

References

1. Online Archive of NP Cost Effectiveness and Quality of Care [Internet]. Texas: American Academy of Nurse Practitioners. 2007 – [cited 2009 Jan 13]. Available from: <http://www.aanp.org/NR>
2. Paez K, Allen J. Cost-effectiveness of nurse practitioner management of hypercholesterolemia following coronary revascularization. *J Am Acad Nurse Pract* 2006;18(9):436–44.
3. Ettner L, Kotlerman J, Abdemonem A, Vazirani S, Hays R, Shapiro M. An alternative approach to reducing the costs of patient care: A control trial of the multi-disciplinary doctor-nurse practitioner (MDNP) model. *Med Decis Making* 2006;26:9–17.
4. Horrocks S, Anderson E, Salisbury D. Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. *BMJ* 2002; 324:819–23.
5. Roblin D, Howard D, Becker E, Adams E, Roberts M. Use of midlevel practitioners to achieve labor cost savings in the primary care practice of an MCO. *Health Serv Research* 2004;39(3):607–26.
6. Chenoweth D, Martin N, Pankowski J, Raymond L. Nurse practitioner services: Three-year impact on health care costs. *J OEM*. 2008;50(11):1293–8.
7. Laurant M, Reeves D, Hermens R, Braspenning J, Grol R, Sibbald B. Substitution of doctors by nurses in primary care. *Cochrane Reviews* 2006.
8. Kelleher Keane A. Advanced nurse practitioners: Improving patients' journeys. *Emergency Nurse* 2008;16(6):30–5.

The nurse practitioner provides a substantive opportunity for task substitution in primary care

Professor Des Gorman

BSc, MBChB, MD
(Auckland), PhD (Sydney)
Head of the School of
Medicine
The University of
Auckland
Private Bag 92019
Auckland
d.gorman@auckland.ac.nz

NO

The moot that nurse practitioners (NPs) provide a substantive opportunity for task substitution in primary health care in New Zealand is not borne out by experience and is potentially in conflict with a fundamental objective of most health service planning, which is that primary health care and/or general scopes of practice become the usual habitat of doctors.¹ This is probably the only way in which the profession can have a rational place in future health systems. It is also a likely requisite to an outcome- and cost-effective health service.²

History is the usual best predictor of the future. The New Zealand Primary Health Care Strategy (PHCS) was introduced in 2001 and has a core of community partnership and incentive-free capitation as a means of paying general medical practitioners (GPs). Predictably, GP income has increased, workloads have decreased and referrals for investigations and to secondary and tertiary care facilities have increased, although the data for the latter are questionable. Based on respective council data, the decrease in GP capacity is

about 12.5% or the equivalent retirement of 250 GPs. The expectation was that NP-led chronic care clinics would compensate for any such decrease. There are 47 NPs in New Zealand; 15 of these are in primary health care and eight prescribe. This reality illustrates the extent to which the architects of the PHCS engaged in 'magical' thinking. In contrast to a common obsession that employment models limit NP engagement,³ qualitatively the barriers would appear to include GP and consumer attitudes, a sense amongst nurses that the required training to become a NP is onerous and time-punitive, a strong desire among nurses to maintain part-time work that accommodates their own and their family needs, and an apparent reluctance to accept roles that result in significant clinical responsibility. These qualitative hypotheses need study if New Zealand is to match the success of such schemes in the UK.³

The milieu of this debate is worrying. The WHO estimates a current global shortage of about 4.3 million health workers.² New Zealand has only 70% of the OECD per capita average for doctors and 51% of these are foreign-born.⁴ The Nobel-Laureate Robert Fogel predicts a doubling of health budgets in Western nations by 2020 and this seems a reasonable prediction for New Zea-

land.⁵ The concern is the ageing of New Zealand and the inability of a small country to support a health system that (by 2025) will employ one person in five and consume 20% of GDP.² Not surprisingly then, careful attention is being paid to the future role of the doctor.^{1,2} Treasury is asking the reasonable question as to the possible role for a scientifically predicated and evidence-based health provider who takes 15 years to train to vocational independence at the cost of several million dollars. Answers to this question lose credibility once the cognitive domains of patient differentiation, care planning and oversight are exhausted. The data also suggest that utility is largely limited to general scopes of medical practice.^{2,6} If medicine is to have a strong role in future health workforces then largely it will be at the front door of health care facilities interpreting patient complaints, planning care and referring to NP and other health profession-led intervention clinics.

If the key role of the doctor in 2025 is to be a health professional who has a largely cognitive function and is primary and generalist care-oriented, is there really a scope for meaningful workforce substitution in the primary health care setting? Certainly, there are no data to show cost- or outcome-efficacy for a non-doctor patient differentiation role.^{1,3} Indeed, the experience of the military and others is the opposite. It is reasonable to conclude that more rather than fewer doctors are needed in the front line of health care, translating the breathless patient into a pneumonia sufferer, or an asthmatic, or as being in heart failure, having a pulmonary embolus, or as hyperventilating, etc. This is why the moot misses the point—role substitution in primary health care is a good idea, but not to reduce the reliance on doctors, which is implicit in the moot, but to ensure an alignment of health professional and task.

The NP concept deserves closer attention as the principle is sound and the employment of a larger NP population in future health workforces would seem as inevitable as it is sensible.³ The question that needs an answer first here is why did this not occur as a natural evolution of the PHCS (and what can be done to address the consequently identified barriers)? Second, which

of the roles that are identified as being suitable for substitution involve nursing-related transferable skills and knowledge? That is, the question ‘why does this need to be done by a doctor?’ does not default in the negative to it being a role for a NP, as the follow-on question must be ‘why does this need to be done by a nurse?’ The underlying problem is that although it might be easier to use nurses in novel roles given that they already have legitimacy in health care, the likely biggest problem in future health workforces will be recruiting nurses to, and retaining nurses in, traditional nursing roles which, far from diminishing, will increase.^{7,8} Substituting doctors with nurses then may amount to robbing an impoverished Peter to pay a much better off Paul.

What then of the moot? If NPs are the solution to the primary health care need in New Zealand, then the evolution of that solution has not occurred by natural selection. The need for a doctor to lead the primary health care team and for this to be a key role of the doctor of the future has strong support. The need for role substitution then, for both NPs and other members of the health team, is to align health professionals with service need and to achieve utility of care. These developments must occur as a carefully trialled and evidence-based expansion of the sector.

References

1. Gorman DF, Scott PJ, Poole P. On the future role of the doctor. *Intern Med J* 2007;37(3):145–8.
2. Gorman DF, Brooks PM. On solutions to doctor shortages in Australia and New Zealand. *Medical J Aust* 2009;190:152–6.
3. Hoare KJ, Fairhurst-Winstanley W, Horsburgh M, McCormick R. Nurse employment in primary care—UK and New Zealand. *NZ Fam Physician* 2008;35(1):29–31.
4. Zurn P, Dumont J-C. Health workforce and international migration: can New Zealand compete? WHO DELSA/HEA/WD/HWP (2008)3.
5. Fogel RW. The escape from hunger and premature death. 1700–2100. Cambridge: Cambridge University Press; 2004.
6. Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries quality of care. Data watch, 07 April 2004, W4-184-97.
7. Schofield DJ. Replacing the projected retiring baby boomer nursing cohort 2001–2026. *BMC Health Serv Res* 2007;7:87.
8. Schofield D, Beard J. Baby boomer doctors and nurses: demographic change and transitions to retirement, *Med J Aust* 2005;183(2):80–83.