



The case for a diverse health workforce

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THE UNIVERSITY
OF AUCKLAND

NEW ZEALAND

Te Whare Wānanga o Tāmaki Makaurau

A medical perspective of the health workforce.

28 November 2006

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- ❑ In the context of local health service quality and access, the first issue to consider is the adequacy of the status quo.
- ❑ To paraphrase Jean-Paul Sartre, to do nothing and to “not make a choice” is actually to choose the status quo.



The adequacy of current health services in New Zealand.

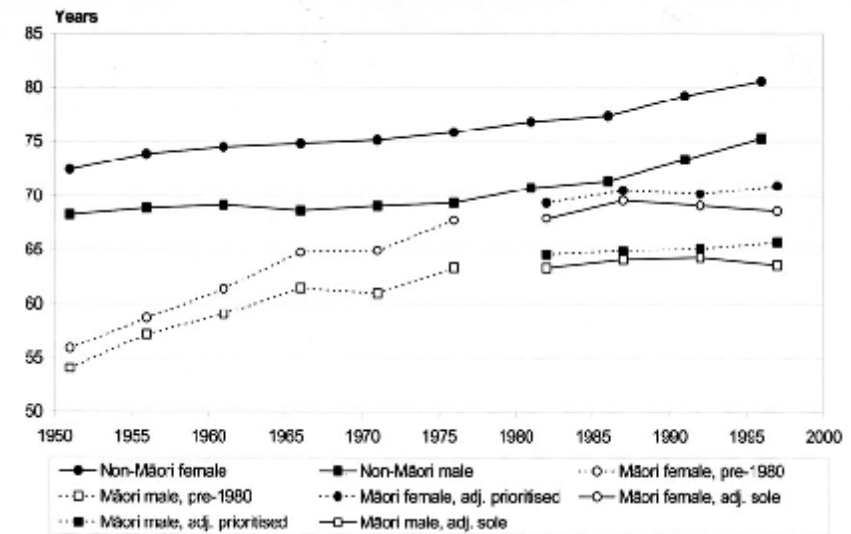
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❑ Do we have equity in health service access and outcome in New Zealand?

Figure 20: Māori and non-Māori life expectancy, by gender, 1950–2000



The adequacy of current health services in New Zealand.

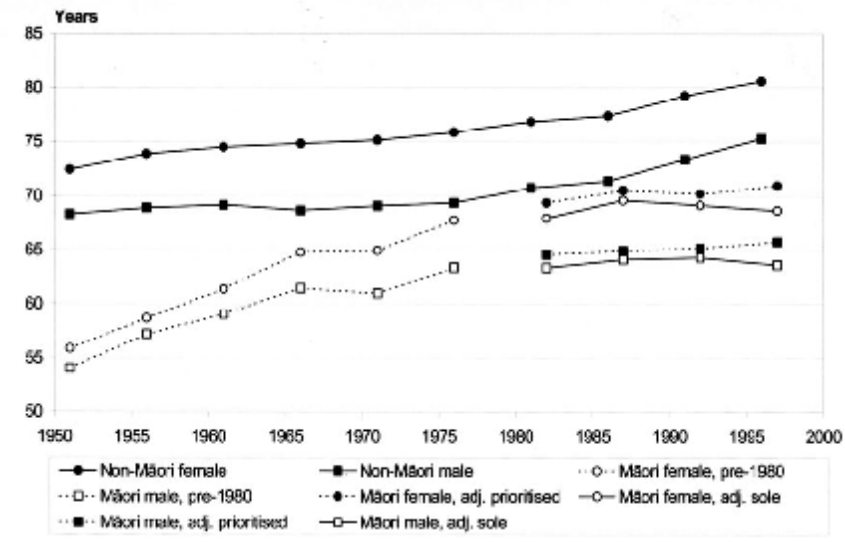
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- ❑ Do we have equity in health service access and outcome in New Zealand?
- ❑ New Zealand is the most reliant country in the OECD on overseas trained doctors.
- ❑ What is the mean age of NZ GP's and what is the mean age and origins of rural GP's?

Figure 20: Māori and non-Māori life expectancy, by gender, 1950–2000



The adequacy of current health services in New Zealand.

