



THINKING
BIG

Australia 2020 Summit

Long-term Health Strategy

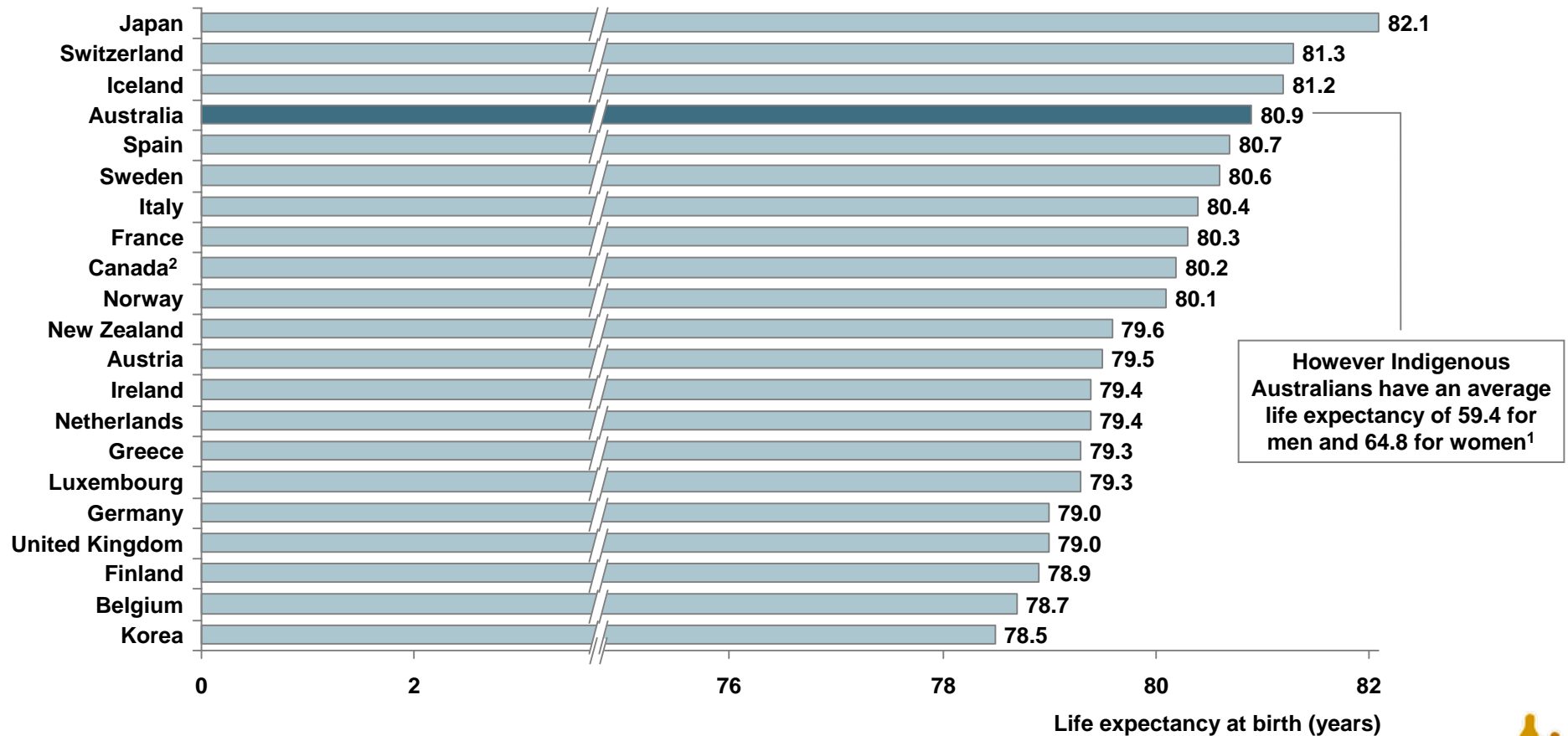
April 2008

These background materials aim to tell an evidence-based story about how Australia is faring. They are not intended to be definitive or comprehensive, but were put together to stimulate discussion on the main challenges and opportunities facing the country and the choices to be made in addressing them. They do not represent government policy.

The materials end with a set of questions. We hope that these, along with many other questions, will be the subject of conversation both prior to and during the Summit.

Australians enjoy one of the longest life expectancies in the world

Life expectancy at birth in top 20 OECD countries: 2005



1. 2001 data 2. 2004 data

Note: Ireland, Italy and Luxembourg excluded from 2004 OECD life expectancy data

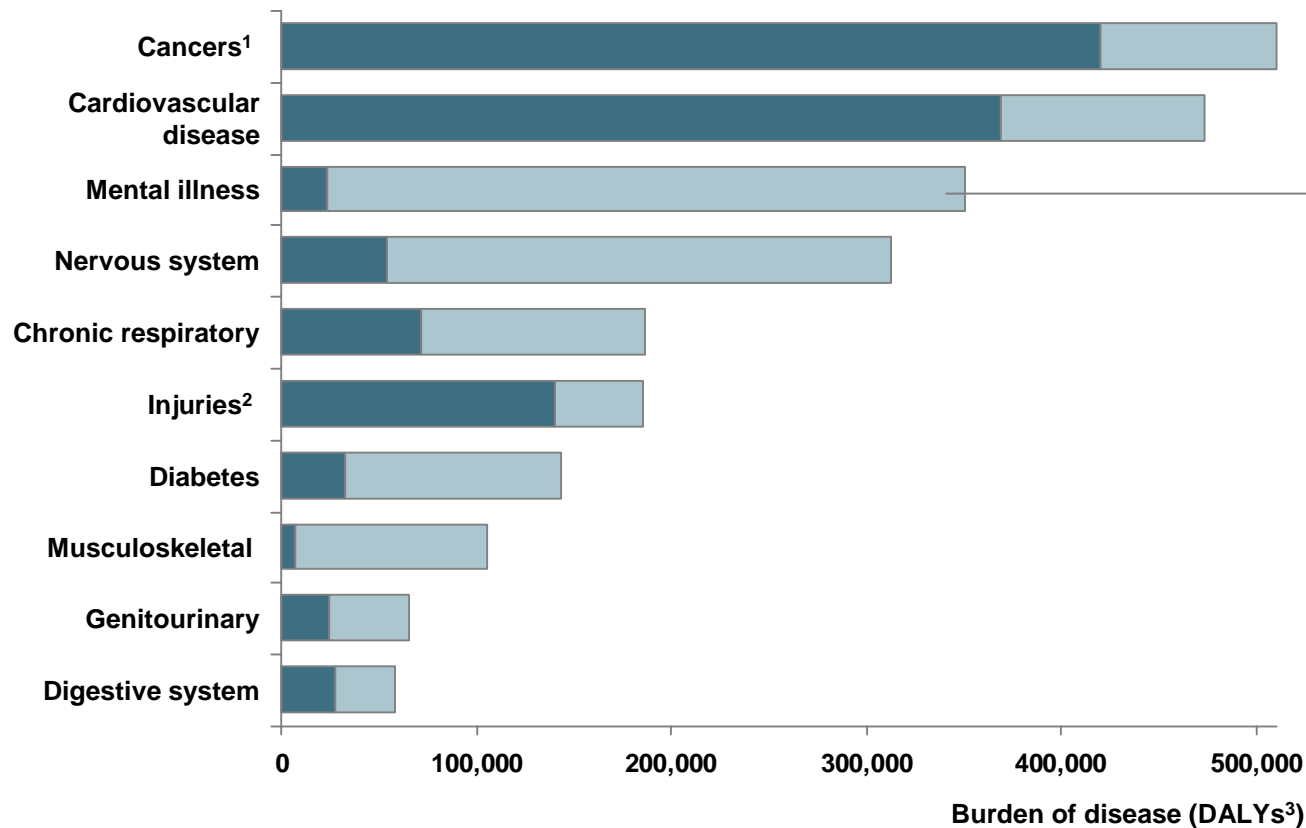
Source: OECD, *Health Data 2005*; Productivity Commission, *Overcoming Indigenous Disadvantage* (2007) "Strategic Areas For Action"

For more on Indigenous health and disadvantage, see *The Future of Indigenous Australia*



However we live with a significant burden of ill-health

Annual national burden of disease for top 10 disease groups in Australia: 2003



Mental illness is a significant issue

- In 2004-5, 11% of persons self-reported a current long-term mental health or behavioural problem. This is a reported increase of 5.9% since 2001⁴
- A 1997 survey into the mental health and wellbeing of Australian adults found that 18% of all people suffered some degree of mental disorder in the previous 12 months
- Of persons with a mental-health related disability, 45% report severe core-activity limitations, 29% moderate limitations, and 59% work or schooling restrictions

