

Who Will Fund Our Health?



GREEN PAPER
December 2014

Contents

EXECUTIVE SUMMARY	2
1. WHY IS HEALTH CARE EXPENDITURE INCREASING?	6
2. POPULATION AGEING: A CHALLENGE FOR FUTURE GENERATIONS	8
3. WHO PAYS FOR HEALTH CARE?	12
4. WHAT DOES THIS MEAN FOR FUTURE GENERATIONS?	15
5. HOW DOES AUSTRALIA COMPARE?	18
6. HOW CAN WE TACKLE THE CHALLENGE?	20
7. A COMPREHENSIVE POLICY FRAMEWORK – THE WAY FORWARD	28
REFERENCES	30
CONTACTS	32

This Green Paper was commissioned by the Actuaries Institute and prepared by Kirsten Armstrong and Sophie Dyson, Directors, Three Rivers Consulting.

Executive Summary

The Actuaries Institute has a vital interest in public policy issues linked to demographic change. Actuaries understand the financial risks associated with Australia's ageing population and have long advocated greater policy focus on managing longevity risk – the risk of the elderly outliving their financial resources. This green paper highlights the growing risk for society and government of failure to recognise and respond to the impact of demographics on our health system.

This paper is not a blueprint for fixing the health system. It is intended to be a catalyst for the generation and discussion of ideas in order to help policymakers and stakeholders manage the challenges facing Australia's health care system. Although potential remedies are raised in the paper these are not endorsed solutions, but financing options for further consideration and debate to drive sensible policy reform.

Although this paper does not investigate the important area of seeking cost efficiencies in the delivery of health, we acknowledge it is another area that is being, and must continue to be, addressed.

Demographic change is increasing health care expenditure

Governments around the world are facing the challenge of increased health care expenditure driven by, ageing populations, the cost of new medical technologies and higher public expectations.

Health care costs rise dramatically with age – health expenditure for an 85 year old Australian is more than four times that for a 50 year old. By 2049-50 the number of Australians over 85 will more than triple.

Lifestyle factors also play a key part in rising health care costs and Australia scores poorly on many of these factors e.g. some 28% of Australians aged 18 or over are now obese.

Ageing is the most predictable factor which will influence future health expenditure. It is a key factor that affects our ability to fund health care. Ageing and demographic change is therefore the focus of this paper.

Our population is predicted to live significantly longer and forecasts indicate that spending on health care across all levels of government is expected to grow from 6.5% to 10.8% of GDP over the next 50 years.

In other sectors, governments have acted decisively to try to 'future-proof' some of the future costs to government of ageing. Examples include compulsory superannuation introduced in the 1990s and the more recent overhaul of aged care funding.





Who pays for health care?

It is working age households who contribute the most to health care costs, through taxation.

Health care remains almost entirely funded on a pay-as-you-go basis and largely through general taxation. Pre-funding of future health care needs is virtually non-existent.

Total expenditure on health goods and services in Australia was an estimated \$147.4 billion in 2012–13 (9.7% of GDP). Currently 68% of health expenditure is funded by Australia's various levels of government.

It is not just governments that need to worry about the cost of health care. At all ages, a considerable share of health care costs are borne directly by the Australian population through out-of-pocket payments and private health insurance.

Implications for future generations

Some intergenerational cross subsidy is an inevitable part of our health care system (as it is with other services) but the cost on the working population through taxation needs to be addressed in order to protect the quality of Australia's health care services and system.

Working age people will be supporting the health care costs of an increasing number of older people. By 2049–50, there will be twenty people aged 75 and over for every 100 working age people, compared to ten now. For the over 85s, where health care costs rise dramatically, there will be seven people aged 85 and over for every 100 working age people, compared to just three now.

Without policy action, the working population may be paying almost double their own health expenditure to subsidise older Australians compared to a current rate of 1.4.

How can we tackle the challenge?

Australia is not alone in facing the need to address the future funding of health care costs. Across the OECD, many countries are seeing rapid ageing, and Australia is roughly in the middle of these changes.

The following policy options to tackle this long-term challenge are explored, drawing on lessons from other countries and from other sectors in Australia. These are not endorsed solutions but examples of the approaches that should be discussed.



Working longer

Enabling people to work longer improves health status and boosts personal savings, and will be a critical part of meeting future health care costs. Both government and businesses need to support workers who are able to work longer to stay in the workforce.

Savings and pre-funding

There are several international approaches involving pre-funding of future health care costs including Medical Savings Accounts, Sovereign Wealth Funds and pre-funding future health insurance premium increases. Pre-funding is often a good long-term strategy for future-proofing, but with the first of the baby boomer generation already starting to retire, we may be too late to pre-fund some of the more significant generational health care costs looming on the horizon.

The potential role of wealth

By 2030, almost half of household wealth will be in the hands of the over 65s. This fact leads to the question does it make sense, and is it equitable, to ask this cohort to pay more to help fund future health care costs? The major reforms to the funding of aged care – *Living Longer Living Better* – which came into law on 1 July 2014 focus on just this issue. These reforms include a greater emphasis on 'user-pays' with increased means testing arrangements along with fee caps and lifetime limits.

The challenges in health care provision are unique, and a 'user-pays' approach could lead to higher mortality and poor health outcomes. Solutions to address this question will need to be equitable, practical and acceptable to the community whilst ensuring that all Australians have access to free or low-cost health care, consistent with Medicare's aims.