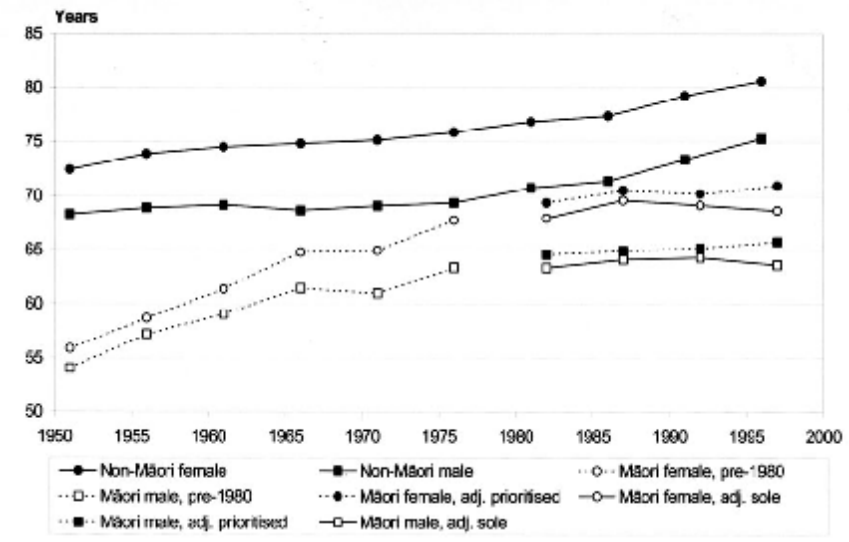
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- ❑ Do we have equity in health service access and outcome in New Zealand?
- ❑ What is likely to happen to international and private versus public recruitment pressures on the health workforce and what effect is this likely to have?

Figure 20: Māori and non-Māori life expectancy, by gender, 1950–2000



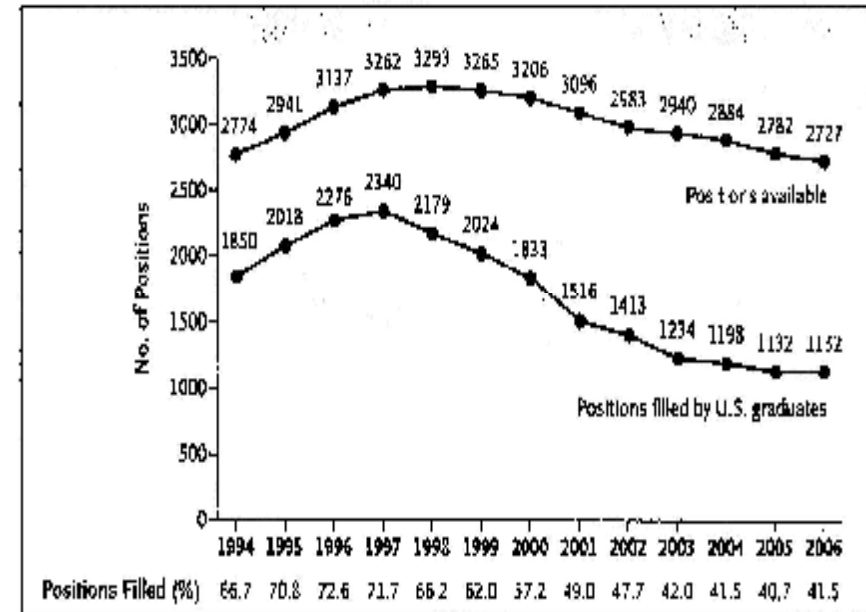
The adequacy of current health services in New Zealand.

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- ❑ The global medical market is not evenly distributed and shows a net movement to high expenditure health systems (i.e. the USA is the mouth of the Nile).
- ❑ Bodenheimer, N Engl J Med 2006; 355 (9): 861-4