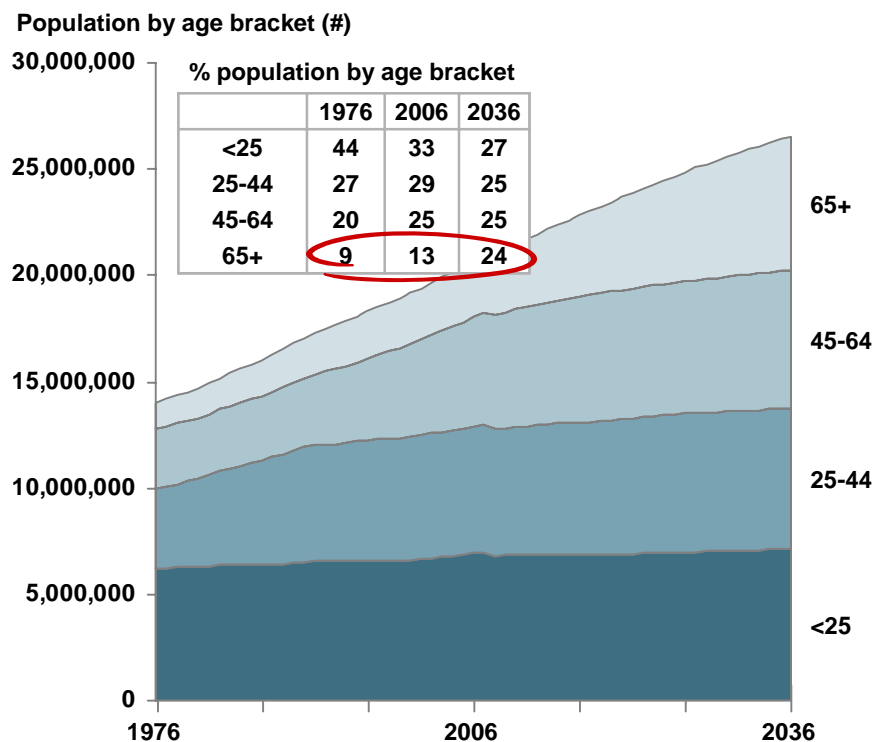
■ Years of life lost (YLL)
 ■ Years lost to disability (YLD)

1. Includes malignant and other neoplasms 2. Includes intentional and unintentional injuries 3. Disease Adjusted Life Years (years lost through death by disease, and years lost to disability by disease) 4. Mental health data is complex. Increased self-reporting rates may be due to greater willingness to report, rather than increased prevalence
 Source: AIHW, *The Burden of Disease and Injury in Australia 2003* (2007); ABS 4824.0.55.001, *Mental Health in Australia: A Snapshot 2004-5* (2006)

Our ageing population will significantly increase future demand for health care

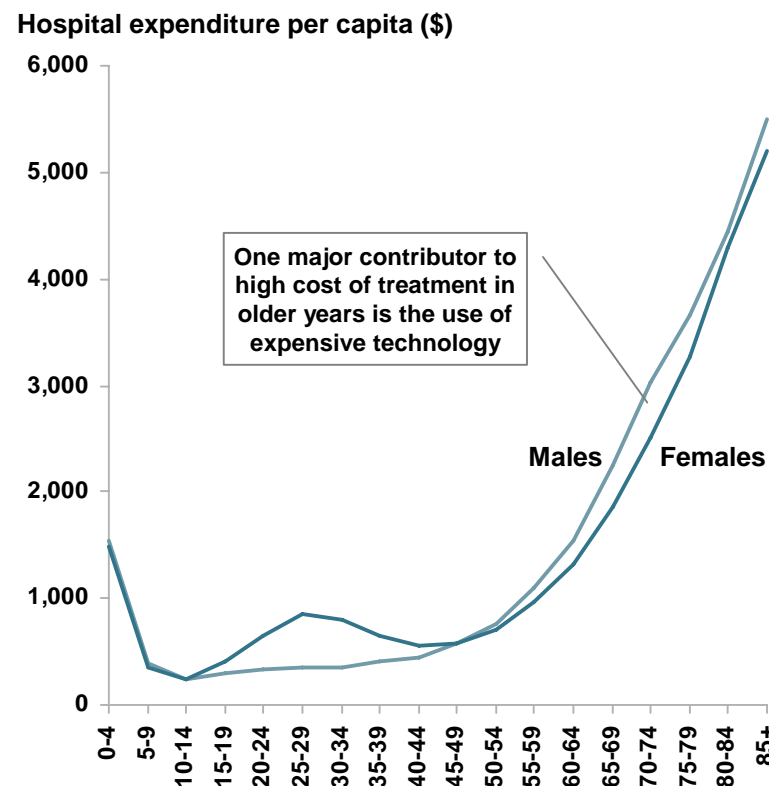
By 2036, it is projected that one quarter of Australians will be over 65

Australian population by age bracket: 1976-2036



Acute care expenditure rises sharply from 60 onwards

Hospital expenditure per capita by age group: 2002/3



Note: Population projections based on Series B growth assumptions

Source: ABS 3222.0, *Population Projections, Australia, 2004-2101* (2006); ABS 3201.0, *Population by Age and Sex, Australian States and Territories* (2006); Productivity Commission, *Economic Implications of an Ageing Australia* (2005)

Communicable diseases have given way to lifestyle-related chronic illness

In the past...

Last century the largest causes of mortality were

- Infectious disease
- Parasitic disease
- Respiratory disease
- Circulatory disease
- Cancers

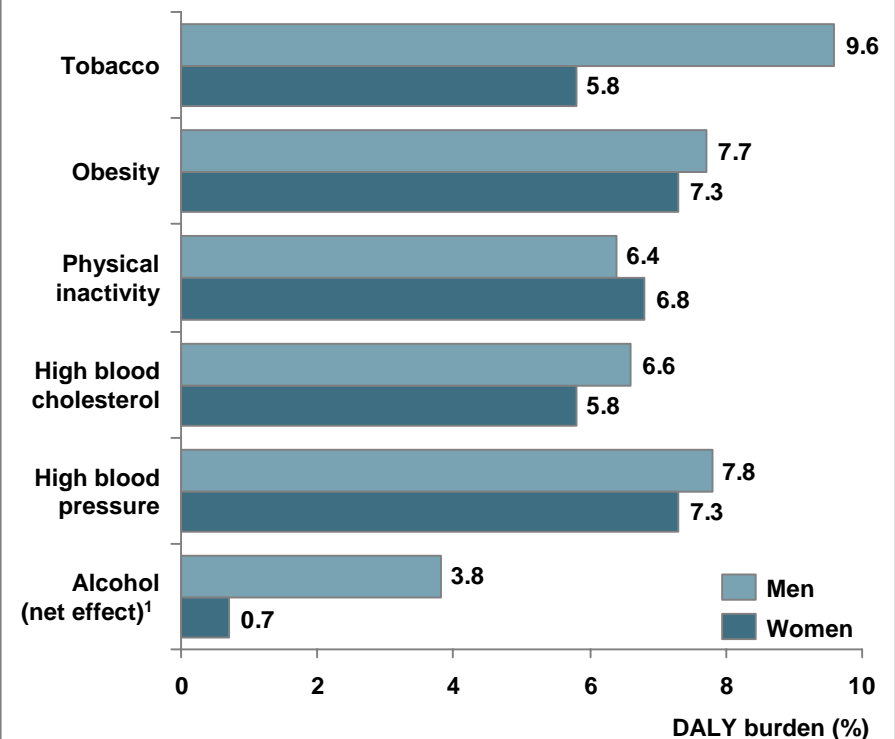


...Now and in the future

Now in Australia, ~80% of all deaths are attributable to six disease groups

- Cancers
- Cardiovascular problems
- Injuries
- Mental Illness
- Diabetes
- Chronic Respiratory Disease

Ill-health burden attributable to selected risk factors: 2003

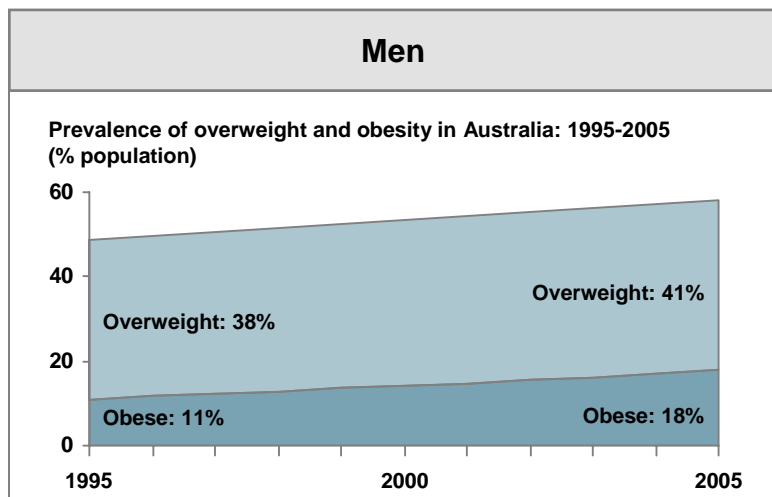
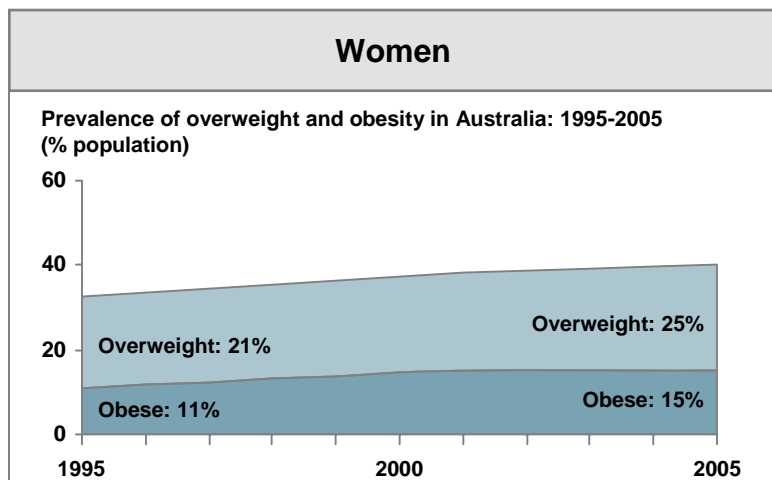