The way forward

Without a rigorous and comprehensive policy effort, the Actuaries Institute argues that Australia will face a series of major public policy problems in the funding of health care. The Institute argues that the next steps to address this major social policy challenge are consistent with the approach the Institute advocated in its submission to the Financial System Inquiry including:

- ▶ **adopt a comprehensive framework for policy formulation on all issues relating to the sustainable financing of our ageing population;**
- ▶ **manage the system using 'insurance principles' by focusing on risk management, financial sustainability and data analytics; and**
- ▶ **create an open data regime to allow increased access to and analysis of important government-held data and modelling information to better manage macro-level health financing risks.**

The way forward

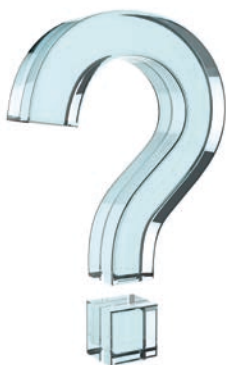


The current health care funding system needs to be future-proofed effectively, to relieve the future cost on younger generations, and ensure later life health care quality is not downgraded.

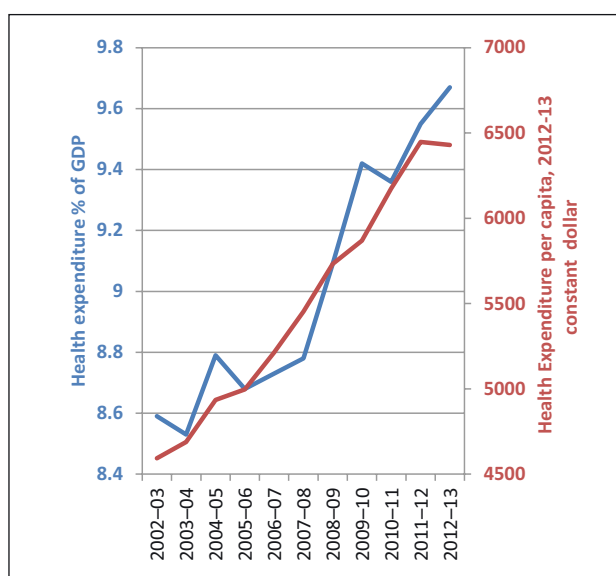
Why is health care expenditure increasing?

**Figure 1:
Health Expenditure
(all sources), % GDP
and per capita,
Australia 2002-03
to 2012-13**

Source: AIHW Health
Expenditure 2012-13 >



Total expenditure on health goods and services in Australia was an estimated \$147.4 billion in 2012-13 (9.7% of GDP) (AIHW 2014c). Although 2012-13 saw a 'dip' in per capita health care expenditure, when measured as a percentage of GDP, health expenditure continues to rise.



Changes in the price of health services, and the volume of services used contribute to health care expenditure growth¹. Considerable efforts have been made in recent years to rein in health care costs by seeking efficiencies in health care delivery, managing the prices of some health care services (particularly hospital services) and seeking to manage health care demand through the use of co-payments and other means.

The Australian Institute of Health and Welfare (AIHW) (2014c) reports that health inflation has been lower than general inflation in at least half of the decade to 2012-13. Excess health inflation across the period was around zero².

With health inflation well managed over the last decade, the type and volume of services used have been the biggest contributors to expenditure growth in Australia in recent years.

Technological change is the pre-eminent driver of volume growth, and in many ways this needs to be encouraged, provided patient outcomes are improved. CAT and MRI scanners, for example, have allowed clear, non-invasive imaging of body systems and have revolutionised diagnosis. The downside is that technology use can spread beyond where it is most valuable and replace existing, often less costly, methods.

Community expectations also drive demand for health services. Consumption of health care increases with income. As per capita income and the capacity to pay more for health care rises, so does demand.

Supply side issues are equally important, as they determine what services are available. Labour is a major component of health expense. A growing

¹ Healthcare expenditure is expenditure on health goods and services, such as medications, health aids and appliances, hospital, dental and medical services; public health activities and other activities that support health systems, such as research and administration. It includes relevant capital expenditure, encompasses both preventative healthcare and curative care, but excludes non-health personal care / attendant care associated with aged and disability care.

² Health inflation is the change in the total health price index. Excess health inflation is the amount by which health inflation exceeds general inflation (the average rate of change in prices throughout the economy, not just consumer prices). Box 2.1 of Health Expenditure Australia 2012-13 (AIHW 2014c) contains a full explanation of health and other inflation measures.

1. Why is health care expenditure increasing? CONTINUED

workforce is needed to meet health demand, but health professionals also create demand for the services they provide.

Ageing is an inexorable cost driver. Population ageing has been a relatively small contributor to the increase in health spending in the past – only 0.5% p.a. in OECD countries excluding the US (compared with 3.2% a year from other factors) according to research by the Economist Intelligence Unit (2012). However, the impact of ageing will become more significant in the future, a topic explored in detail by the Productivity Commission (2006).

Although ageing has not been the most significant factor influencing the growth in health spending, it is the most predictable factor which will influence future spending. More importantly, as we consider in the next sections, it is a key factor that affects our ability to fund health care. Ageing and demographic change are therefore the focus of this paper.



Population ageing: a funding challenge for future generations?

Despite radical reforms in other sectors, little has changed in health care funding

Our population is predicted to live significantly longer and forecasts indicate that spending on health care across all levels of government will grow over four percentage points of GDP over the next 50 years.



In other sectors, governments have acted decisively to try to 'future-proof' some of the future costs to government of ageing. Examples include compulsory superannuation in the 1990s and the more recent overhaul of aged care funding.