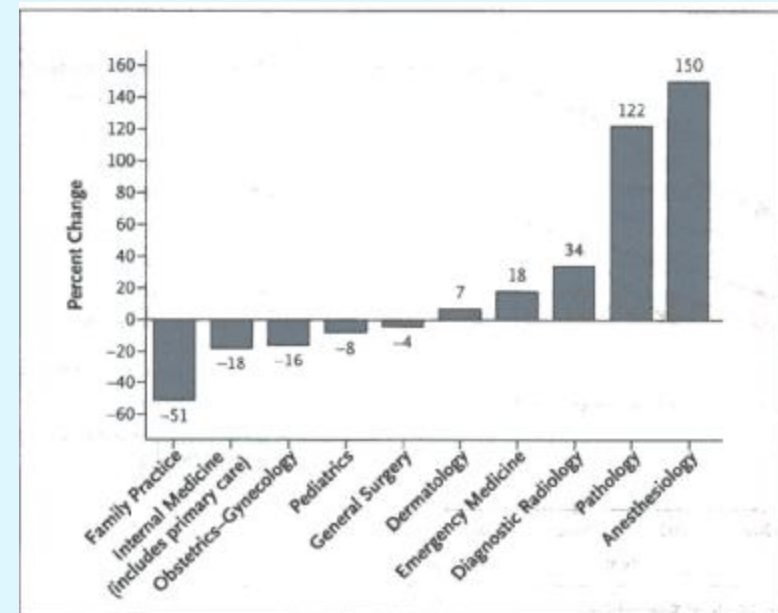
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- ❑ The global medical market is not evenly distributed and shows a net movement to high expenditure health systems (i.e. the USA is the mouth of the Nile).
- ❑ Woo, N Engl J Med 2006; 355 (9): 864-6



Percent Change between 1998 and 2006 in the Percentage of U.S. Medical School Graduates Filling Residency Positions in Various Specialties.
Data are from the National Resident Matching Program.

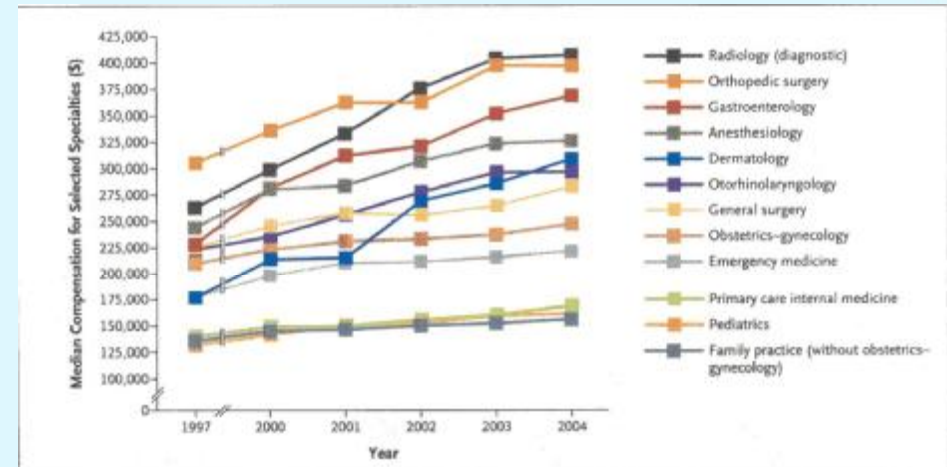
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- ❑ The global medical market is not evenly distributed and shows a net movement to high expenditure health systems (i.e. the USA is the mouth of the Nile).
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Median Compensation for Selected Medical Specialties.

Data are from the Medical Group Management Association Physician Compensation and Production Survey, 1998 and 2005.

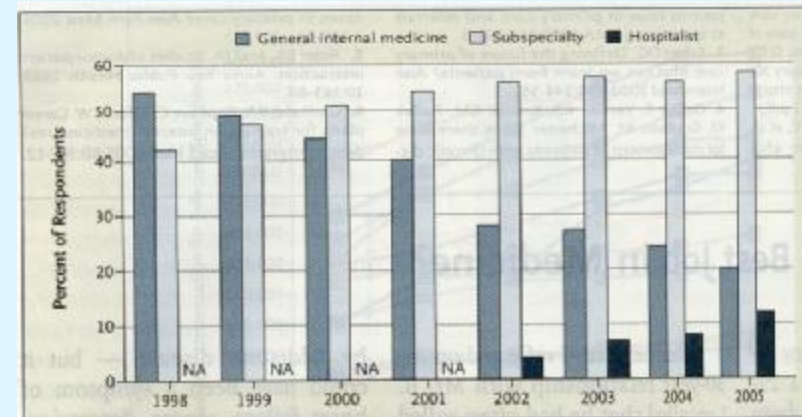
The adequacy of current health services in New Zealand.

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- ❑ Do we have equity in health service access and outcome in New Zealand?
- ❑ What is the current situation in the USA with respect to health expenditure and health service access?
- ❑ Bodenheimer, N Engl J Med 2006; 355 (9): 861-4



Proportions of Third-Year Internal Medical Residents Choosing Careers as Generalists, Subspecialists, and Hospitalists.

