

An ageing population

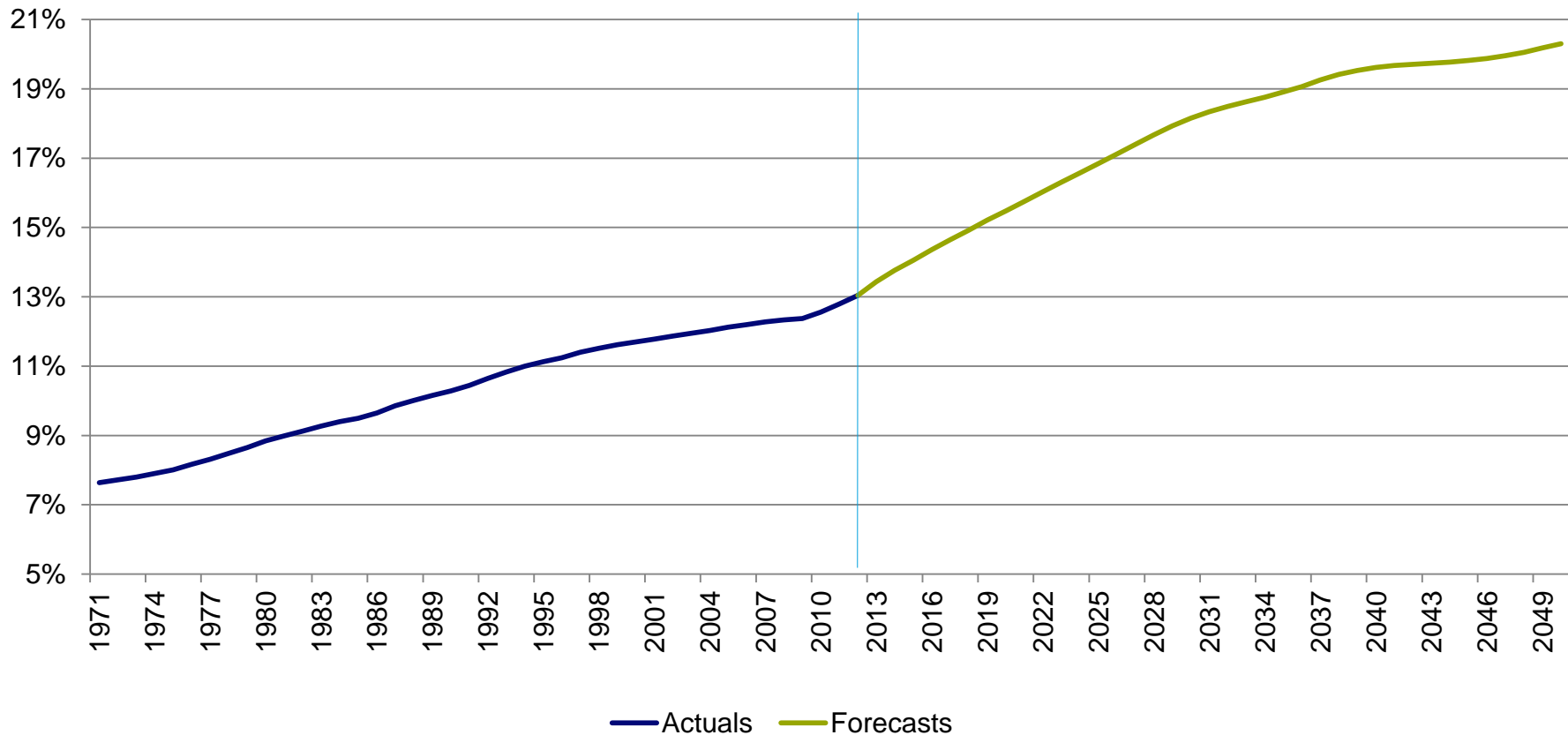
- Fertility and mortality rates are decreasing
- Average life expectancy has increased 8 years for males and females over the past 40 years



Source: ABS Australian Demographic Statistics and ABS Population Projections, Australia

The 'dependency' ratio (Census)

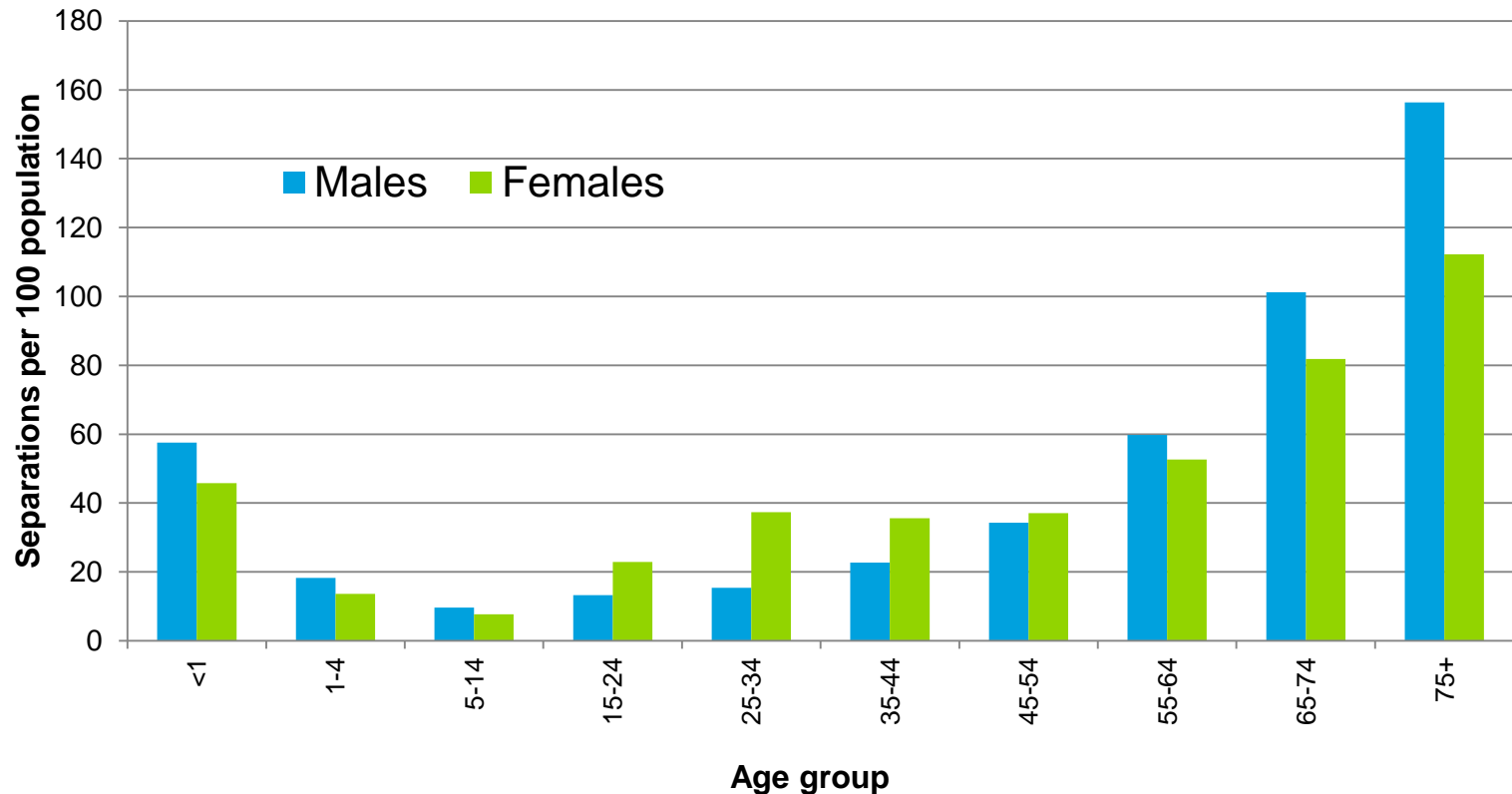
65+ share of population - 8% in 1971, 13% in 2011, 20% in 2040, 25% by 2101