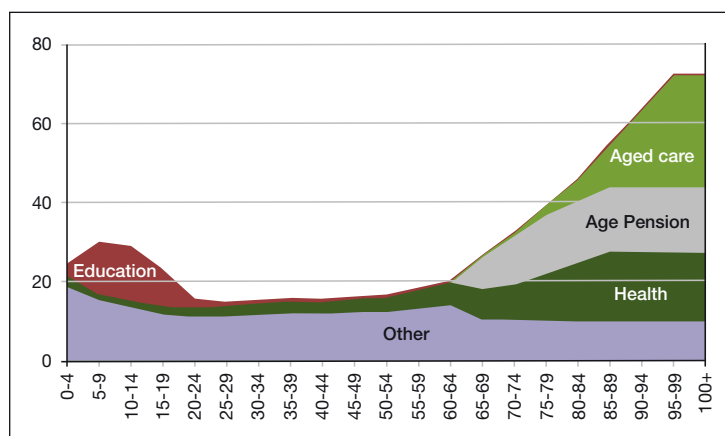
These changes have sought to clarify where government's role finishes and personal responsibility starts, while clearly addressing future funding needs. It means putting aside money for the future in the case of superannuation. In the case of residential aged care, it means ensuring wealth can be tapped into, to cover the costs of aged care accommodation.

Health care remains almost entirely funded on a pay-as-you-go basis, and largely through general taxation. Pre-funding of future health care is virtually non-existent.

This lack of 'future-proofing' is evident in recent forecasts by the Productivity Commission (2013), which indicate that spending on health care across all levels of government will grow over four percentage points of GDP over the next 50 years, from 6.5% to 10.8% of GDP. This is by far the most significant change in government expenditure in the coming decades. Health care, already the single biggest item in governments' budgets, will take a much larger share in future.

Figure 2:
Age-related
government spending,
all governments,
2011-12 (\$'000 per
capita)

Source: Productivity
Commission (2013) >



It is not just governments that need to worry about the cost of health care. At all ages, a considerable share of health care costs are borne directly by individuals, through out-of-pocket costs and private health insurance.

2. Population ageing: a funding challenge for future generations? CONTINUED

Figure 3:
Projection of Government
spending by category,
% of GDP, 2011-12 and
2059-60

Source: Productivity
Commission (2013)>

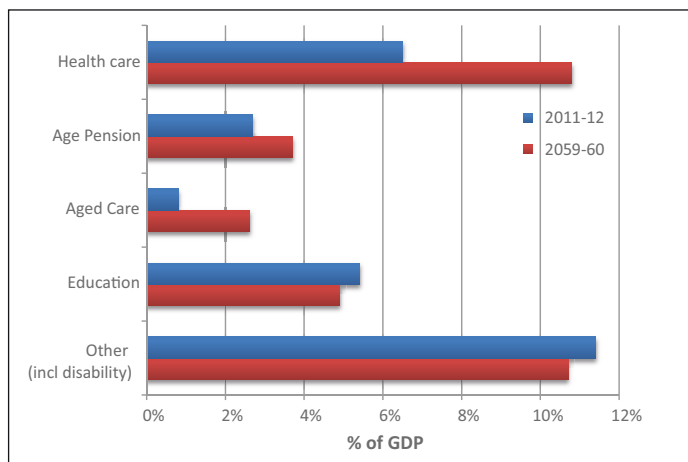


Figure 4 shows this Green Paper's analysis of per capita health expenditure by age and source of funding. While government is the predominant funder of health care in older ages, those over 65 are averaging more than \$2,250 in out-of-pocket payments each year, in addition to paying for private health insurance.

Figure 4:
Estimated expenditure
per capita by age group
& source, 2013

Source: The Treasury IGR 2010,
AIHW Health Expenditure
Australia 2012-13, This Green
Paper's analysis >

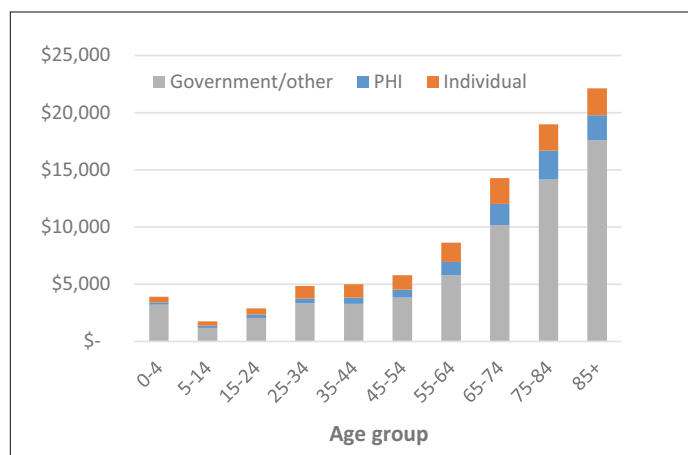
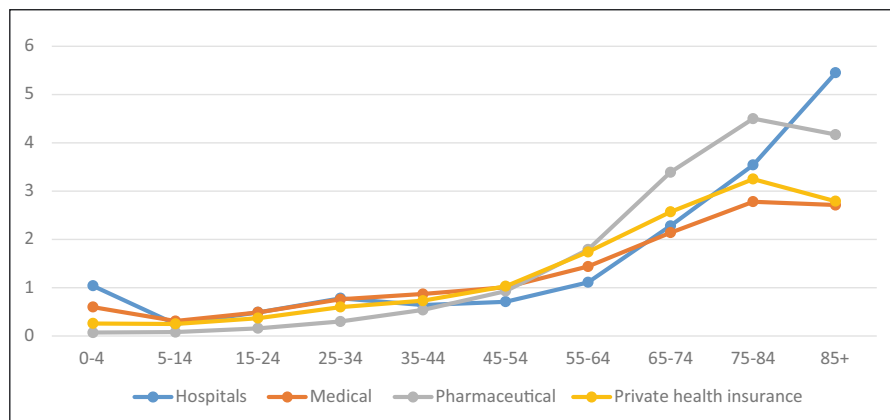


Figure 5 shows the indices of relative health expenditure by age used in the Commonwealth Treasury's 2010 Intergenerational Report, illustrating the rise with age in all areas of health expenditure.

