical providers have a vital role to play in maintaining the provision of New Zealand's health care as a public good.

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