

Do We Need a New Health Professional

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Challenges in the next 20 years

- Demographic changes - Life expectancy¹
 - 1901 – 55 ♂ and 59 ♀ (Australian data)
 - 2000 – 77 ♂ and 82 ♀
 - 2020 – 83 ♂ and 89 ♀
- Burden of disease (DALY)²
 - Mortality – Vascular disease, cancer
 - Chronic diseases – mental illness, dementia, asthma and COPD, arthritis, diabetes

1. Intergenerational Report, Australian Govt, 2002

2. Mathers et al. The Australian Burden of Disease Study. Med J Aust 2001;72:592-6

An Example - Rheumatology

- Arthritis in Australia³
 - Affects 3.1 million, 11% of employed workforce
 - Costs \$9.1 billion (2000)
 - 8.5 million GP and 2.2 million specialist visits
 - Similar costs to cancer and same as vascular disease⁴
- Osteoporosis in Australia⁵
 - Affects 2.1 million → 3 million by 2021
 - \$1.2 billion – 68% direct hospital costs
 - 25,000 DALYs

3. Access Economics. The prevalence, cost and disease burden of arthritis in Australia, 2001

4. Hootman JM et al. Magnitude and characteristics of arthritis on ambulatory visits. *Arth. Rheum.* 2002;47:571

5. Access Economics. Burden of brittle bones: costing osteoporosis in Australia. 2001

Can The Health System Cope?

- The Medical & Nursing Workforce
 - Annual Reports, Australian Medical Workforce Advisory Committee and Australian Health Workforce Advisory Committee, 2004
 - Schofield DJ, Beard JR. Baby boomer doctors and nurses: demographic changes and transition to retirement. *Med.J.Aust.* 2005;183:80-83

An Ageing Medical Workforce

Figure 3: Medical practitioners, employed practitioners per 100,000 population, 1994-2002

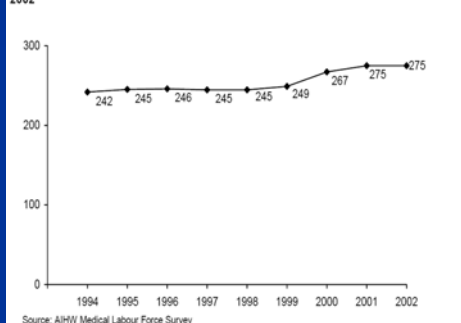
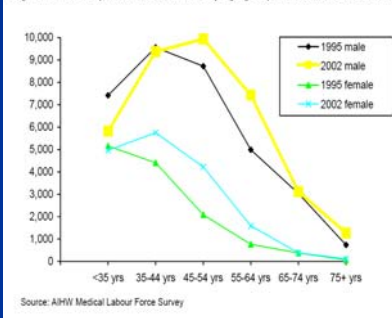


Figure 7: Medical practitioners, number by age group and sex, 1995 and 2002



Doctors Work Less Hours

Figure 8: Medical practitioners, average hours worked, by age group, 1995 and 2002

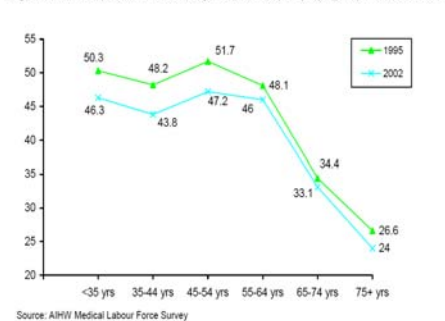
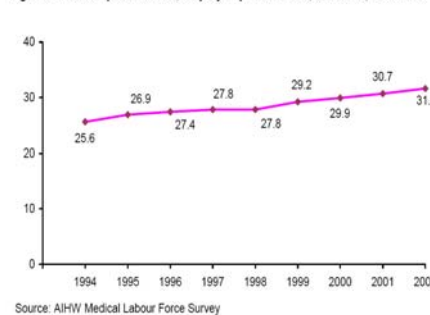
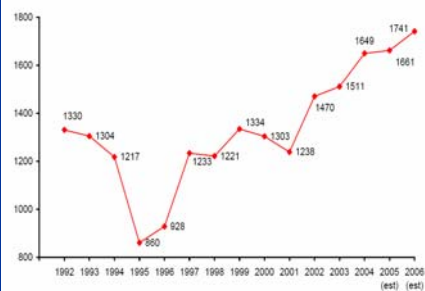


Figure 6: Medical practitioners, employed practitioners, % female, 1994-2002



Medical Student Intakes

Figure 11: Medical students, commencements, Australian citizens and permanent residents, 1992-2006