Figure 5:
Index of relative
expenditure on
health care, 2008

Source: The Treasury IGR
2010 >



2. Population ageing: a funding challenge for future generations? CONTINUED

Health care costs may be growing more quickly in older age groups

Across all types of health sector services – private hospitals, medical services, pharmaceutical services and, most significantly, public hospital services, health care expenditure is higher at older ages. Furthermore, it appears that per capita health expenditure is growing faster in the older age groups, which will exacerbate the health expenditure effects of population ageing.

Detailed estimates of health expenditure by age are not reported in the annual AIHW Health Expenditure reports. Hospital separations and Medicare benefits were examined instead. These suggest that more and more investment in health care is being directed toward older age groups.

Hospital services, which comprise around 38% of total health care costs, and Medicare benefits, which represent around 12% of total health expenditure, have grown more rapidly in older age groups (Figures 6 to Figure 9). Increasing life expectancy has the potential to magnify the effect even further.

Figure 6:
Hospital separations
per capita in each
age group, 2007-08
and 2012-13

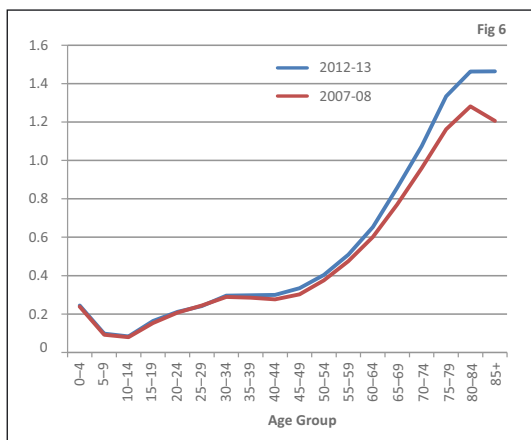
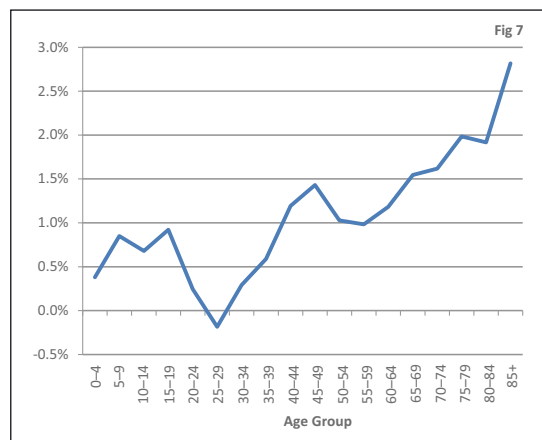


Figure 7:
Annual change
in Hospital
separations per
capita, 2007-08
to 2012-13



Figs. 6-7 Source: AIHW
Hospital Statistics 2012-
13 and 2007-08

Figure 8:
Medicare benefits
per capita in each
age group, 2007-08
and 2013-14

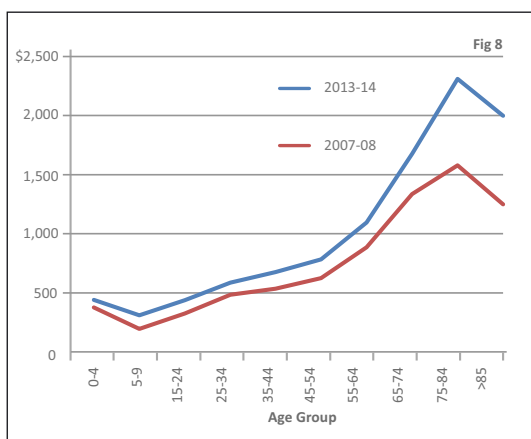
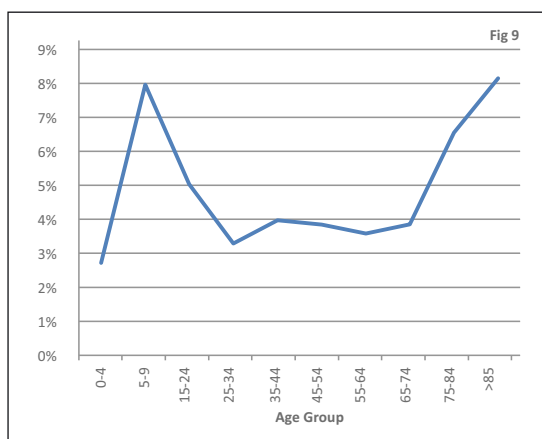


Figure 9:
Annual change in
Medicare benefits
per capita, 2007-08
to 2013-14



Figs. 8-9 Source:
Medicare Statistics
2013-14 and 2007-08

2. Population ageing: a funding challenge for future generations?

CONTINUED



Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health, leading to reduced life expectancy and/or increased health problems. In Western countries, people are considered obese when their body mass index, a measurement obtained by dividing a person's weight by the square of the person's height, exceeds 30 kg/m, with the range 25-30 kg/m defined as overweight.

Figure 10:
% of persons who were obese, 1995 to 2011-12

Source: ABS Australian Health Survey, 2011-13, ABS National Health Survey 2007-08, & 1995 >

³ Burden of disease is measured in disability-adjusted life years (DALYs), which are the number of years lost due to ill health, disability or early death.