For 2001, the data reflect the career plans for all third-year internal medicine residents, including categorical, primary care, medicine-pediatrics, and other tracks. Data for all other years reflect the career plans of third-year residents enrolled in categorical and primary care internal medicine programs. Data for 1998 through 2003 are from Garibaldi et al.⁹ Data for 2004 and 2005 are from Carol Popkave, American College of Physicians. NA denotes not applicable.

The adequacy of current health services in New Zealand.

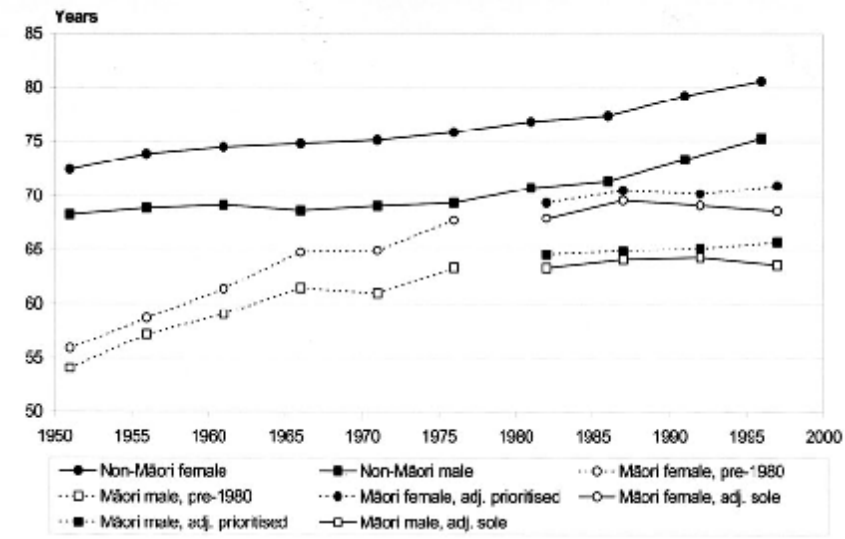
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- Do we have equity in health service access and outcome in New Zealand?
- What are the demographic projections for NZ and what predictable effect will these have on health service needs?

Figure 20: Māori and non-Māori life expectancy, by gender, 1950–2000



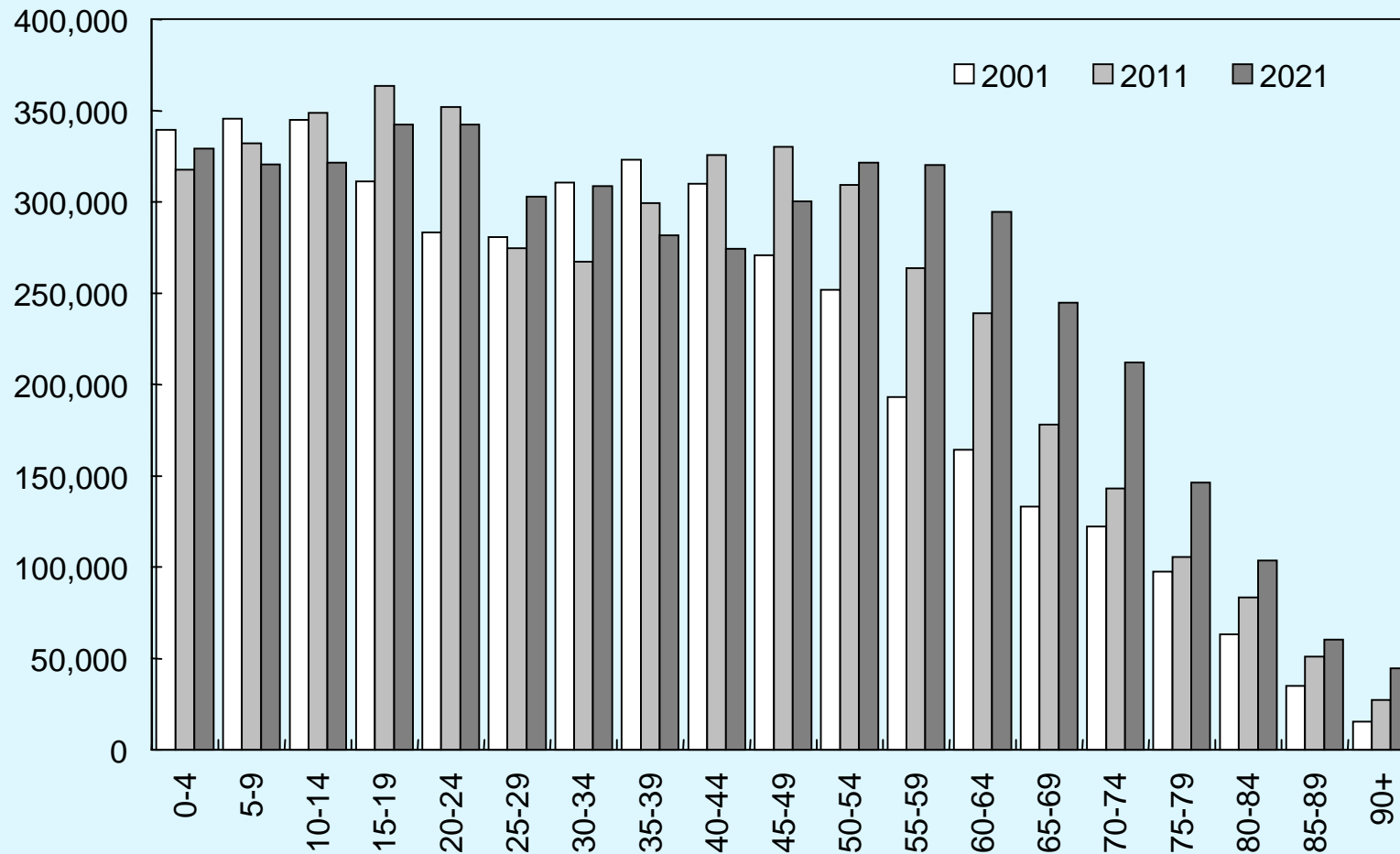
NZIER (2005)