Source: AIHW, DEST, Australian Medical Schools

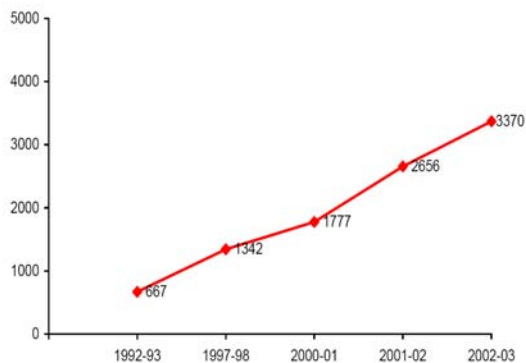
Figure 12: Medical students, completions, Australian citizens and permanent residents, 1992-2003



Source: AIHW, DEST, Australian Medical Schools

Hiding the Doctor Shortage

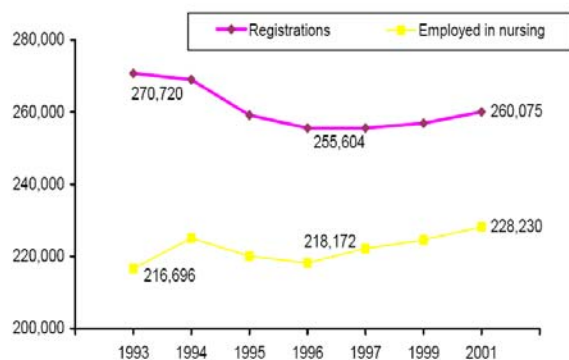
Figure 19: Temporary resident doctors, arrivals, area of need and occupational trainees, 1992-93 to 2002-03



Source: AMWAC and DIMIA

Nursing Workforce Shortage

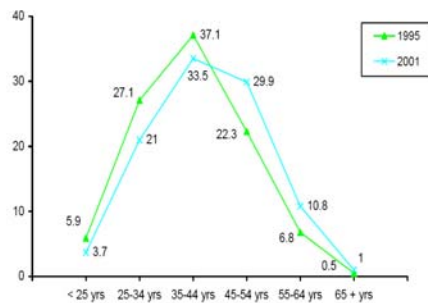
Figure 2: Nurses, registrations and employed in nursing, 1993-2001



Source: AIHW, Nursing Labour Force Survey

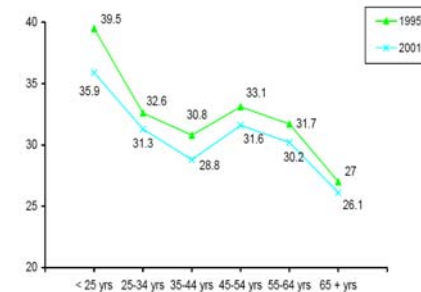
Ageing Nurses, Working Less

Figure 5: Nurses, age distribution (%), 1995 and 2001



Source: AIHW Nursing Labour Force Survey

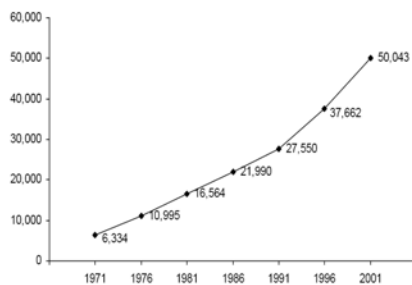
Figure 6: Nurses, average hours worked, by age group, 1995 and 2001



Source: AIHW Nursing Labour Force Survey

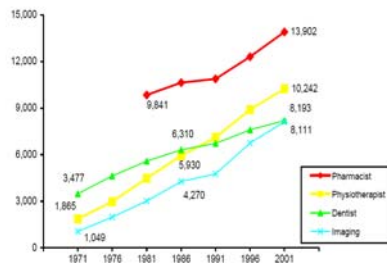
Other Health Professionals

Figure 9: Allied health, employed practitioners, 1971-2001



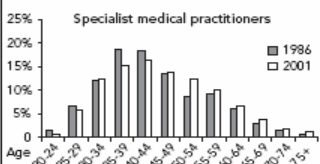
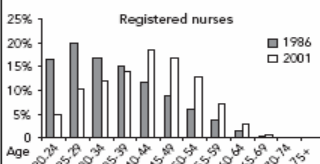
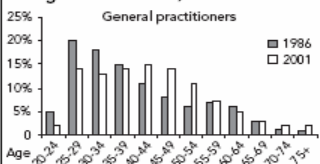
Source: ABS Census

Figure 10: Pharmacists, dentists, physiotherapists and medical imaging workers, employed practitioners, 1971-2001