Behavioural risks – like poor diet and obesity – are getting worse

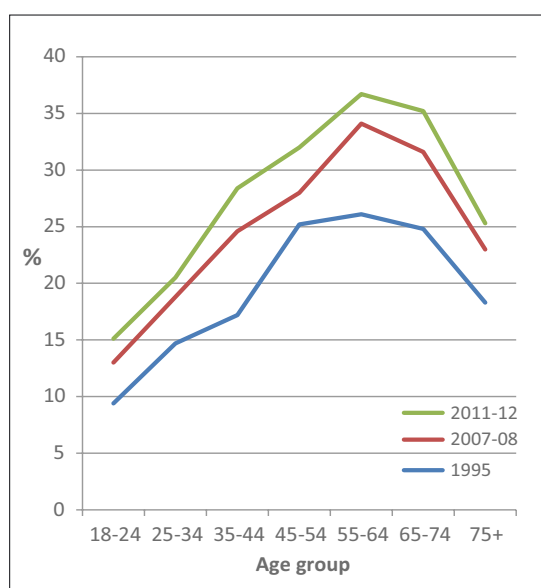
The growth in chronic diseases like cardiovascular diseases, cancers, chronic obstructive pulmonary disease (COPD) and diabetes, and the emergence of a growing number of older people experiencing multiple chronic diseases may explain why health expenditure is increasing more rapidly at older ages.

Currently, 9 in 10 deaths have chronic disease as an underlying cause (AIHW 2014a), and chronic diseases also cause the greatest burden of disease³. The Institute for Health Metrics and Evaluation's Global Burden of Disease study (IHME 2013) found that in Australia and New Zealand, chronic diseases together caused 85% of the total burden of disease.

Initial results from the Global Burden of Disease study highlighted that dietary risks, a high body mass index (BMI) and smoking were the three most important risk factors contributing to the burden of disease in Australia (IHME 2013).

Smoking rates, which account for 8% of the total burden, have declined dramatically in Australia over several decades. However, there is evidence that two important risk factors, dietary risks (11% of the total burden) and high BMI (9%), are continuing to rise.

Successive health surveys in Australia have shown that Australians' intake of fruit and vegetables is well below that recommended by the National Health and Medical Research Council (NHMRC) Nutrition Guidelines, and in 2011-12, just 49% of adults were eating enough fruit for optimum nutrition, while 92% of adults were not eating enough vegetables. According to the ABS Australian Health Survey 2011-13, nearly two-thirds of Australians aged 18 or over are now overweight or obese, compared with about 56% in 1995. The deterioration is continuing, and apparent across all ages. Figure 10



shows the rise in obesity since 1995. The direct cost of obesity has been estimated at \$14.5 billion per year (Colagiuri et al 2010).

The deterioration in lifestyle risk indicators and the rise in chronic disease are likely to lift per capita health care costs at younger ages, so it is not just ageing that is the concern. Whatever the source of rising expenditure, the ability to fund it in the future needs to be addressed.

⁴ Excludes the value of government PHI rebates, which are included in government funding.

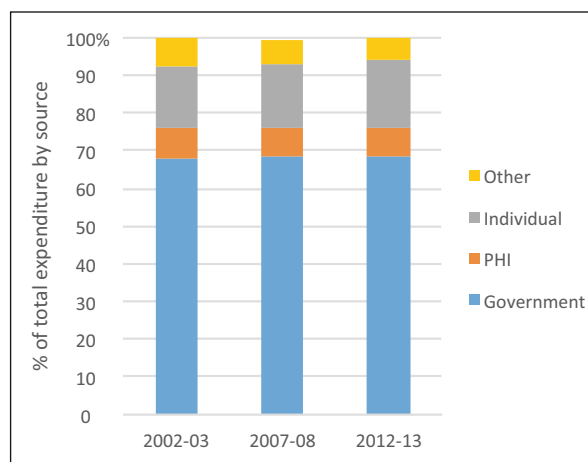
Figure 11:
Source of Funds, % of
Total Health Expenditure,
Australia 2002-03 to
2012-13

Source: AIHW Health Expenditure
2012-13 >

Almost all health is funded with a pay-as-you-go approach

In 2012-13 (the latest figures available from the AIHW), 68% of health expenditure was funded by governments. Some 18% was funded by individuals through out-of-pocket payments, a further 8%⁴ by private health insurers and 6% by other sources, mainly injury compensation insurers like workers' compensation and motor injury insurers.

This split between the different funders has remained largely unchanged over the past decade, albeit with a small shift from the Australian Government to state and territory governments.



Working age people bear most of the cost of health care, despite using a relatively small share of health services

To understand who pays for healthcare, who uses it, and how this balance might change as a result of future demographic change, health care expenditure and funding patterns by age group were analysed and compared. To take account of the economic inactivity of children, the comparative analysis included age groups using households, rather than individuals as the unit of analysis.

Our modelling approach

The 2010 Intergenerational Report indices of relative health care expenditure by age (shown in Figure 5), were combined with the AIHW's estimates of health expenditure by area and source of funds for 2012-13. Where the age-based relativities could be updated, we did so – this was the case for Medicare and private health insurance spending. New components were added for non-government expenditure, using private health insurance data for private hospitals, dental care and other extras treatments, and out-of-pocket health expenditure from the 2009-10 ABS Household Expenditure Survey were estimated. Health expenditure was then allocated to households, using information about the composition of households from the ABS Household Income and Income Distribution survey 2011-12.

3. Who pays for health care? CONTINUED



To estimate the relative funding that households of different ages contribute to government health care, taxation data was analysed. Household income tax and GST by age of reference was used as a proxy (GST was estimated from household consumption). While there are many other sources of government revenue, income tax and GST make up half of total revenue and are the least ambiguous to allocate by age. Individual out-of-pocket funding is, by definition, the same as out-of-pocket expenditure. PHI funding is based on the PHI premiums paid by households of different ages. Although PHI is community-rated (i.e. in each state, policyholders pay the same price for the same product) product choice accounts for the differing levels of PHI 'funding' in households of different ages.