NZ Population Projections by Age Cohort
(Assuming medium population growth).

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Projected demand for health professionals to maintain current health service levels to 2021.

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- ❑ NZIER predictions are based on three scenarios of population age and size, disease incidence and disability progression.
- ❑ Best case scenario = **40%** more registered health professionals needed for 2021.
- ❑ Medium case scenario = **47%** more registered health professionals needed for 2021.
- ❑ Worst case scenario = **69%** more registered health professionals needed for 2021.

Projected demand for health professionals to maintain current health service levels to 2021.

- ❑ NZIER predictions are based on three scenarios of population age and size, disease incidence and disability progression.
- ❑ **Given the time that it takes to train health professionals, when should this additional 40 to 69% have been recruited?**
- ❑ It is reasonable to conclude that directly or indirectly choosing the status quo is not an acceptable response to even current health service needs, let alone those predicted for 2021.

Proposals to establish an effective health workforce.

- ❑ The years of morbidity in later life could be compressed.
- ❑ The elements of the education and health systems could be better aligned with each other and with patient care needs.
- ❑ The percentage of the community employed in health services could be increased and/or greater output could be obtained from the current workforce.
- ❑ Identify and employ disruptive innovations.

Proposals to establish an effective health workforce.

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- ❑ Identify and employ disruptive innovations.
- ❑ To these four categories of solution, a fifth over-arching consideration can be added; the NZ health workforce crisis will probably not be adequately addressed until there is a national non-partisan devised and complete reorganisation of the fiscal basis of the health system, including agreement on the balancing of private and tax payer contributions.

The years of morbidity in later life could be compressed.

- ❑ Factors that will act against any compression of morbidity in later life.
 - ❑ Imminent epidemics of obesity and diabetes.
 - ❑ Immigration from developing nations.
 - ❑ Increasing health expectations and a better informed demanding population.
 - *An issue here is the medicalisation of society and the socialisation of medicine.*
 - ❑ Need for generalist individual health care within a population health approach.