Source: ABS Australian Demographic Statistics and ABS Population Projections, Australia

Hospital service utilisation

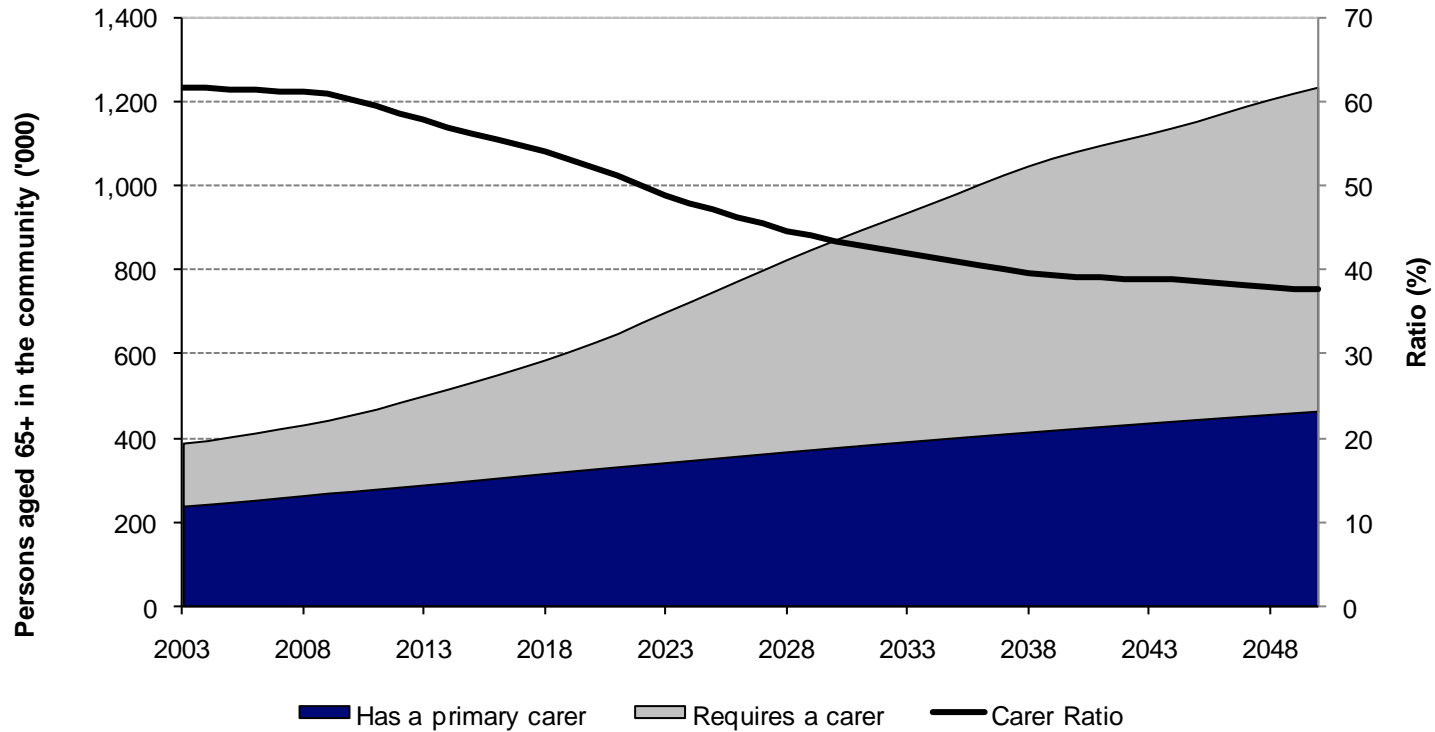
- 75+yo rate is 3-4 times that of 45-54yo; by 2040, need 50% more services (ageing effect only)
- Women less on average!