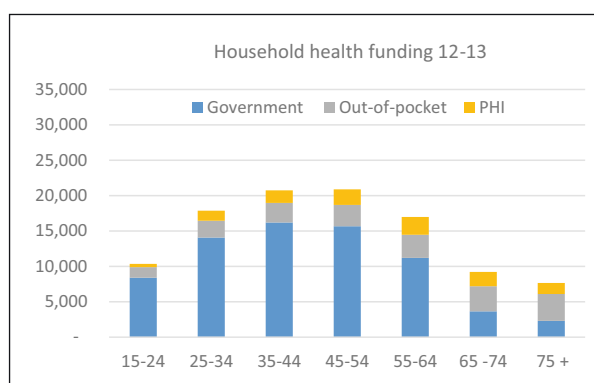
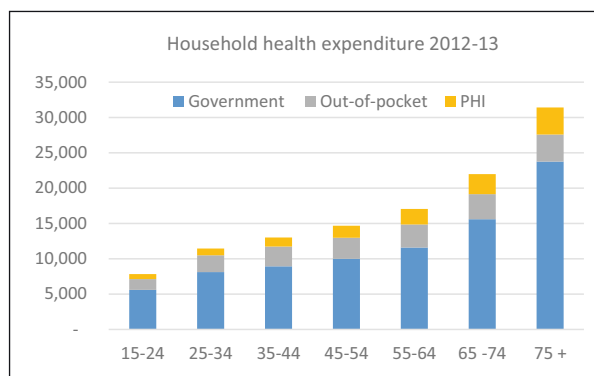
The results are shown in Figure 12. The first chart shows the breakdown of health expenditure by source: government, individual out-of-pocket and PHI claims. The second chart shows the contribution that households make towards overall health funding, by source, as described above.

The results show that:

Out-of-pocket expenditure on health care can be considerable, particularly at older ages. Data from the Household Expenditure Survey indicates that in older households (65+), out-of-pocket spending per person on medical and health care expenditure is over \$2,250 per year, compared with under \$1,000 a year for those under 55.

Figures 12a+b:
Estimated health
expenditure and
contribution to health
financing per household
2012-13 by reference age
of householder

Source: This Green Paper's
analysis >



3. Who pays for health care? CONTINUED

⁵ The Association of Superannuation Funds of Australia

This spending comes from income. Whether future superannuation savings can fund growing health care costs has not been tested, but evidence from the superannuation sector suggests this will be a stretch for many.

The ASFA⁵ Retirement Standard estimates the annual budget needed by Australians to fund either a 'modest' or 'comfortable' standard of living in retirement. The 'modest' standard of living includes an allowance of \$2,100 for health care expenditure each year, below the \$2,250 the over 65s are paying in out of pocket expenditure, and well below the \$2,900 once average private health insurance premiums are added in.

Research by ASFA (2011) demonstrated that the average superannuation payout of retirees in 2009-10 was \$192,000 for men and \$113,000 for women, not adequate to provide a 'modest' lifestyle for retirees without the benefit of an age pension. While superannuation balances are projected to increase, few will move beyond 'modest' to a 'comfortable' lifestyle.

The mismatch between government funding and expenditure is significant.

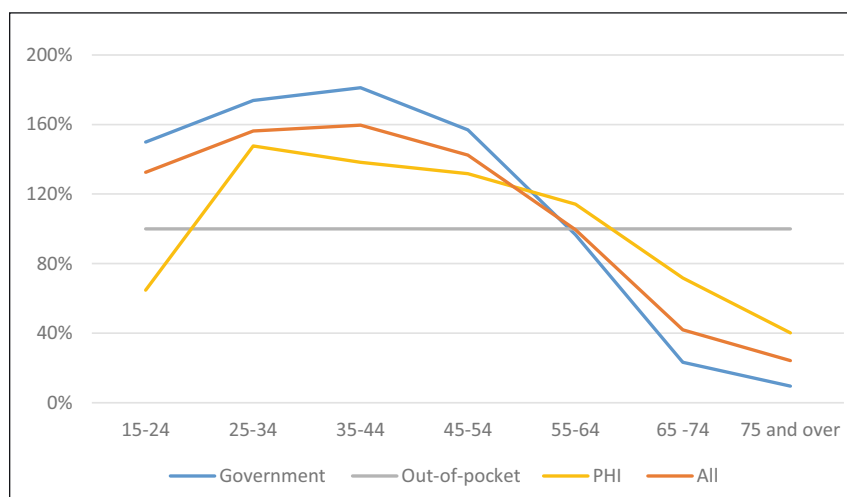
Working age households are contributing, through taxation, on average more than 1.5 times the government-funded health care they receive (over 1.8 times in some age groups) and effectively cross-subsidising government health care costs of those aged 65 and over ('Government' line in Figure 13).

Households with a reference age over 75 meet 10% of their government-funded health care costs through tax contributions, and just 25% of all their health care costs when other sources of expenditure and funding are considered.

This intergenerational cross-subsidy would be sustainable in a stable population distribution, but the demographic shape of the population will change dramatically over the next 30 years.

Figure 13:
Ratio of household
funding to expenditure on
health, by source 2012-13

Source: This Green Paper's
analysis >



What does this mean for future generations?