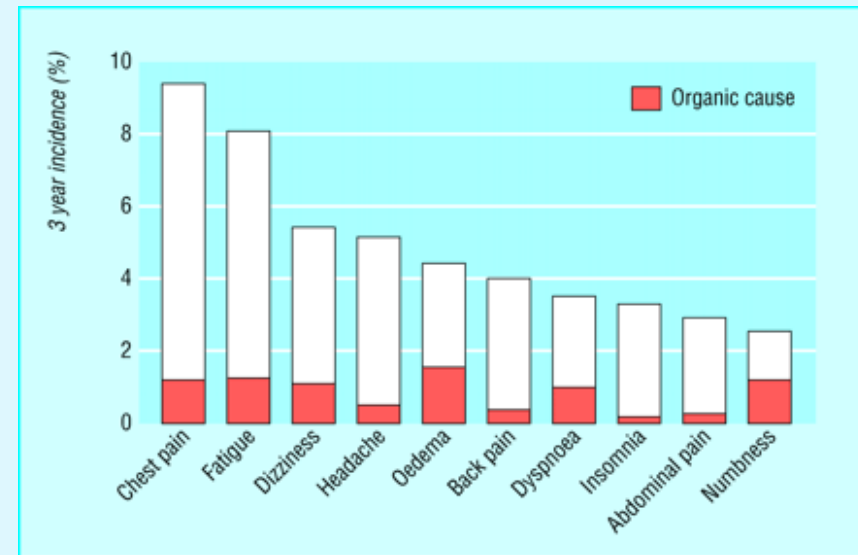
Hypothesis: Society has been extensively medicalised.

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- ❑ Mayou, BMJ 2002, 325: 265-8.
- ❑ It is self-evident that medical education must teach doctors to identify and manage people with “medically unexplainable disease”.



Hypothesis: Medicine has been extensively socialised.

- ❑ The “medicalisation of society” is compounded by the social factors that strongly influence medical practitioner’s decision making and behaviour.
- ❑ The factors that determine GP diagnoses include the following. There is no evidence that any are pre-eminent.
 - ❑ Patient retention.
 - ❑ Patient disposal.
 - ❑ Fear of complaint.
 - ❑ Financial support for the patient.
 - ❑ The nature of the patient’s health problem.

The elements of the ...health systems could be better aligned

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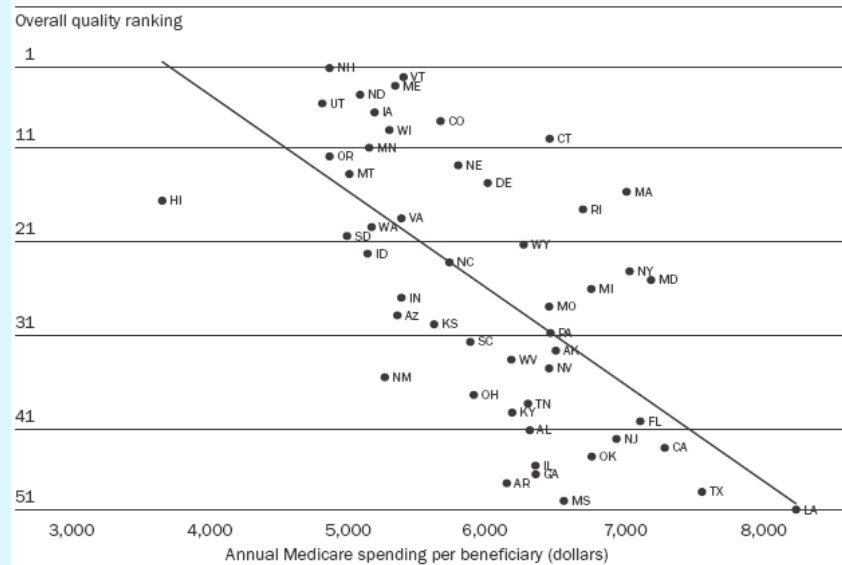
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- ❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004
- ❑ Relationship between State expenditure and quality ranking.

EXHIBIT 1

Relationship Between Quality And Medicare Spending, As Expressed By Overall Quality Ranking, 2000-2001



SOURCES: Medicare claims data; and S.F. Jencks et al., "Change in the Quality of Care Delivered to Medicare Beneficiaries, 1998-1999 to 2000-2001," *Journal of the American Medical Association* 289, no. 3 (2003): 305-312.

NOTE: For quality ranking, smaller values equal higher quality.