Source: AIHW ICD-10-AM Data Cube and ABS Australian Demographic Statistic

Demand growth will exceed supply growth of 'informal' (family) care

- The 'carer ratio', of 'informal' primary carers to older people with a disability, is projected to fall from 57% now to under 40% by mid-century, placing added pressure on the 'formal' aged care sector

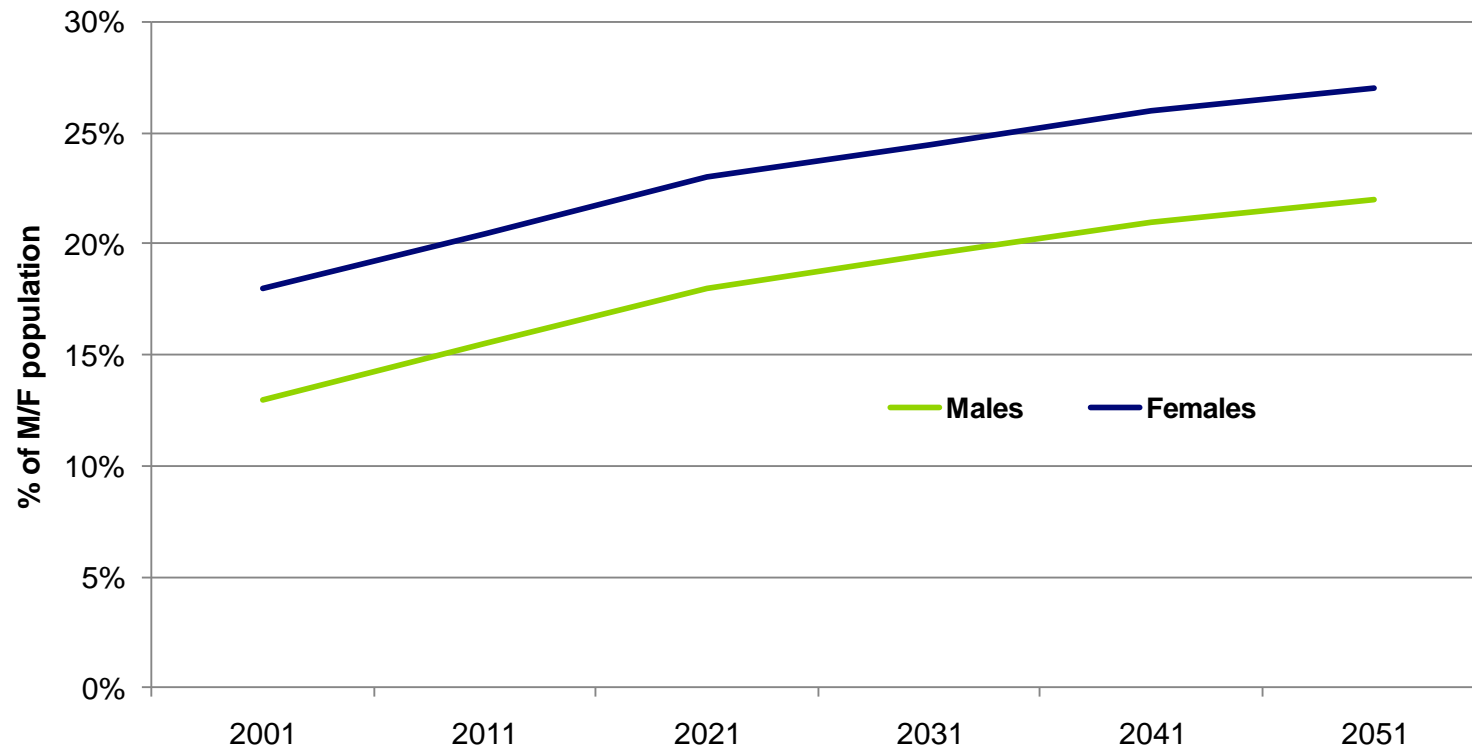


Chronic disease is growing

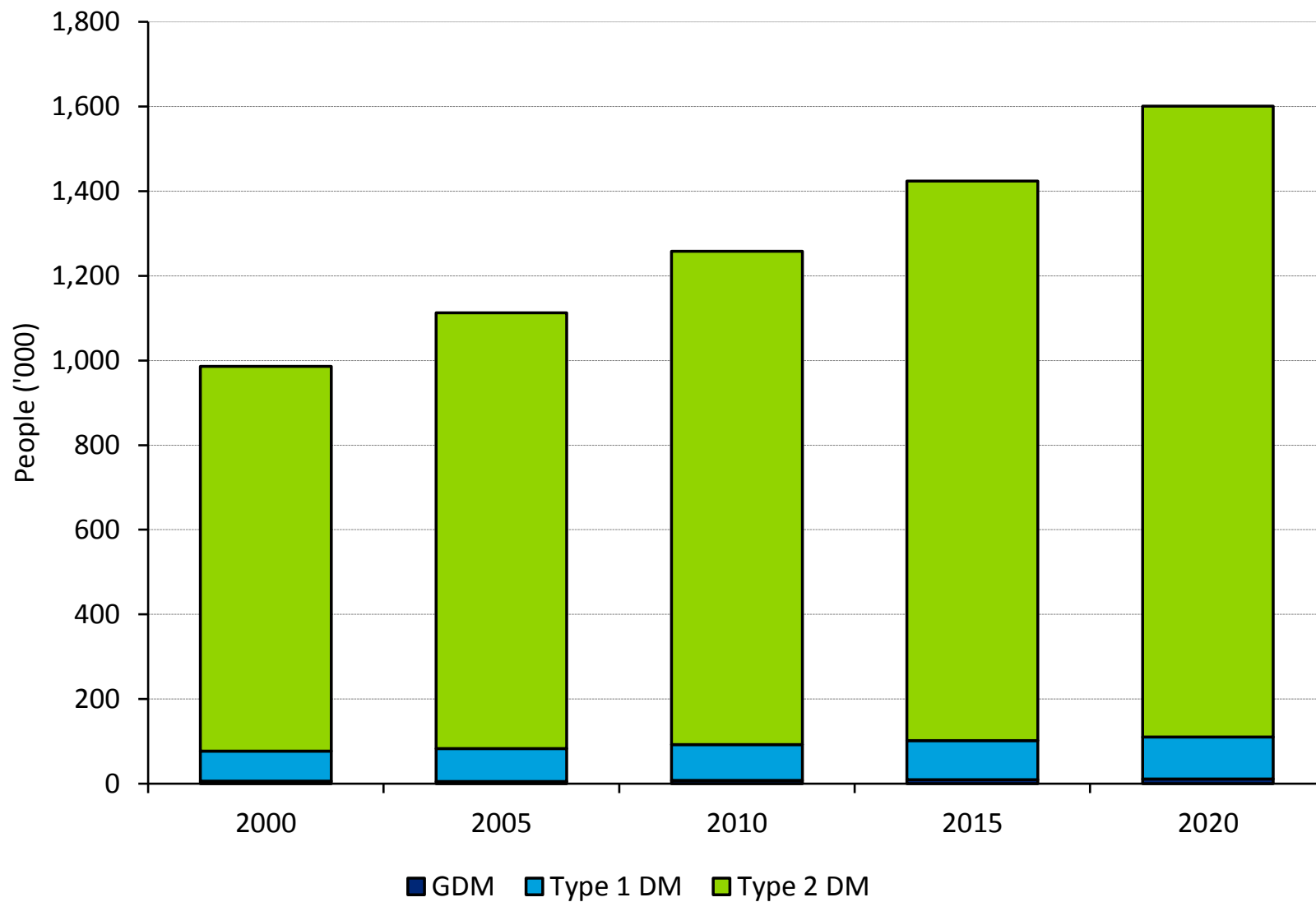
- High and growing prevalence of chronic disease in Australia – our 3rd epidemiological transition in a century
- Drivers of growth are lifestyle factors and population ageing
- Chronic disease currently 70% of total disease burden in Australia and set to hit 80% by 2020 (NSW DoH, 2008).
 - cancers (19% of the total),
 - cardiovascular diseases (16% of the total),
 - mental disorders (13% of the total) and
 - diabetes (6.6% of the total).
- Disease burden is measured in DALYs (disability adjusted life years) by AIHW (Australian Institute of Health and Welfare), comprised of:
 - YLD years of healthy life lost due to disability; and
 - YLL years of life lost due to premature death.