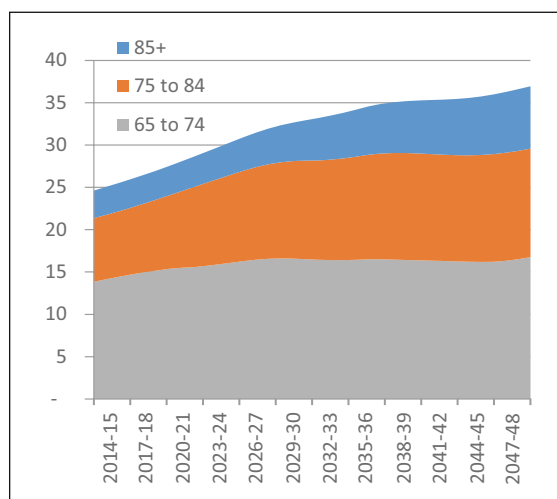
Working age people will be supporting the health care costs of more and more older people

There has always been a subsidy from working age households to retired households, and this is expected in our society. When the proportion of non-working to working people is stable, and the cross-subsidy is sustainable, this is not an issue. What is notable about the demographic shift that Australia is expected to experience over the next 40 years is the extent of the intergenerational cross-subsidy that will result from population ageing and demographic change.

Consider 100 working age people now and in 2049-50. Right now, for every 100 working age people there are **ten people aged 75+, of whom three are aged 85+**. By 2049-50, for every 100 working age people there will be **20 people aged 75+, of whom seven will be aged 85+** (Figure 14).

Figure 14:
Number of older persons per 100 working age persons, 2014-15 to 2049-50

Source: ABS Cat No. 3222.0
Population Projections,
Series B >



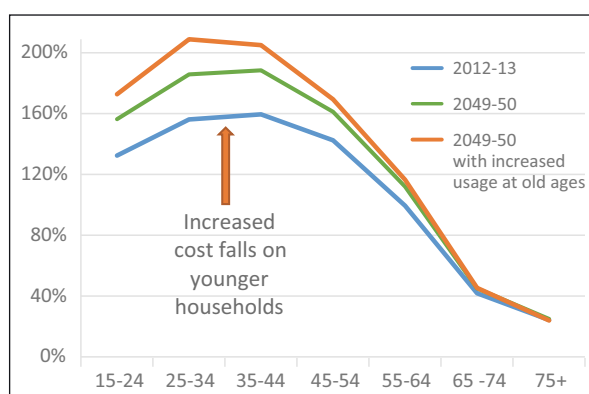
The substantial change in the 'dependency ratio' raises serious questions about who will pay for future health care costs.

Using the analysis described in the previous section, and assuming that the patterns of health expenditure and funding by household remain the same as in 2012-13, this Green Paper has projected how the ratio of funding

to expenditure of different age cohorts might change as the population ages. By definition, this analysis ignores the effect of health inflation and the impact of chronic disease and other factors. One projection assumes no change in the use of health services by age, and another allows for moderate increases in health service use by age – 0.2% a year at age 0-4, rising to 1% a year at age 85+ (well below the levels seen in recent years). The results are shown in Figure 15.

Figure 15:
Ratio of household funding to expenditure on health, by source 2012-13 and 2049-50

Source: This Green Paper's analysis >



4. What does this mean for future generations? CONTINUED

Projecting forward, the working age population might be paying 1.6 times the cost of their own health care expenditure (compared to 1.4 times now) in order to fund the health care costs of the increasing proportion of older age groups.

If per capita expenditure at older ages continues to grow more quickly, this will exacerbate the results. Medicare expenditure and hospital separations per capita have been growing 8% and 3% respectively faster per annum in the over 85s, compared with younger ages. If this extra growth were to continue at just 1% a year for the over 85s, the funding cost shifts even further, with younger ages funding 1.8 times their own health consumption (and up to 2.1 times in some age groups). Translating this change into income terms, this represents an additional 12% of income needed to fund health care for some age groups (through higher PHI contributions, out-of-pocket expenditure and funding government spending). We note that this is not just about the health costs of the older age groups – rises in the volume of services have an effect at all ages. A 2% rather than 1% increase for the over 85s would result in an even greater funding cost with younger ages funding 1.9 times their own health care costs.

The perceived value of private health insurance will likely change

For private health insurance (PHI), younger households might pay more than 1.5 times the cost of their own PHI, in order to fund older age groups (up from 1.3 times currently). Will this change people's choices to insure? There are various financial incentives that exist to encourage younger and/or healthier age groups to take out and maintain health insurance, including Lifetime Health Cover and tax penalties for not having hospital cover. The existence of these incentives means that younger people may still make the choice to insure, but the 'sticks' used to encourage PHI uptake may be less palatable to the community if PHI becomes more expensive and less attractive.



4. What does this mean for future generations? CONTINUED

The demographic shift has implications for the average level of premiums too. As the average age of those with private health insurance increases, so too will hospital cover premiums. Because older ages have fewer tax penalties from a failure to hold PHI, it may be the older aged people that choose to drop PHI cover for cost reasons. Although numerous studies show that older people value PHI highly, the coverage level in the over 85s is already lower than average (38% have hospital cover compared with 47% of the population overall). Faced with the difficult choice of whether to continue to purchase insurance coverage, or to rely solely on the public health care system, some will choose the latter.

Older people will need to find ways to fund their out-of-pocket costs

Older age groups incur the highest level of out-of-pocket expenditure on health care, although this represents a lower proportion of their health care costs than in younger age groups.

A comparison of out-of-pocket expenditure to income, shows that the cost of individual health spending is greater for older people. In the 2009-10 ABS Household Expenditure survey, out-of-pocket expenditure on health care represented 4% of household gross income for the oldest age groups against 1% for the youngest households. (Private health insurance premiums represented a further 2.3% of income in the oldest households versus 0.4% for the youngest households). As health care costs grow, so will the need to meet those costs from personal resources, and as discussed above, the ability of older Australians to fund additional expenditure from their superannuation is limited.

This means the changing cost of health expenditure is not just about the inter-generational shift, there are intra-generational factors concerning the ability of older Australians on low incomes to fund their health care needs.



5

How does Australia compare?