Climate change may be one counter-contributor to this trend, through increased vector-borne diseases

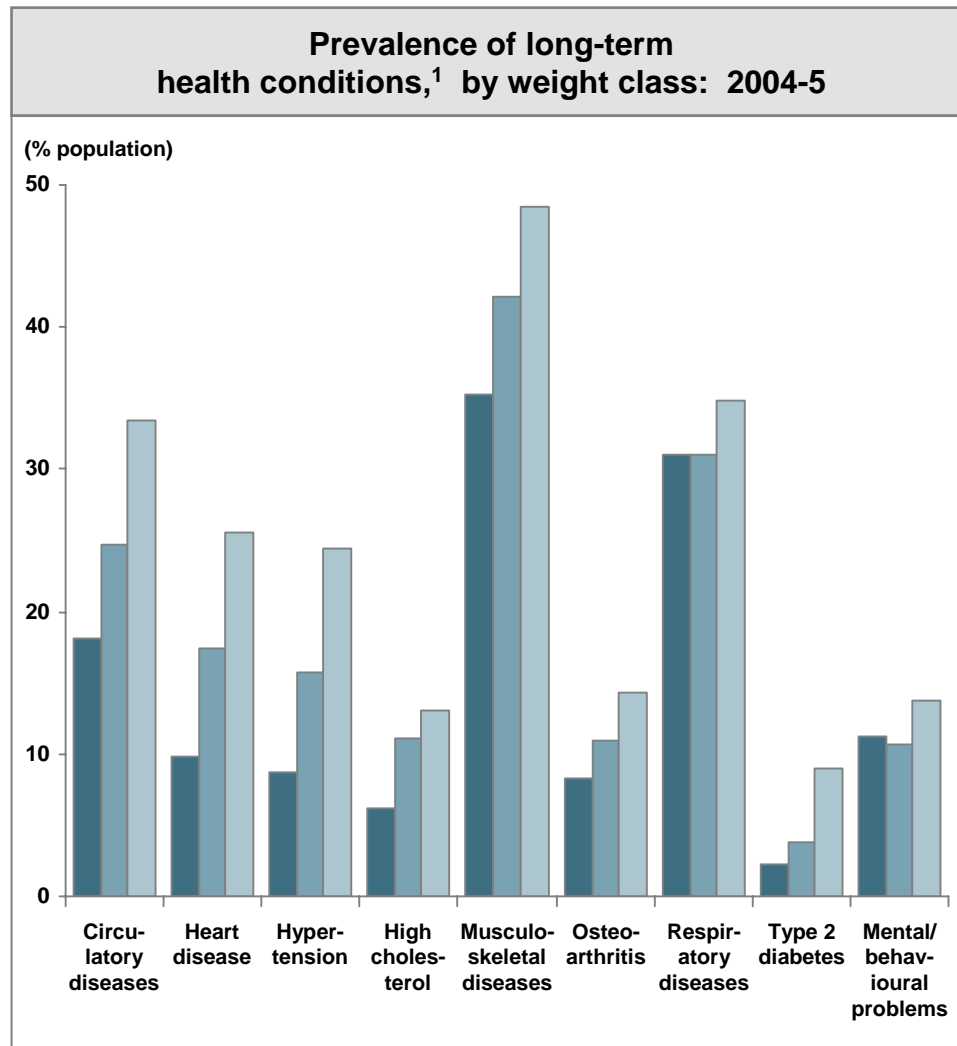
1. Net effect of alcohol, both harmful and beneficial 2. Disease Adjusted Life Years (years lost through death by disease, and years lost to disability by disease). Note that the burden of disease attributed to risk factors does not account for any burden of disease incurred in unborn children, attributable to the lifestyle risk-factors of their mother. For more on this issue (the 'Barker Hypothesis') see *Fetal and infant origins of adult disease* (Barker, 1992) and *The fetal origins of adult disease* (Robinson, 2001)

Source: AIHW, *Burden of Disease and Injury in Australia 2003* (2006)

For example, growing rates of obesity are likely to be accompanied by higher prevalence of chronic diseases



- Healthy weight
- Overweight
- Obese



1. Defined as all conditions with actual or expected duration of 6 months or more (may include, for example, short or long-sightedness)
 Source: ABS 4364.0, *National Health Survey: Summary of Results 2004-5* (2006); ABS 4719.0, *Overweight and obesity in Adults, Australia, 2004-5* (2008)

The AIHW identifies a range of behavioural risk factors for chronic disease – our performance in these is mixed

Selected risks to health in Australia

Lifestyle behaviours

1. Tobacco
2. Alcohol
3. Physical inactivity
4. Illicit drugs
5. Low fruit & vegetable consumption
6. Unsafe sex

Physiological states

7. High body mass
8. High blood pressure
9. High blood cholesterol
10. Osteoporosis

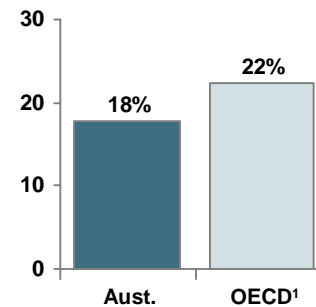
Social and environmental factors

11. Urban air pollution
12. Intimate partner violence
13. Child sexual abuse
14. Occupational exposures & hazards

Selected behavioural risk factors

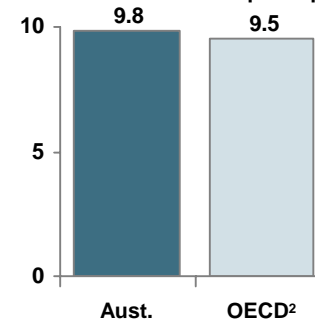
Tobacco

% population daily smokers, 2004



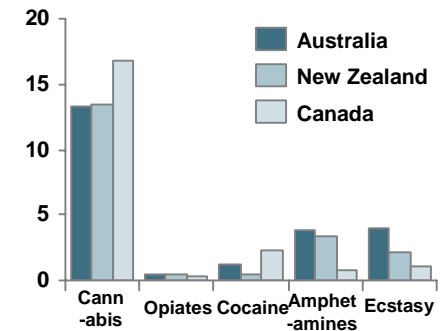
Alcohol

Ltr alcohol consumed per capita, 2005³



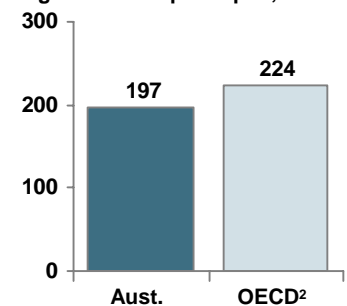
Illicit drugs

% population aged 15-64 using drugs in last 12 months⁴



Fruit & vegetable consumption

kg consumed per capita, 2003



For more on the community consequences of alcohol and drug use, see *Strengthening Communities...* (p18)

1. Avg of 10 countries with similar socio-economic structure, health systems and standards of living 2. Avg of 30 OECD countries 3. Per person 15 years and over. Australian data is 2004; OECD avg is 2005 4. Australian and Canadian data is 2004. NZ data is 2001
Source: OECD, *Health at a Glance 2007* (2007); ABS, 4835.0.55.001 *Physical Activity in Australia: A Snapshot, 2004-5* (2006); UNODC, *World Drug Report 2007* (2007)

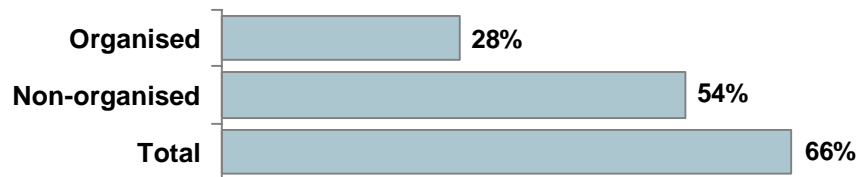


Sport has not only health benefits, but an intrinsic worth to our country's social and economic wellbeing