Cardiovascular disease trends

- 1 in 6 prevalence today will increase to 1 in 4 by mid-century
- Assumes no change to CVD risk factors...

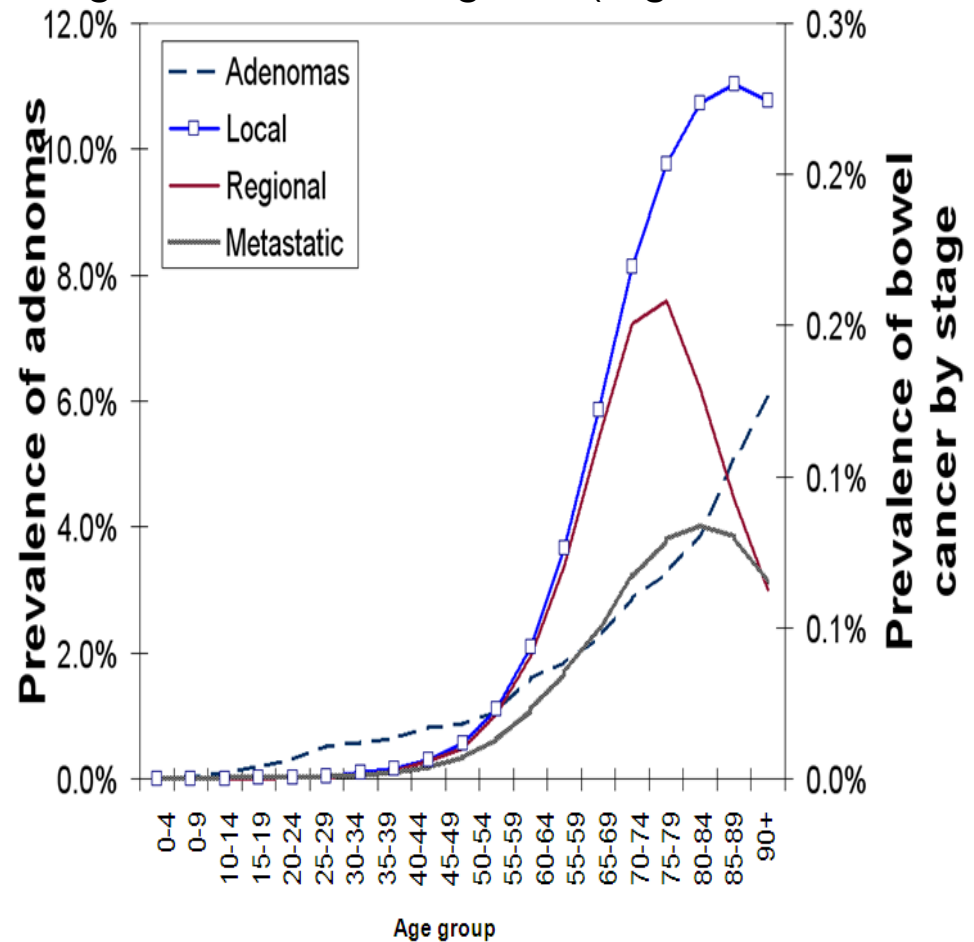


Diabetes trends



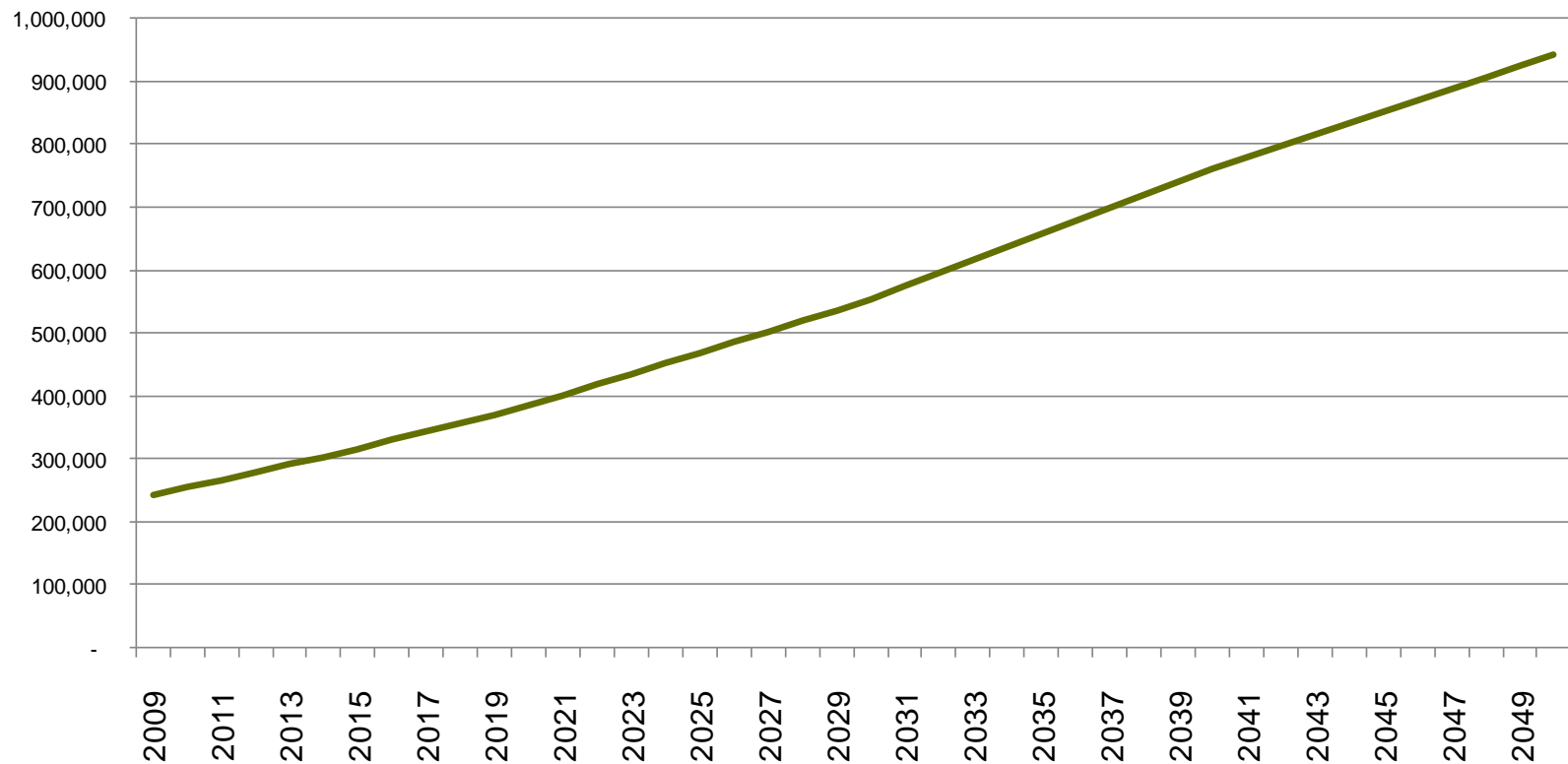
Cancer incidence is also correlated with age

- E.g. colorectal (bowel) cancer (data from the NBCSP)
- Cancer screening interventions are reducing incidence of later stage cancers, lowering mortality from cancer, and have been shown to be cost effective in particular age/target groups, depending on the screening tool (e.g. FOBT c.f. colonoscopy)