Source: ABS Census

2 Age distributions, 1986-2001

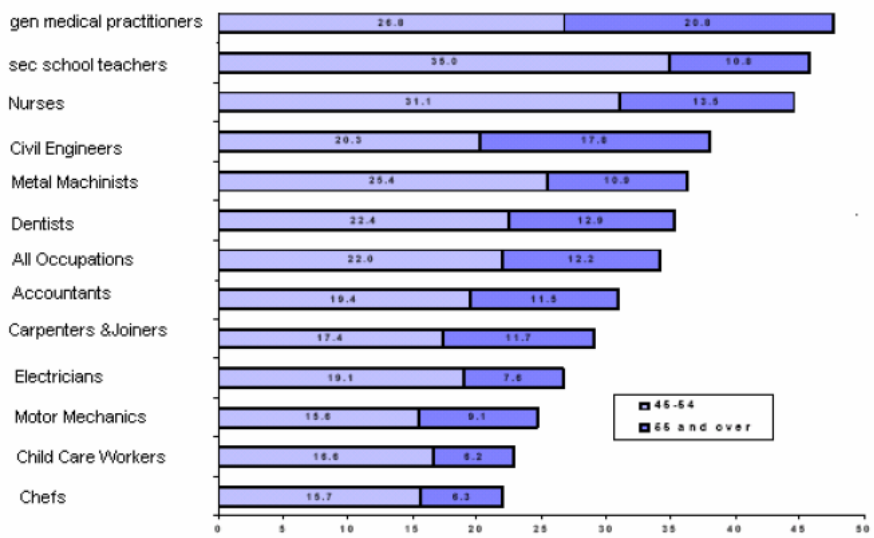


Source: Health workforce supertable extract from ABS Census 1986, 1991, 1996 and 2001, authors' calculations.

- Ageing “baby boomer” clinicians⁶
- Proportion of clinicians >40 years from 1986-01
 - 42 → 58% for GPs
 - 30 → 60% for nurses

6. Schofield & Beard – MJA, 2005

Table 2 Average % over 45 years, over 65 years by occupation, 2003



Source: ABS Labour Force Survey (average for 2003)

Predictions for 2020

- Increasing burden of chronic illness
- Need for ambulatory specialist and primary care
- Inevitable, unavoidable and severe medical and nursing workforce shortages
- Recent increased intakes will be too late to help
- Current training of health professionals is slow to adapt to changing health care needs

New Models of Care

- Specialist – GP shared care models
- Nurse practitioners
- Physician assistants (US)
Hutchinson L et al. *BMJ* 2001;323:1244
- Medical care practitioners (UK)
Paniagua & Stewart. *Br.J.Nursing* 2005;14:405
- Ambulatory practice nurses
HIC – Practice Nurse/Allied Health Worker initiative. 2004

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Physician Assistants

- Typical tasks
 - Patient histories
 - Physical examination
 - Clinical diagnosis
 - Ordering & interpreting laboratory tests
 - Suturing, surgical assistance
 - Patient education
 - Research, administration
 - Do not prescribe
- Education
 - 2-year PG degree
 - Medical model
 - Dependent practitioner
- Workforce
 - 45,000 in US (vs 2.7 mill nurses, 196,000 nurse practitioners, 778,000 physicians)
- Certification
 - National exam, re-certification every 6 years, 100 hours CPD/2 years - AAPA

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Ambulatory Practice Nurses

- Rheumatoid Arthritis Care
 - Multi-disciplinary care achieves better patient outcomes than single practitioner care.⁷
 - Ambulatory clinical nurse specialist (CNS) coordinated care achieves equivalent patient outcomes as specialist coordinated care.
 - CNS coordinated care costs less.⁸
- Primary care – Practice Incentive Program

7. Vliet Vlieland T. Multidisciplinary team care and outcomes in rheumatoid arthritis. *Curr Opin Rheum*. 2004;16:153

8. Van den Hout WB et al. Cost-effectiveness and cost utility analysis of multidisciplinary care in patients with rheumatoid arthritis – comparison of clinical nurse specialist, inpatient and day patient. *Ann Rheum Dis*. 2003;62:308

A Health Practice Professional

- Creation of a new health career pathway – Health Practice Professional (HPP), separate from medical and nursing programs.
- Relatively short training period
 - BSc(Health Practice) - 4 years, UG entry
 - MSc(Health Practice) – 1-2 years, nursing, allied health, paramedic, other BSc(Health) entry.
- Large cohort of potential students interested in health practice who don't/can't enter medicine, nursing or other health practice.

A Health Practice Professional

- Enablers
 - Commitment from Medicine and Health Science Faculties in major universities.
 - Commitment from Governments.
 - <http://www.hwac.govt.nz/publications/fitforpurpose.htm>
 - <http://www.pc.gov.au/study/healthworkforce/issuespaper/index.html>
 - Professional accreditation body – for the education programs and for registration and CPD of practitioners.
- Timing – urgent.

Thankyou