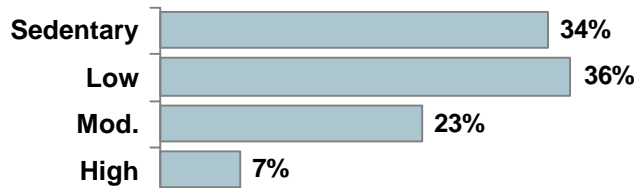
Health dimension

- Physical inactivity increases all causes of mortality, doubles the risk of cardiovascular disease, type 2 diabetes, and obesity. It also increases the risks of colon and breast cancer, high blood pressure, lipid disorders, osteoporosis, depression and anxiety
- Physical inactivity was the fourth leading cause of burden of disease in Australia in 2003 (~7% of total burden)
- Australians are avid sports participants and viewers, but many people still lead inactive lifestyles

% Population participating in sport, 2005-6



% Population by self-reported activity level, 2004-5



Social and economic dimensions

Sport is a growing economic force

- 2006 census data indicates that 1.0% of employed persons have their main job in sports – which is a 21.6% increase since the previous census (compared with 8.7% growth across other occupations)
- In 2004-5, the 9,356 sporting businesses and organisations generated \$8.8b in revenue¹ – 11.7% growth since 2000-1

Sport is an important part of society

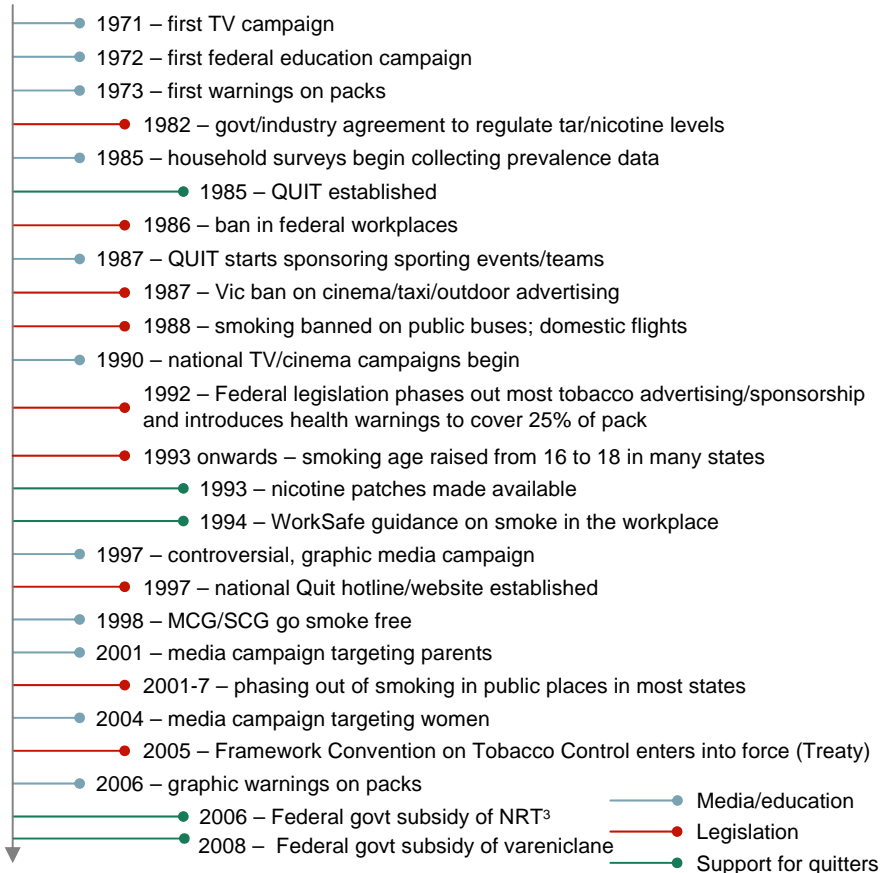
- The 2006 General Social Survey indicates that sport is the number one source of volunteer work (11.4% of population)
- Research indicates a range of social and personal benefits from participation in sports² –
 - Skill acquisition; improved self-esteem; expanded social networks; community trust

1. Includes government funding 2. See a summary of this research, in *Social impacts of participation in the Arts and Cultural Activity (2004)*
Source: ABS, 4177.0 *Participation in Sports and Physical Recreation Australia (2007)*; ABS, 4835.0.55.001 *Physical Activity in Australia: A Snapshot, 2004-5 (2006)*

Public health campaigns can help change community perceptions and behaviours

Australian governments have been driving anti-smoking measures

Time line of Australian governments' anti-smoking activity: 1970-2006



Australia now has one of the lowest smoking rates in the world, and it continues to decline

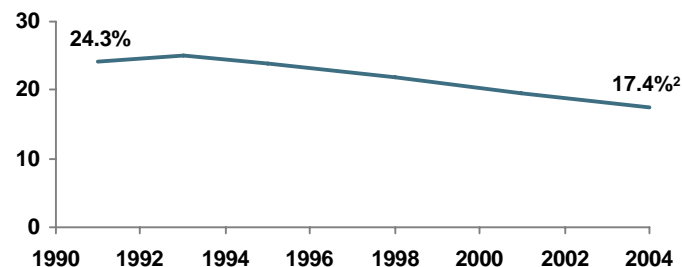
% population who smoke daily of 10 lowest and selected OECD countries: 2003-5¹

	<u>Women</u>	<u>Men</u>	<u>Persons</u>
1. Sweden	17.5	15.0	16.2
2. Portugal	9.0	26.0	17.0
3. United States	15.1	19.0	17.0
4. Canada	15.5	19.1	17.3
5. Australia	16.5	18.9	17.7 ²
6. Iceland	18.9	21.5	20.2
7. New Zealand	21.0	23.0	22.0
8. Italy	16.4	28.7	22.3
9. Finland	19.5	27.1	23.0
10. France	19.0	28.0	23.0
...			
14. UK	23.0	26.0	25.0
...			
21. Japan	13.2	46.9	29.4

Smoking remains a major problem for:

- Indigenous populations (~50%)
- Women aged 14-19 (12% compared to 9.5% of men at the same age)

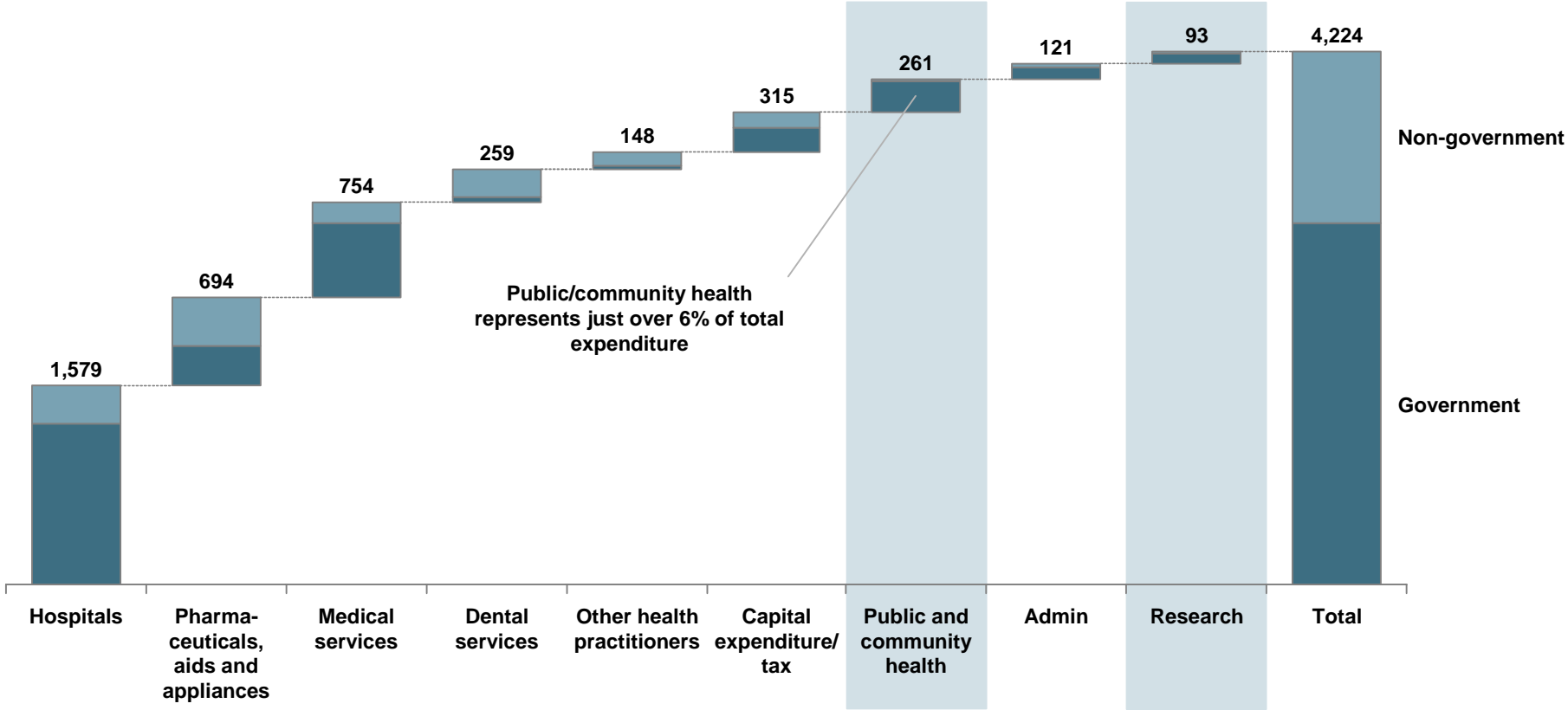
% population who smoke daily - Australia: 1991-2004