- Other screening/prevention interventions are BreastScreen Australia, the national PapSmear register, and the Gardasil vaccination program
- Risk of diagnosis (any cancer, M+F) to 75 years = 1 in 3, to 85 years = 1 in 2



Dementia trends

- Will become Australia's largest source of *disability* burden by 2016
- Fourfold prevalence increase by 2050



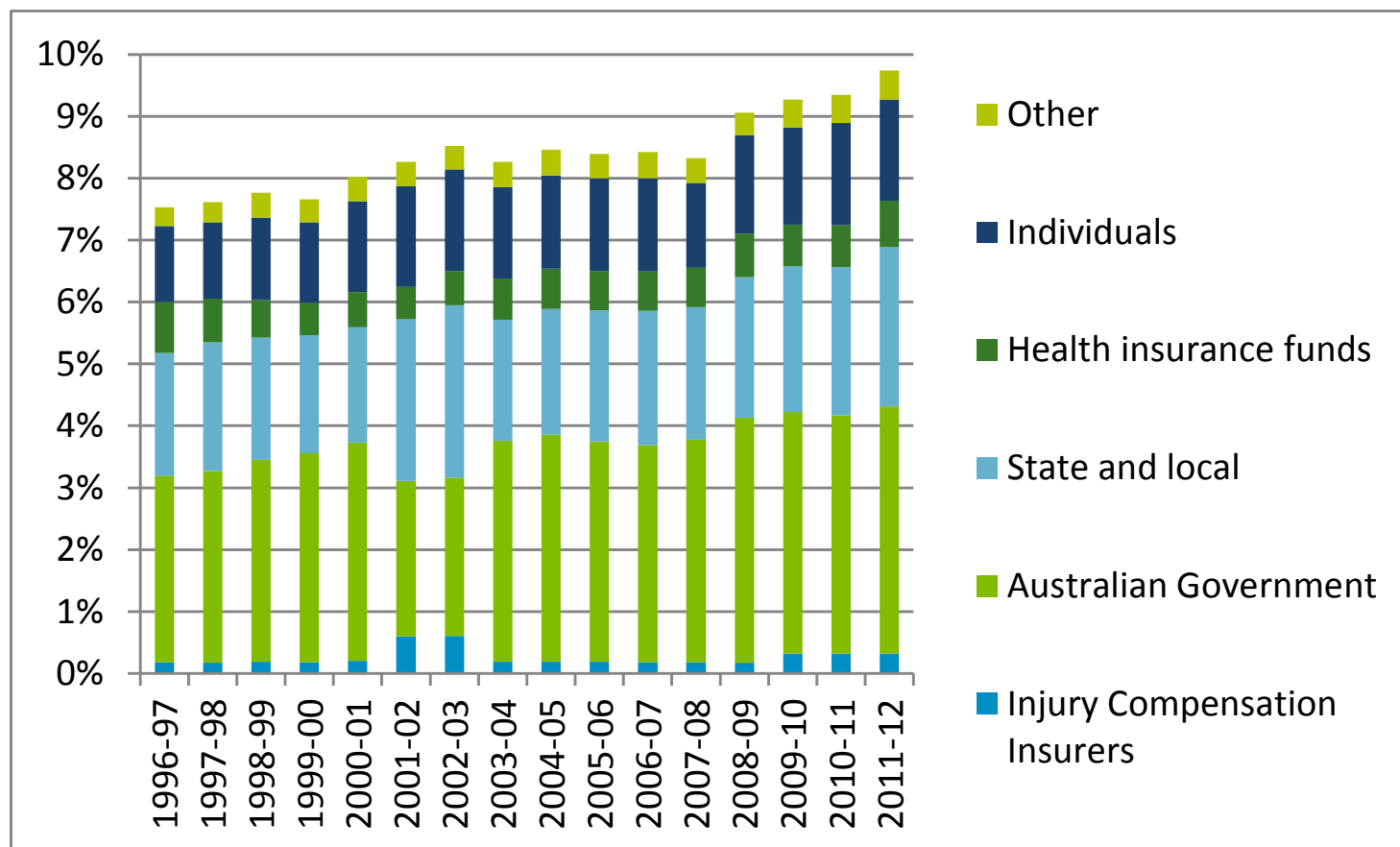
Technology enables supply to keep pace with demand but at higher cost

