Medical school admission and workforce: "Which crystal ball?"

Dr John Adams
Dean
Dunedin School of Medicine
University of Otago

Dr Adams is the Dean of the Dunedin School of Medicine and current Chair of the Medical Council of New Zealand. A psychiatrist by training, Dr Adams has a long interest in professionalism and ethics. He teaches professionalism in the undergraduate course in Dunedin, and as Dean has taken a vital interest in the development of the undergraduate curriculum, especially in the further development of general practice and rural programmes.

How many doctors will we need in 20 years time, where will they be needed and with what skills and qualities? Which of these parameters can be manipulated by admission policies into Medical School?

Answering these questions depends on 20 year plus predictions of health need, models of care, migration patterns, financial resource and community expectations. Putting any plan into operation is bedevilled by the at least 11 - 13 years that it takes for someone to acquire a vocational qualification from the time that they enter Medical School.

There is no doubt that we will need increased numbers of doctors. There will be growing health needs with an ageing population, doctors are working less hours, and there is the looming retirement of a significant portion of our aging workforce.[1] The Medical Training Board in 2008 recommended another 100 students a year be admitted to medical schools by 2012.[1] The present government went further than this and promised 200 additional medical students per year. The medical schools are well advanced in planning to admit this increased number of students. 80 of these additional places will be funded by next year. A challenge will be maintaining and improving quality with increasing numbers. Essential to the success of the plan for greater self sufficiency will be training posts to retain these young doctors in New Zealand.

But who to select? Do we have an agreed definition of a 'good doctor' – and which admission processes can preferentially select people who will meet the definition? The answer is unfortunately no. Academic success in medical school can be predicted by academic grades before admission, but less clear is whether those with higher grades make better doctors after medical school. In addition, academic grades only may selectively disadvantage those from less academically strong secondary schools. Australasian medical schools are using, in addition, a variety of selection methods including interview and UMAT in an attempt to select students with characteristics that are thought compatible with the requirements of modern doctors. The answer as to whether this is successful awaits research that is underway on future progress at medical school, and the long term tracking project of outcome for medical students that has been initiated across Australasia.

Unpublished 2009 MCNZ workforce data shows that our workforce continues to age.

We know that there are some demographic requirements for our workforce into the future. For instance, we need more doctors in our rural and provincial areas, and we also badly need more Maori and Pacific Island doctors. There is some limited evidence that assessing personal qualities prior to admission may result in a greater spectrum of students more representative of the community.[2]

Affirmative action policies exist in both New Zealand schools to increase numbers of Maori and Pacific Island students. Both are well under represented in our workforce demography compared to the general population. The initiatives have been successful, but more so in improving the number of Maori students.

Can we predict at the time of admission which people will go on to train in specialties where those skills are or will be in greater demand? Of all the pre-selection characteristics, coming from a rural background has consistently proved the only real predictor of future rural practice.[3] New Zealand already has 40 places across the two schools tagged for those from rural environments, and next year's increase of 20 places will also be reserved for those from a rural area.

It is less well known that the original 40 ROMPE places were also available for those who might follow a mental health career choice. The problem has been how to define any pre-admission characteristics in the absence of any clear evidence. The consequence has been that this facility has been seldom used.

More doctors are not only required in psychiatry and rural medicine. Changing models of care will see greater emphasis on the role of the general practitioner and the generalist. How do we select students who are likely to want to enter these disciplines? Presently, we do not know.

One group is advocating a very comprehensive approach including career self-assessment, academic ability, cognitive and personality assessment and interview.[4] A recent excellent review of student selection in New Zealand concluded that increasing the numbers of students admitted from rural areas and of Maori and Pacific island decent would have "a positive effect on the future workforce", noting that other links remain unproven and do not justify any changes to current policy.[5]

Watch this space.

REFERENCES

1. The Future of the Medical Workforce.
Wellington: Ministry of Health, 2008.

2. Lumsden MA, Bore M, Millar K, Jack R, Powis D.
Assessment of personal qualities in relation to admission to medical school.
Medical Education 2005;39: 258-65.

3. Rourke J.
Increasing the number of rural physicians.
CMAJ 2008;178(3):322 - 25.

4. Bore M, Munro D, Powis D.
A comprehensive model for the selection of medical students.
Medical Teacher 2009;39:1066-72.

5. Poole PJ, Moriarty HJ, Wearn AM, Wilkinson TJ, Weller JM.
Medical student selection in New Zealand: looking to the future.
NZMJ 2009;122(1306):88 - 100.