The elements of the ...health systems could be better aligned

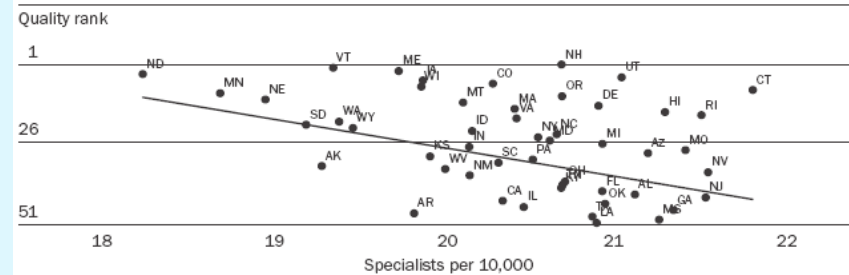
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- ❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004
- ❑ Relationship between number of specialists per capita and quality ranking.

EXHIBIT 6
Relationship Between Provider Workforce And Quality: Specialists Per 10,000 And Quality Rank In 2000



SOURCES: Medicare claims data; and Area Resource File, 2003.
NOTES: For quality ranking, smaller values equal higher quality. Total physicians held constant.

The elements of the ...health systems could be better aligned

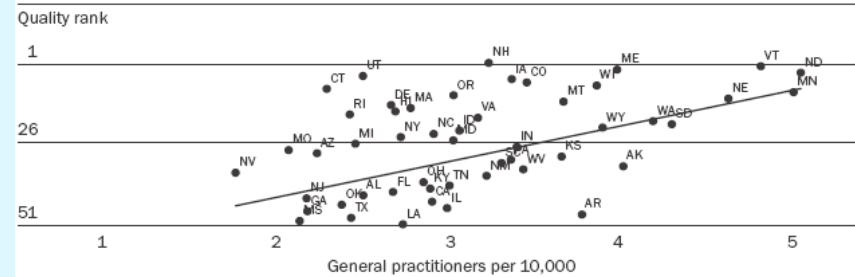
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- ❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004
- ❑ Relationship between number of GP's per capita and quality ranking.

EXHIBIT 8
Relationship Between Provider Workforce And Quality: General Practitioners Per 10,000 And Quality Rank In 2000



The elements of the ...health systems could be better aligned

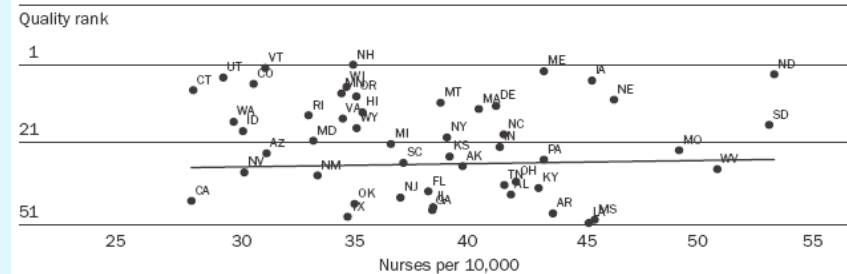
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- ❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004
- ❑ Relationship between number of nurses per capita and quality ranking.

EXHIBIT 10
Relationship Between Provider Workforce And Quality: Nurses Per 10,000 And Quality Rank In 2000



The elements of the ...health systems could be better aligned

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- ❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004
- ❑ Conclusions:

- ❑ In the USA, there are enough members of the health workforce and the expenditure on health is appropriate, but, the workforce is poorly aligned with need and subject to perverse incentives.

The elements of the ...health systems could be better aligned

❑ Baicker K, Chandra A. Medicare spending, the physician workforce, and beneficiaries' quality of care. Health Affairs Data Watch, 07 April 2004

❑ Conclusions:

❑ There is an urgent need for incentives that will help increase the relative number and activity of GP's.

- ❑ Increase the profitability of general medical practice.
- ❑ Increase the status of general medical practice.
- ❑ Increase the enjoyment and range of practice for general medical practitioners.

Hypothesis: Current health force ...inadequate respectively for the health needs of society in 2021.

- ❑ The aircraft analogy.
 - ⊕ Anaesthesia as a model of alternative health provision.
 - ⊕ The Harvard concept of disruptive innovations.
- ❑ The effect of student debt on career choice.
 - ⊕ Australian and New Zealand data.
- ❑ The effect of relative values on career choice.
 - ⊕ Cognitive versus procedural practice.
 - ⊕ **What is the role of the doctor of the future?**

The elements of the ...health systems could be better aligned

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- ❑ Past and present Government initiatives.
- ❑ Urgent need for relative values study.
 - + What was the origin of the procedure bias in remuneration and do these factors still operate?
 - + The effect of student debt in determining career justifies bonded cadet schemes, debt forgiveness for entering priority roles and capping already well subscribed specialities.
- ❑ The duration of both undergraduate and postgraduate training must be reduced.
- ❑ Limits need to 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.