- Tailored cancer therapies and other pharmaceuticals (e.g. large molecule drugs)
- Medical devices and prostheses
- New surgery techniques, imaging and models of care (can reduce ALOS/cost)
- Telehealth and e-health
- Technology also now disseminates information more effectively, which fuels growing patient expectations for care as well as indemnity claims
- Health R&D returns around 3:1 (the value of wellbeing gains attributable to Australian health R&D), with most of the returns in the second half of last century being from CVD and cancer R&D (e.g. statins, antihypertensives, cancer therapies)



Growth trends in health expenditure

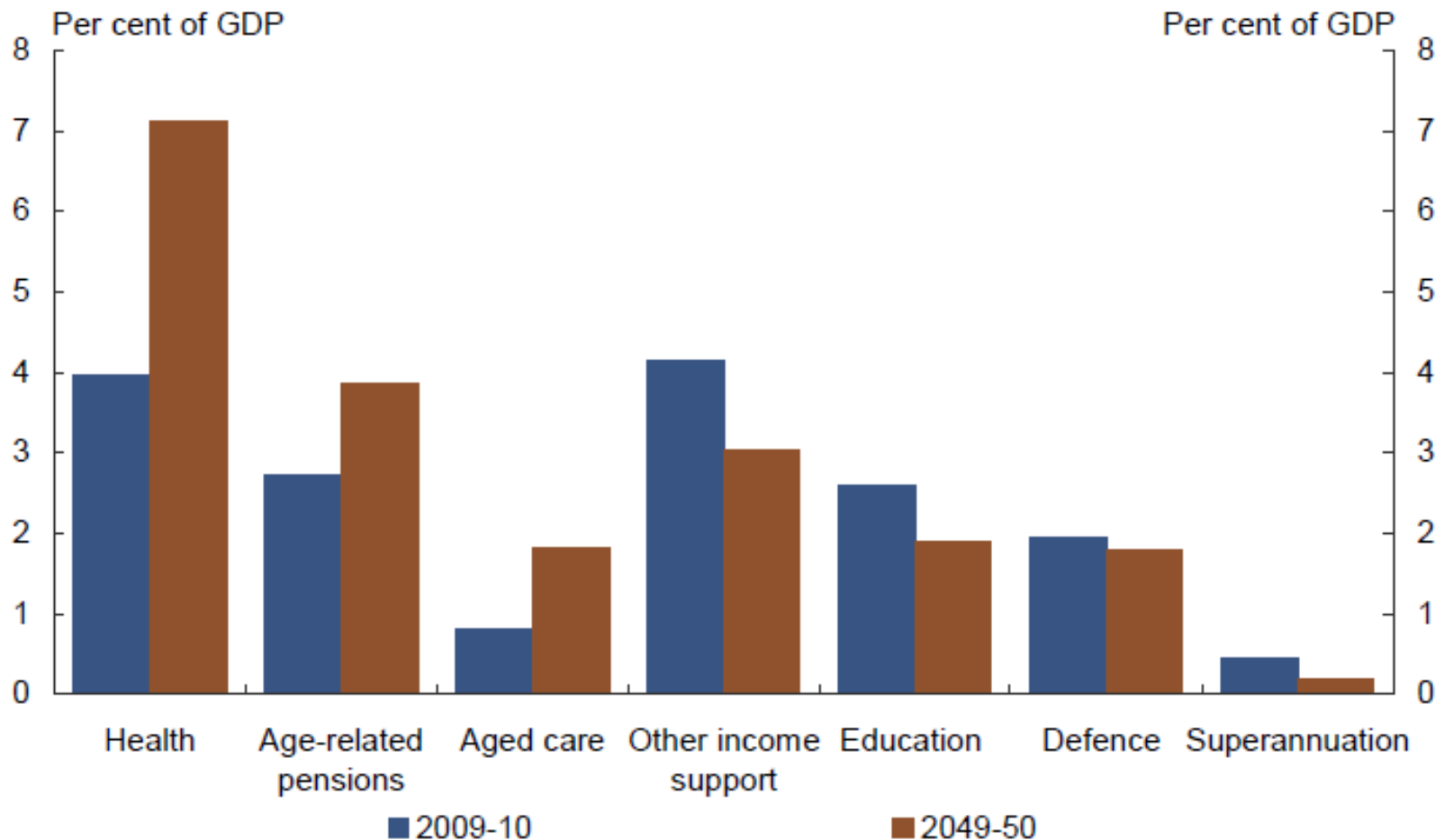
- In 2011-12 Australia spent 9.5% of Gross Domestic Product or \$140.2 billion with government accounting for 69.7% of funding
- Expenditure has grown from ~4½% of GDP in 1970 to nearly 10% now