1. 2004 data taken where available, followed by 2005 or 2003 data where necessary 2. Note that figures are obtained from different data sources (NSDHS and OECD) and therefore do not match exactly 3. Nicotine Replacement Therapy
Source: OECD, *Health Data 2007*; AIHW, *National Drug Strategy Household Survey: First Results (2005)*

Current health funding remains overwhelmingly focused on treatment

National health expenditure, by area of expenditure – Australia: 2005/6 (\$ per capita)

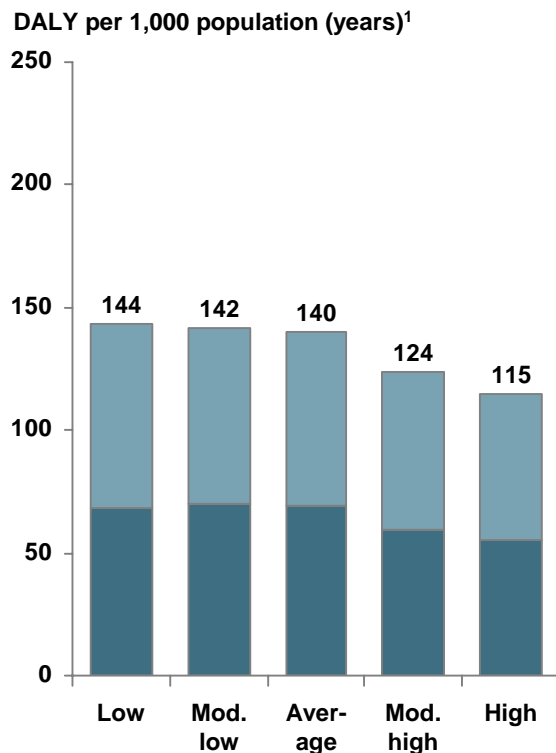


1. Includes Commonwealth, State and local governments 2. Includes private health insurance funds, injury compensation insurers, and private individuals 3. Includes public and private hospitals and patient transportation
 Source: AIHW, *National health expenditure 2005-6* (AIHW data cube)

Health outcomes are significantly worse for low socio-economic groups, rural and indigenous communities

Low socio-economic groups

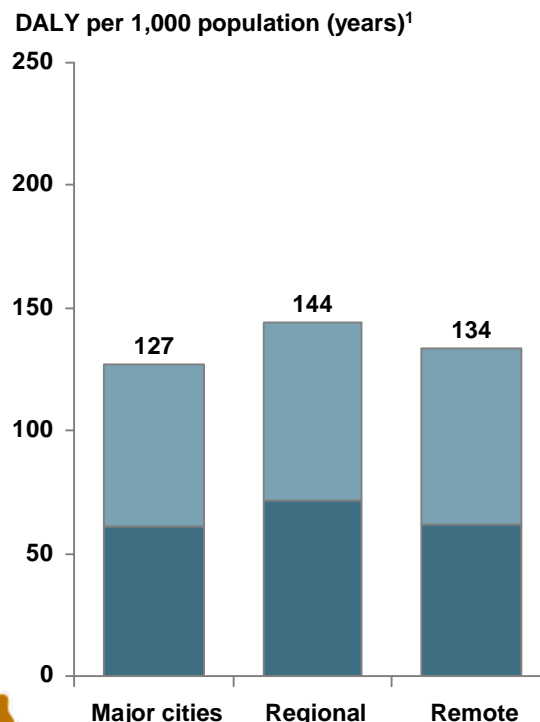
Burden of disease, by SES quintile – Australia: 2003



■ Years lost to disability (YLD)
■ Years of life lost (YLL)

Rural and regional Australians

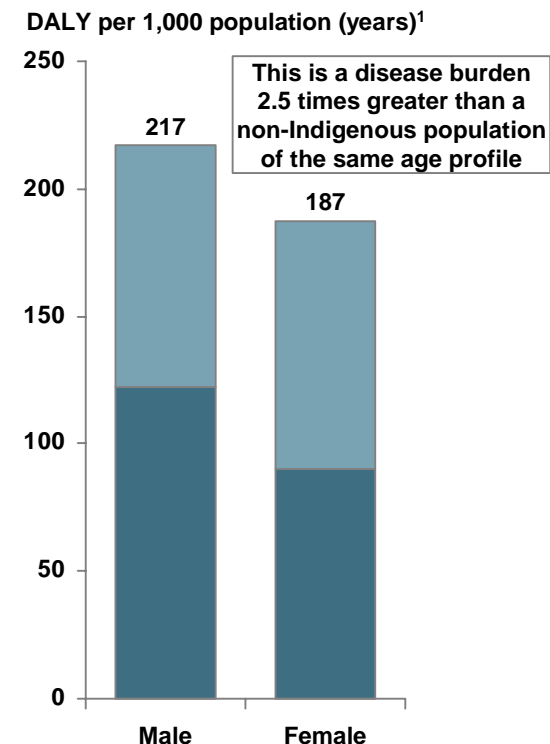
Burden of disease, by regionality – Australia: 2003



For more on social disadvantage, see *Strengthening Communities...* (p11-15)

Indigenous Australians

Burden of disease, Indigenous Australians by sex: 2003



For more on Indigenous health and disadvantage, see *The Future of Indigenous Australia*



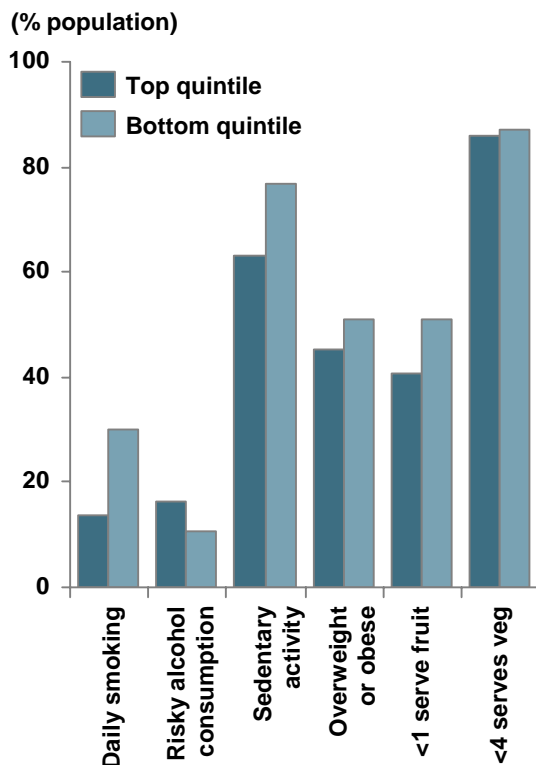
1. Disease Adjusted Life Years (years lost through death by disease, and years lost to disability by disease)

Source: AIHW, *The burden of disease and injury in Australia 2003* (2007); Vos, Barker et al, *Burden of Disease and Injury in Indigenous Australians 2003* (University of Queensland, 2007)

Lifestyle risk factors are also more prevalent in these disadvantaged sectors of society

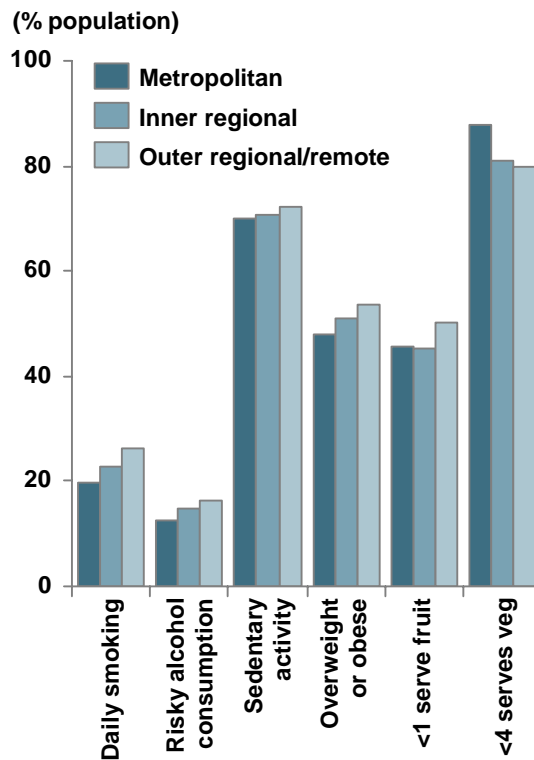
Low socio-economic groups

Prevalence of selected health risk factors, top and bottom disadvantage quintiles 2004-5