The percentage ... employed ... could be increased and/or greater output could be obtained ...

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- ❑ The effect of every doctor in New Zealand working an extra hour per week = 500 additional doctors.
 - Is the increase in work hours per doctor over the last 20 years likely to continue?
- ❑ Increasing recruitment into medical schools for many people will also be hindered by:
 - inevitable debt; and
 - decreasing relative and soon perhaps actual numbers of younger people.
- ❑ What is the likely impact of increasing feminisation and unionisation of the workforce, the greater attention being paid to “healthier” work-life balances and the concern about the safety of practice by overworked tired doctors?
- ❑ Other negative factors will include ongoing and increasing international and private (versus public) recruitment pressures and by highly profitable but low utility disciplines such as appearance medicine.

Proposed solutions to the health workforce crisis.

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- ❑ The years of morbidity in later life could be compressed.
- ❑ The elements of the education and health systems could be better aligned with each other and with patient care needs.
- ❑ The percentage of the community employed in health services could be increased and/or greater output could be obtained from the current workforce.
- ❑ Identify and employ disruptive innovations.
- ❑ The overwhelming conclusion is that to be appropriately effective in 2021 that the health workforce will need to be differently configured and/or work differently.

Identify and employ disruptive innovations.

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❑ Innovative programs underway here and elsewhere.

- ❑ UK Foundation Degrees.
- ❑ UK geriatric health workers.
- ❑ USA employment of nurse practitioners, endoscopists and anaesthetists.
- ❑ In New Zealand, the concept of a Physician Assistant is being considered as a method of reducing the need for RMOs and to enhance the continuity of patient care.

❑ Nurse practitioners.

- ❑ 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. While it might seem easier to initially prove the concept with a group that already has legitimacy in the health care system, this will reinforce the assumed necessity of the traditional doctor-nurse paradigm.
- ❑ **What is a sensible role for the nurse practitioner of the future?**

Identify and employ disruptive innovations.

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- ❑ Need to trial integrated care, electronic patient information and monitoring systems, telemedicine.
- ❑ Need to field-trial employment of new grades of health care workers such as non-physician endoscopists, technician anaesthetists and Iwi-based community health providers.
 - ❑ 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 (e.g. Fred Hollow's eye "surgeons" and Dr George Salmond).



A medical perspective of the health workforce.

- ❑ Education of doctors, and health professionals generally, can be subject to reactionary and to creative developments. Clearly, the latter is preferable. Hopefully, there is still time for reasoned, sensible and sustainable reform. The problems presented here need attention soon given the lead time to alter medical and other health-related education programs and the even longer time to alter the nature of the health provider community.

Key internal references.

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New Zealand

The University of Auckland

- Gorman DF, Scott PJ. The social distortion of medical practice. *Medicine Today* 2003; 4 (11): 75-7
- Gorman DF, Scott PJ. Twin dilemma for medical education. *Journal of Internal Medicine* 2005; 35 (3): 141-2
- Gorman DF, Scott PJ, Poole P. Dilemma for medical education re-visited. *Journal of Internal Medicine* 2005; 35: 507-9
- Gorman DF, Scott PJ. Is a concentration on generalist medical practitioners the solution to the New Zealand Health Workforce Crisis? *New Zealand Family Physician* 2005; 32 (6): 368-71
- Gorman DF, Scott PJ. Time for an educational change in time. *Journal of Internal Medicine* 2006; 36 (11): 687-9
- Gorman DF, Scott PJ. On the future role of the doctor. *Journal of Internal Medicine* 2006; *in press*

Key external references.

28 November 2006

New Zealand

The University of Auckland

- ❑ Illich I. Limits to Medicine: The Expropriation of Health. Penguin, Harmondsworth 1977
- ❑ Mayou R. Functional somatic symptoms and syndromes. BMJ 2002, 325: 265-8
- ❑ Lifton RJ. The Nazi Doctors: Medical Killings and the Psychology of Genocide. Basic Books, New York 1986
- ❑ Porter, R. The greatest benefit to mankind: A medical history of humanity from antiquity to the present. Harper Collins, London 1997