Source: AIHW data cube, 2011

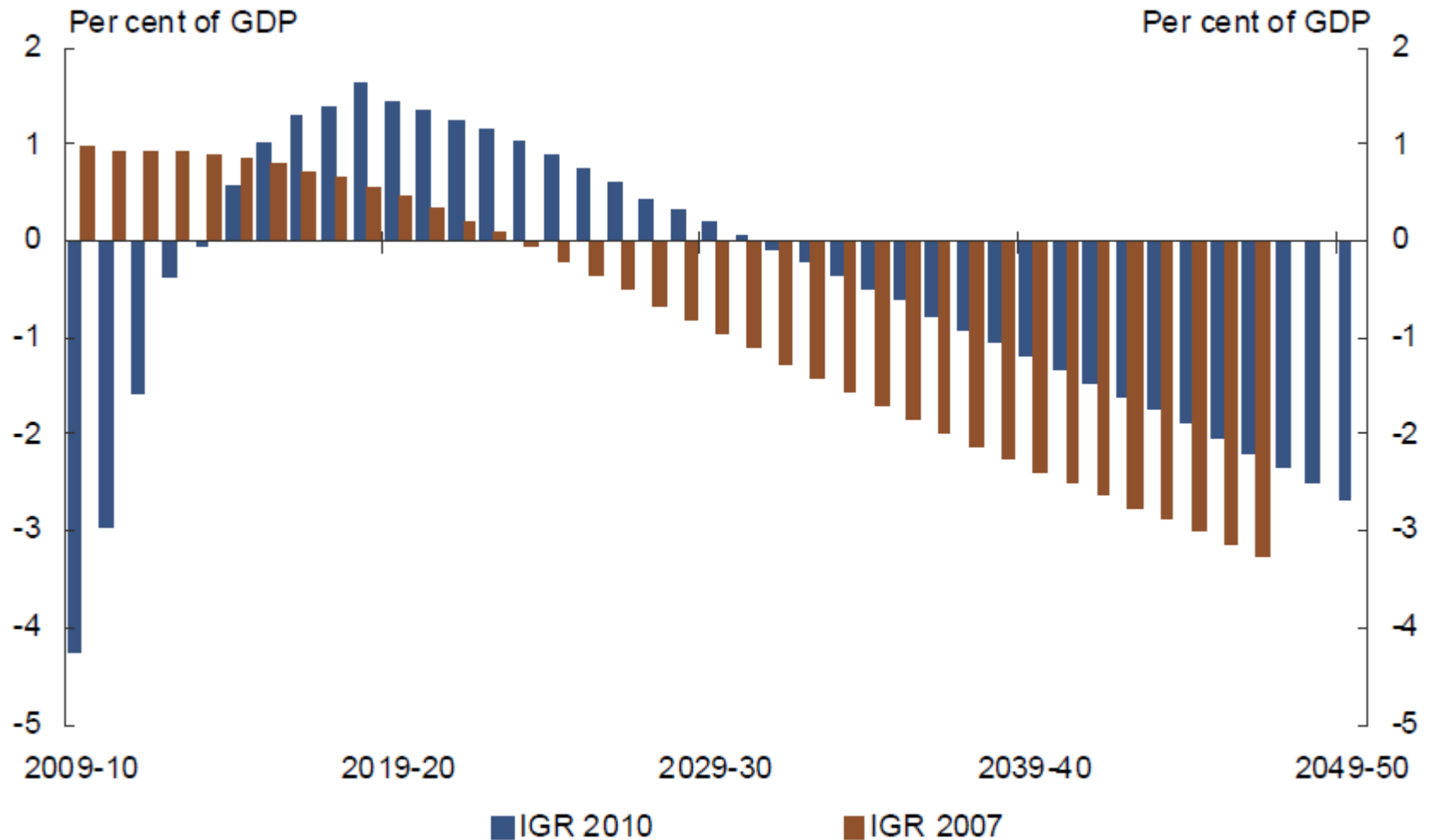
IGR projections

- IGR 2010 projects health spending by the Australian government will increase from 3.7% in 2009-10 to 6.9% by 2049-50.



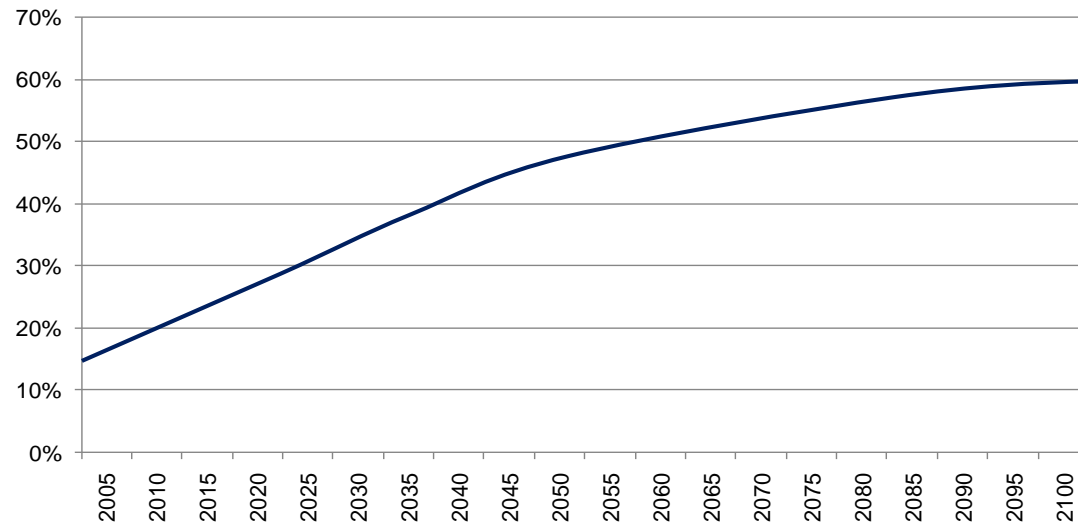
IGR Federal Government budget position – fiscally unsustainable