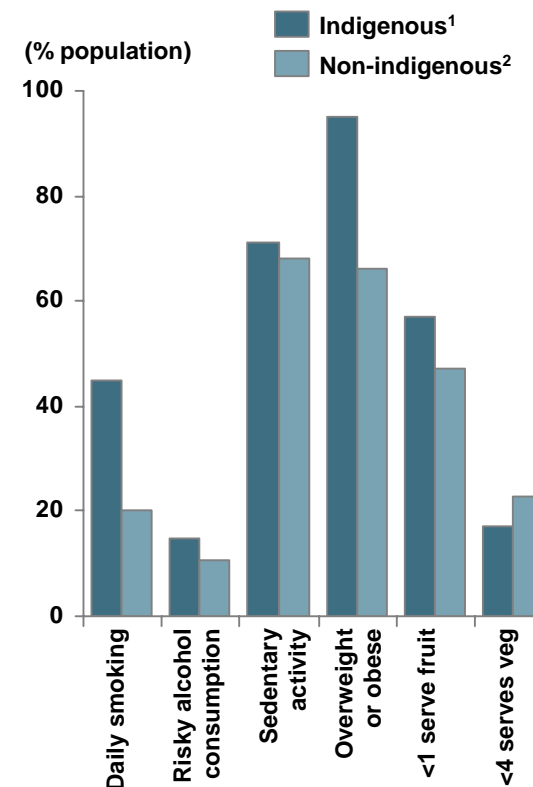
Rural and regional Australians

Prevalence of selected health risk factors, by regionality 2004-5



Indigenous Australians

Prevalence of selected health risk factors, by Indigenous status 2001



For more on social disadvantage, see *Strengthening Communities...* (p11-15)

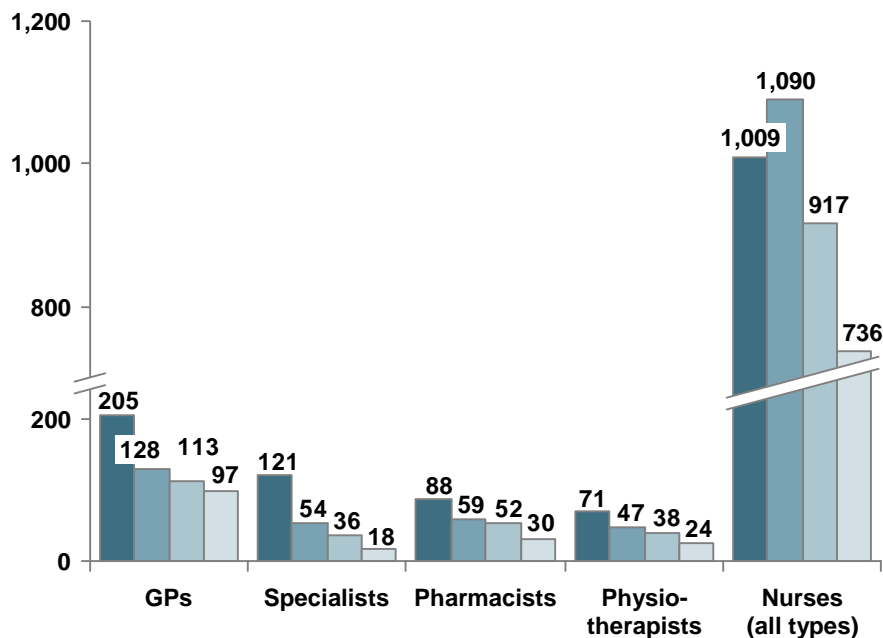
For more on Indigenous health and disadvantage, see *The Future of Indigenous Australia*

1. Refers to Indigenous persons in non-remote areas, according to 2001 National Health Survey 2. Note that non-Indigenous statistics are age-adjusted, to represent estimate for a non-Indigenous population of similar age/sex profile. Therefore figures for non-Indigenous population may not align exactly with absolute figures for overall population by SES or regionality
 Source: ABS, 4364.0 *National Health Survey: Summary of Results 2004-5* (2006); ABS, 4364.0 *National Health Survey: Summary of Results 2001* (2002)

Access to health services also varies significantly across communities

Access to health professionals varies widely

Health practitioners per 100,000 population, by regionality: 2005-06 (#)¹



■ Major city
■ Inner regional
■ Outer regional
■ Remote/very remote



For information on access to other services in rural and regional areas, see *The Future of Regional Australia* (p7-8)

As do the social barriers to health treatment

Private health insurance

- 45% of Australians have private health insurance²
- In addition to offering greater choice of health provider, these insurers help to cover the ~15% of hospital services with "gap" payments not covered by Medicare

Labour force barriers

- It is estimated ~25% of the working population is employed on a casual basis³
- Where employment status does not include the right to paid sick leave, there may be an economic disincentive for taking time out of work to seek medical treatment (over and above the cost of treatment itself)

Education and language barriers

- ~15% of Australians speak a language other than English at home and ~3% of Australians speak English only poorly or not at all
- A Victorian study indicated that people who prefer to speak a language other than English are significantly under-represented in obtaining mental health services, both community-based and inpatient

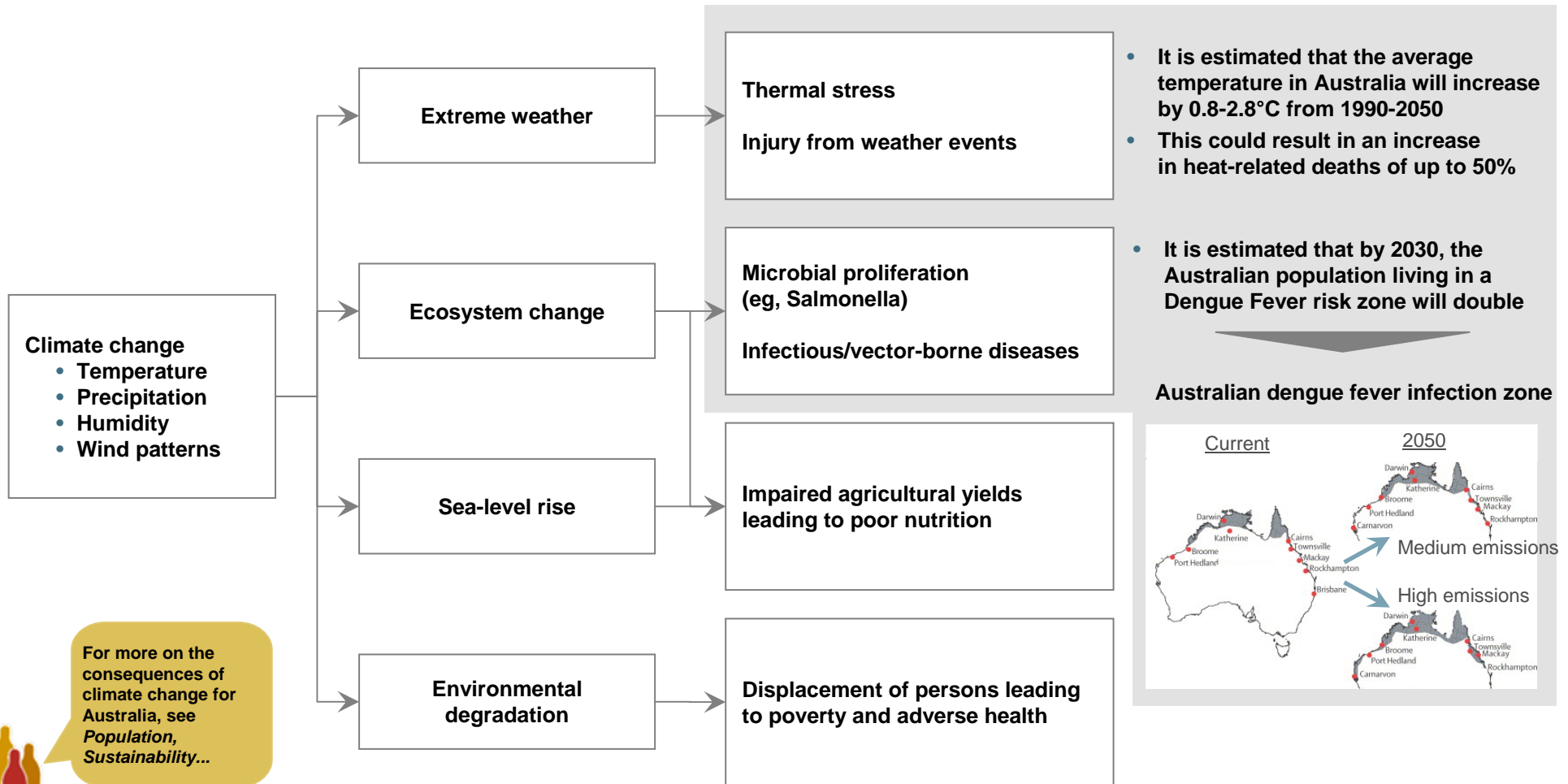
Social stigma

- A 1997 survey suggested that nearly 70% of people with mental health issues did not seek treatment – social stigma is thought to be a major contributor
- A 2000 study found that almost 1 in 4 Australian men had not seen a GP in the previous 12 months (compared with 1 in 10 women)