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Drivers of growth

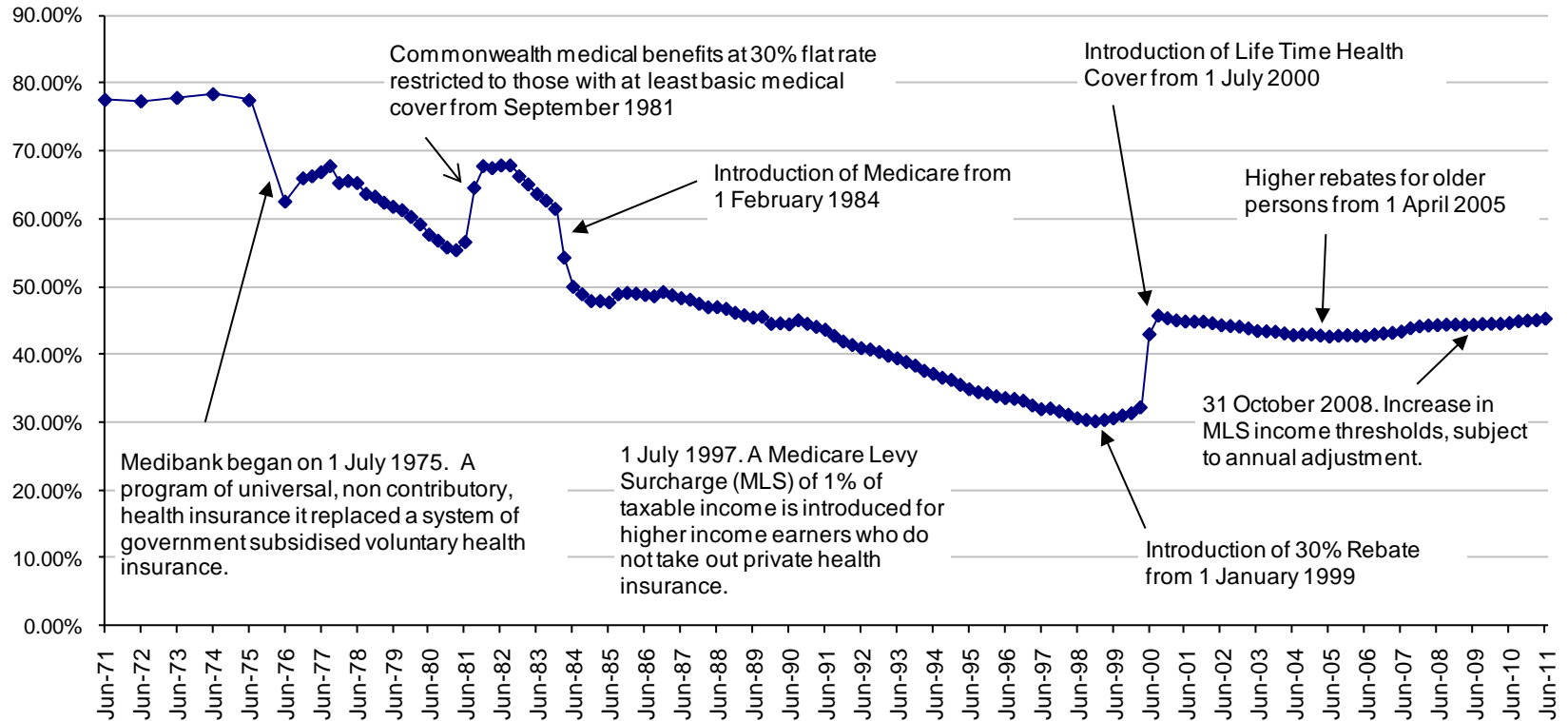
- Demographic ageing, epidemiological change, technology and expectations
- Income elasticity of demand
 - Higher incomes – higher real GDP per capita changes consumer preferences to leisure, outsourced services and health (Access Economics, *The Silver Market Goes Platinum*)
 - $IED = (\% \text{ change in quantity demanded}) / (\% \text{ change in income})$
 - Health IED estimated to be around 2, relative to all other goods and services
 - Prof Robert Hall (US) estimates increase in the health sector in the US to 60% of the economy by 2100



Private hospital treatment coverage: the swinging pendulum

PC Report suggests private hospitals more efficient...

Hospital Treatment Coverage (insured persons as % of population)



Source: Private Health Insurance Administration Council, 2011

Telehealth for aged Australians

- **Telehealth** is a subset of e-health that involves using information and communication technologies (ICT) to support off-site clinical healthcare.

Real-time telehealth	Store & Forward	Remote patient monitoring	Tele-education
Teleconsultations performed across a wide range of specialties, often via video link.	Asynchronous transmission of medical data for remote diagnosis (e.g. echocardiograms (ECGs), photographs of skin lesions, blood glucose levels and x-rays).	For example, the transmission of medical data for disease and injury management and prevention, remote foetal monitoring or support and care for elderly people with chronic conditions.	The transmission of medical information either for training health professionals or to assist the public to manage their health.



Preventive health – healthy ageing

- Potentially avoidable conditions account for around 20% of Australian total health care expenditure. 14 risk factors including tobacco smoking, high blood pressure, alcohol harm, physical inactivity and obesity account for almost 1 third of Australia's total burden of disease (*Australia's Health 2010*)
- Prevention activities include:
 - primary prevention i.e. limiting risk factor exposure (immunisation, school-based health promotion programs, education and control activities)
 - secondary prevention i.e. early detection and intervention (cancer screening programs, detection and treatment of sexually transmissible infections) and
 - tertiary prevention i.e. reducing complications of disease (e.g. controlling blood sugar levels of people with diabetes)
- 2008 National Partnership Agreement on Preventive Health (NPAPH) & the Australian National Preventive Health Agency (ANPHA) were abolished in the May 2014 Budget.
- Increasingly preventive health is about aspects such as environmental design, including aspects such as bike and walking paths, and other initiatives where Local Governments can play a role.

Summary

- The Australian population continues to age, with associated increases in dependency rates, chronic disease prevalence, health service and informal care needs
- Technology has enabled supply of services to keep pace with needs, but only with growing health & aged care costs, which will continue to rise as a % GDP
- This is not fiscally sustainable, so costs are being shifted increasingly to the private sector and individuals
- Traditional infrastructure and capacity models of health care for older Australians will be strained, leading to greater use of technologies such as telehealth & RPM
- Although a focus on preventive health has commenced, much more needs to be done in this area to deliver healthy ageing going forward.
- There is a role for Local Government in preventive health initiatives.

Questions?



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