1. Based on numbers of people employed, not FTE. 2. As at December quarter 2007 (PHIAC) 3. As at 2004 (ABS)

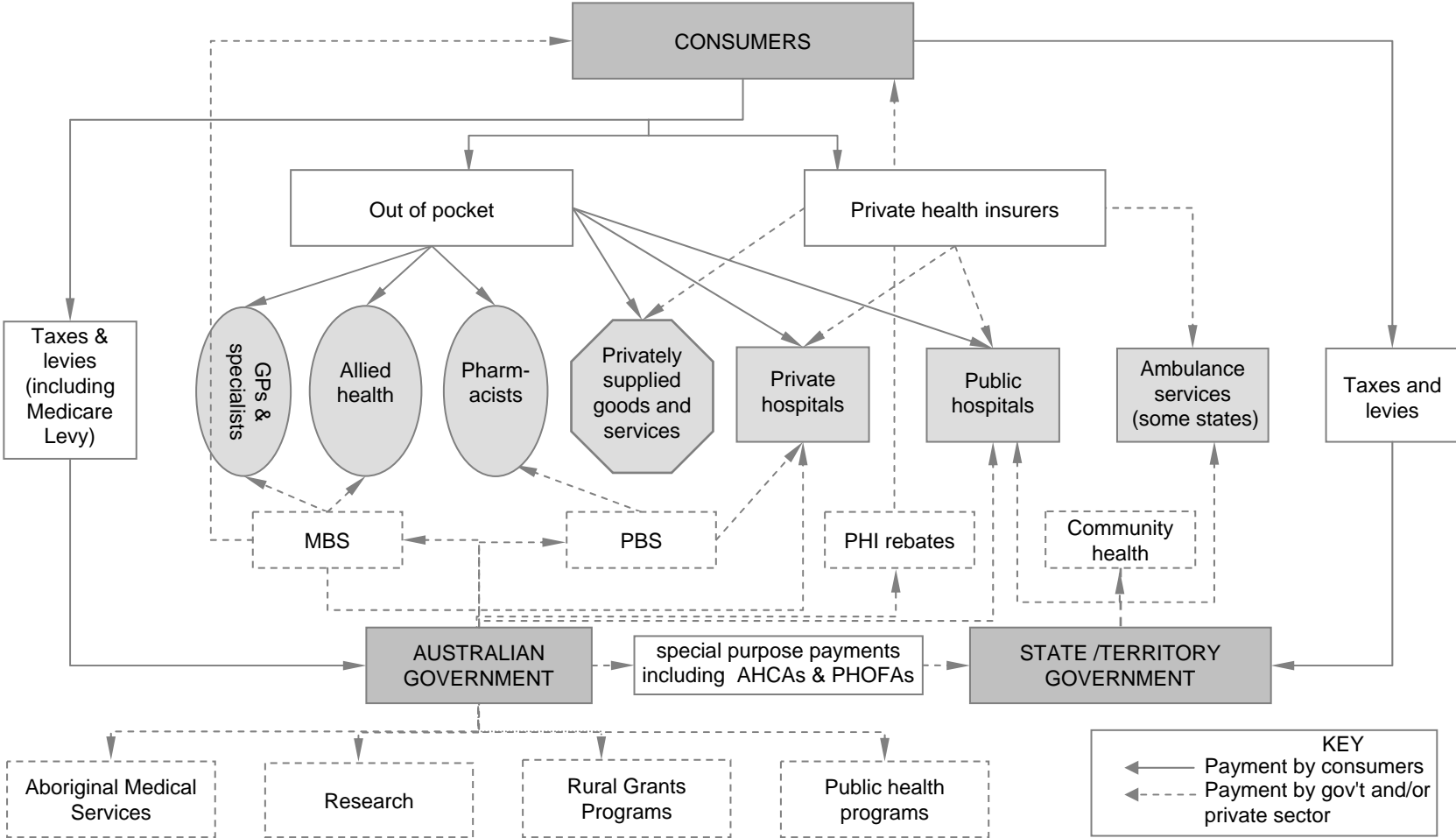
Source: Most recent data on health practitioners provided by Federal Department of Health and Ageing; figures available on request. Private Health Insurance Administration Council (PHIAC), *Quarterly Statistics, December 2007*; ABS, 1301.0 *Year Book Australia 2006*; ABS, 2068.0 *Census Data 2006*; AIHW, *Male consultations in general practice in Australia 1999-2000* (2003); Klimidis et al, *Mental Health Service Use by Ethnic Communities in Victoria, 1995-6* (VTU, 1999)

Climate change is expected to have adverse health effects



Source: McMichael et al, *Climate change and human health: present and future risks* (2006) The Lancet 367; Abare, *Climate Change Impacts on Australian Agriculture* (2007); Pittock, *Climate Change – An Australian Guide to the Science and Potential Impacts* (Department of Climate Change, 2003)

The Australian health system is a sophisticated public-private and federal-state blend

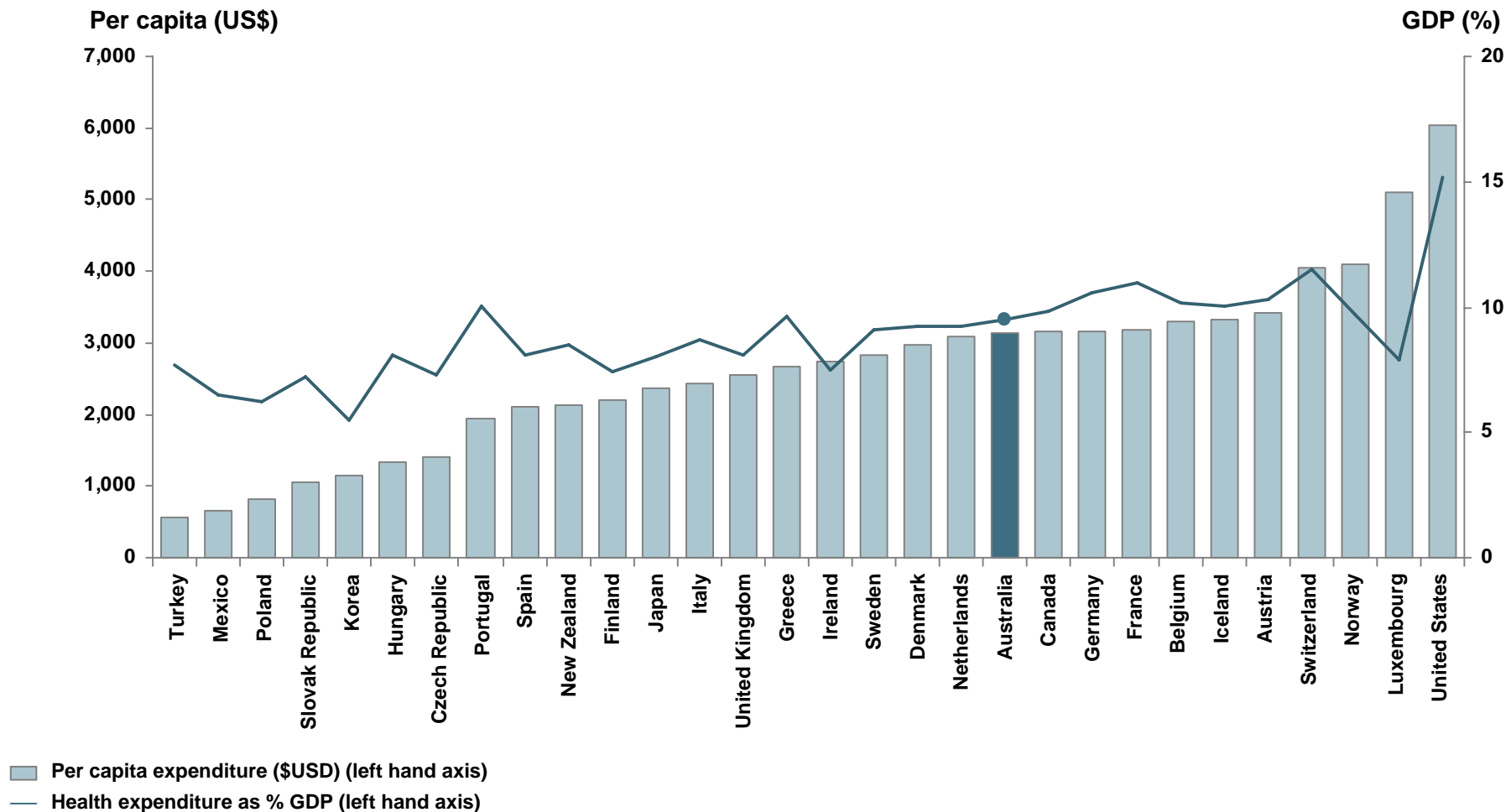


This gives rise to a mixed model of service provision and accountabilities

Source: Schematic courtesy of Australian Department of Health and Ageing

Australia spends an average amount on health compared to other OECD countries

Health expenditure - OECD countries: 2004 (US\$ per capita, % GDP)

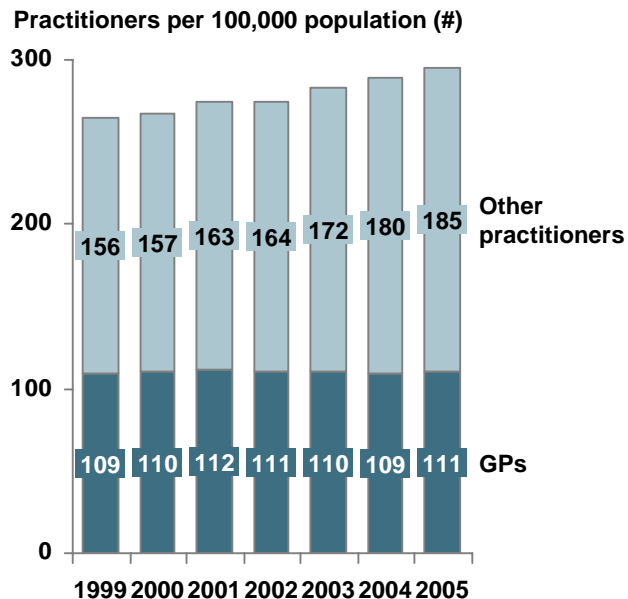


Source: OECD, Health Data 2007

The Australian medical workforce will face many challenges in meeting future demand

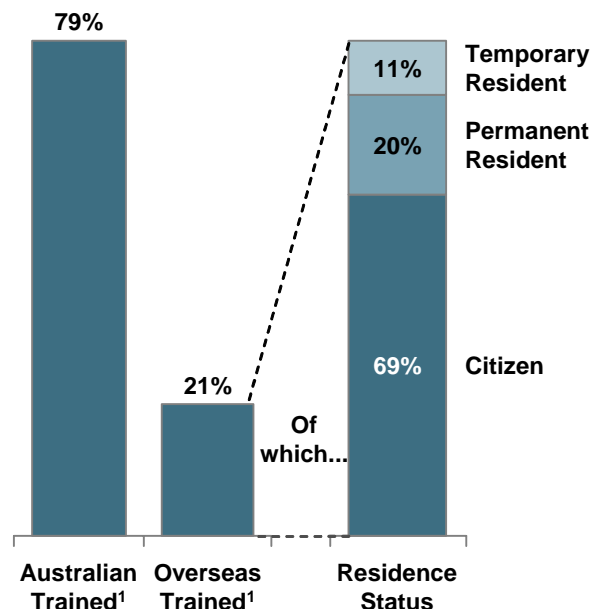
The medical workforce is growing, but GPs only just meet population growth

Medical practitioners per 100,000 population, Australia 1999-2005



We rely heavily on overseas-trained health professionals

% medical practitioners by place of qualification and citizenship status of overseas qualified, 2005



Our future workforce will have to flexibly meet community needs

An increasing number of medical practitioners are working part time, especially women

- 15% of men and 38% of women work less than 35 hours per week²

Many practitioners operate across multiple clinical settings

- In 2005, practitioners worked in an average of 1.2 settings (private practice) or 1.3 settings (public practice)

Recent reforms to the health workforce have seen some roles and responsibilities expand to cope more flexibly with population demand

- The introduction of Nurse Practitioners allows them to perform some duties previously reserved for GPs e.g. prescribing medicine/ordering tests – particularly important in remote areas
- Recent changes to the Medicare schedule allow longer GP consultations for managing mental illness/chronic disease

A strong base of national information will be central to effective workforce planning

1. Refers to country of first qualification 2. This is an increase from 14% and 36% respectively in 2001
Source: AIHW, *Medical Labour Force 2005* (2008)

There is opportunity to improve future productivity through new systems and approaches to care

Evolving modes of care/clinical delivery

In the context of chronic disease, communities, healthcare practitioners and individuals will have increasingly interconnected roles in the management of population health



- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Public screening/ new vaccinations • Community campaigns to reduce lifestyle risk behaviours • New approaches to education and reduction of risk factors in children | <ul style="list-style-type: none"> • New approaches to developing long-term management plans in consultation with primary healthcare providers • Increased powers of non-acute carers to manage chronic conditions • Greater integration of allied and community health professionals in ongoing disease management | <ul style="list-style-type: none"> • New tools and home-based technologies for self-monitoring • Support for carers in managing health of disabled persons |
|--|--|--|

Electronic health infrastructure

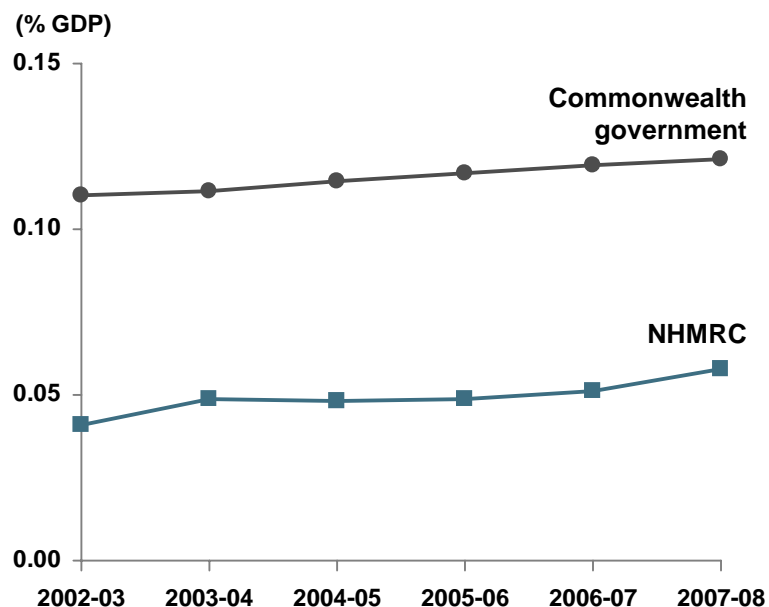
An integrated approach to electronic health record management and information sharing has potential to help all players in the healthcare sector

- | | |
|-----------------------|--|
| Providers | <ul style="list-style-type: none"> • Fuller patient information (especially when patient is incapable of providing it) enables more informed and efficient clinical decisions, improved risk management, and avoids unnecessary procedures/tests |
| Administrators | <ul style="list-style-type: none"> • Administrators have better demand information to make more efficient and effective use of resources |
| Researchers | <ul style="list-style-type: none"> • Researchers may access more comprehensive data, to more effectively analyse disease pathways and the effectiveness of interventions |
| Funders | <ul style="list-style-type: none"> • Funders can connect immediately to providers to make real-time coverage, approval and payment decisions |
| Policy-makers | <ul style="list-style-type: none"> • Policy-makers can gather better data to understand and manage demand, and to direct resources towards interventions which produce the most effective health outcomes |
| Patients | <ul style="list-style-type: none"> • Patients – particularly those with chronic diseases – can take more ownership of their own medical information, assisting self-management. They can simplify their interactions with payers/providers and reduce duplication |

The current Australian health research and innovation environment is challenging

Australian investment in health research has flattened out in recent years

Australian expenditure on research, Australian government and National Health and Medical Research Council, 2002-3 to 2007-8



For more on innovation and R&D in Australia, see *Education, Skills and the Productivity Agenda* (p16)

Translating innovation into clinical or systemic change is a challenge

Some challenges to realising health research in Australia include

- The separation of research from clinical practice – in funding, institutions and persons
 - Limited formal or informal relationship networks between practicing clinicians and scientists to overcome this divide
 - Inadequate incentives, opportunities and time for knowledge transfer
- Limited input from health system into guiding research direction
- Incentives to develop new technologies locally, but commercialise them globally (especially in the US) to secure broader global regulatory approval

However, some market indicators show that at least the Australian private biotechnology field might be improving

- The biotechnology/medical devices sector experienced consolidation and growth in 2006, and healthy merger & acquisition interest from overseas investors/buyers
- Australian biotechnology patents issued in the US experienced a sharp increase in 2006
- Australian pioneering work in the anti-cancer vaccine Gardasil is one success story in this vein



Questions

What public conversation do we need around the broader population health challenges?

What are the responsibilities of the individual and the state in behaviour-related illnesses?

What should be the balance of investment between treatment and prevention?

What strategies will improve health outcomes and the incidence of disease risk factors in the general population, and in high need groups (such as the Indigenous population and people with low socio-economic status)?

Why are healthy lifestyle messages regarding exercise, diet, smoking and alcohol abuse not being heeded more?

How can sectors outside 'health' contribute to a healthier population? For example, can we design cities in a way that promotes a healthier lifestyle?

Where should clinical research focus its energies?

How do we plan for emerging health challenges?

What is the future of health education in Australia, and the role of foreign-trained workers?

What can be done to improve safety and quality standards, including clinical protocols?

To what extent are the challenges in the health system resolved by extra monies rather than structural reform?

What strategies need to be considered to ensure equitable access to health services?