Australia is not alone in the need to address the future funding of health care costs. Across the OECD, many countries are seeing rapid ageing, and Australia is roughly in the middle of these changes.

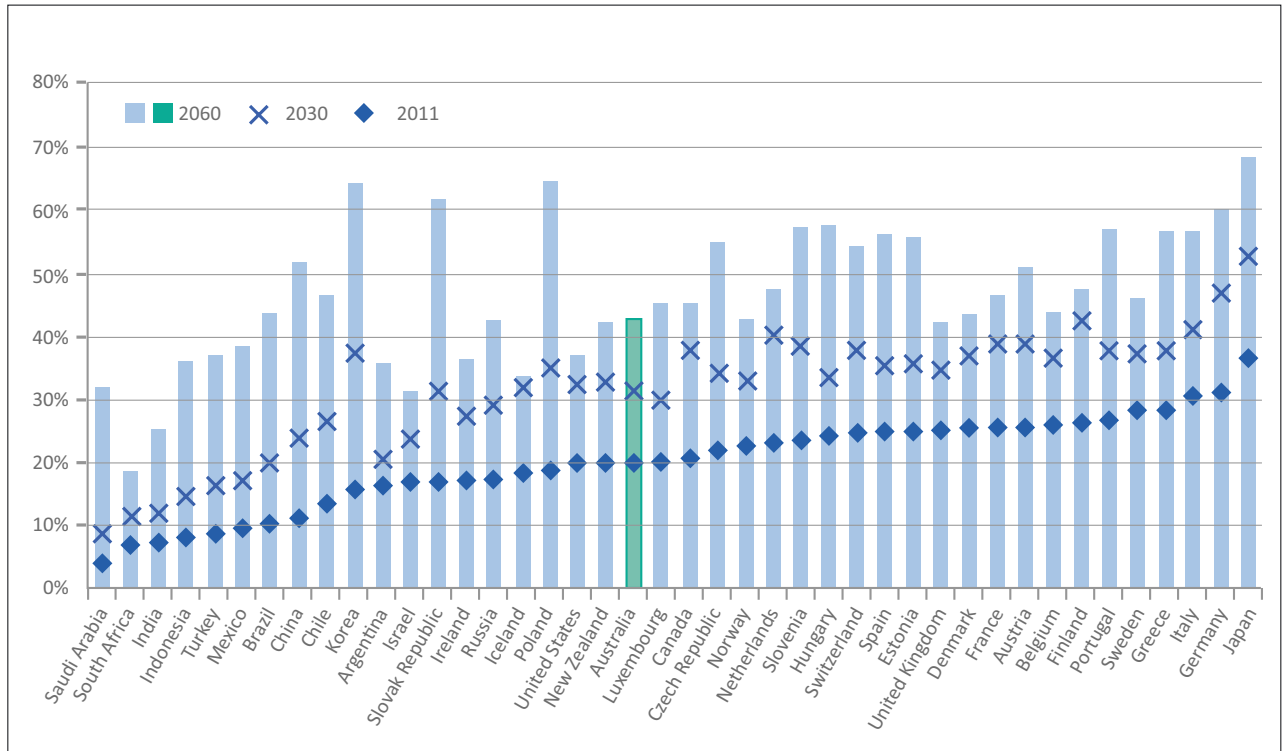


Figure 16:
Old age dependency
ratio: Population aged 65+
as per cent of population
aged 15-64

Source: OECD (2012). Looking to 2060: Long-term global growth prospects, OECD Economic Policy Paper No. 03

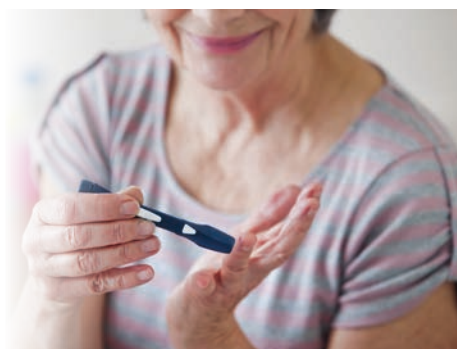
Despite being one of the 'younger' countries, per capita health expenditure in Australia is higher than average.

Australia's health care expenditure is comparable to many countries in the OECD and indeed, on a range of health delivery measures, we are roughly in the middle of our OECD comparators. But does that mean our health system is performing well?

Comparisons of health care systems are notoriously difficult, with many factors influencing health costs and outcomes. The OECD's regular series of statistics comparing health systems (OECD 2014a) provides some useful information for 2012, although some degree of caution is needed in making comparisons. High-level analysis shows that:

- In terms of health expenditure per capita, Australia was **above average**, ranking twelfth of 34 countries. However, in terms of ageing, Australia is **below average**, ranking 24th in terms of the proportion of the population aged 80+. In other words, we are spending more per capita on health care than might be expected, given our relatively young population. Indeed, of the 22 countries that are relatively older than Australia, 12 spend less per capita than Australia on health.

5. How does Australia compare? CONTINUED



Source: OECD Health Statistics: Key Indicators, 2014 (OECD 2014a) >

- ▶ There's no clear evidence that extra spending is translating into better health outcomes. Indeed, several countries have been able to achieve higher life expectancies than Australia with lower health care spending per capita (Italy, Spain, Iceland and Japan).
- ▶ The growth in per capita health spending Australia experienced in the decade to 2012 was slower than average (third quartile) but we have also been ageing considerably slower than most countries. Between 2002 and 2012, the percentage of the population aged over 80 increased by just 0.5%, from 3.3% to 3.8%, compared to Japan (2.6% increase), Greece (1.9%), France (1.4%) and Germany (1.3%).

Table 1: Health expenditure per capita and Population 80+, Australia and OECD, 2012

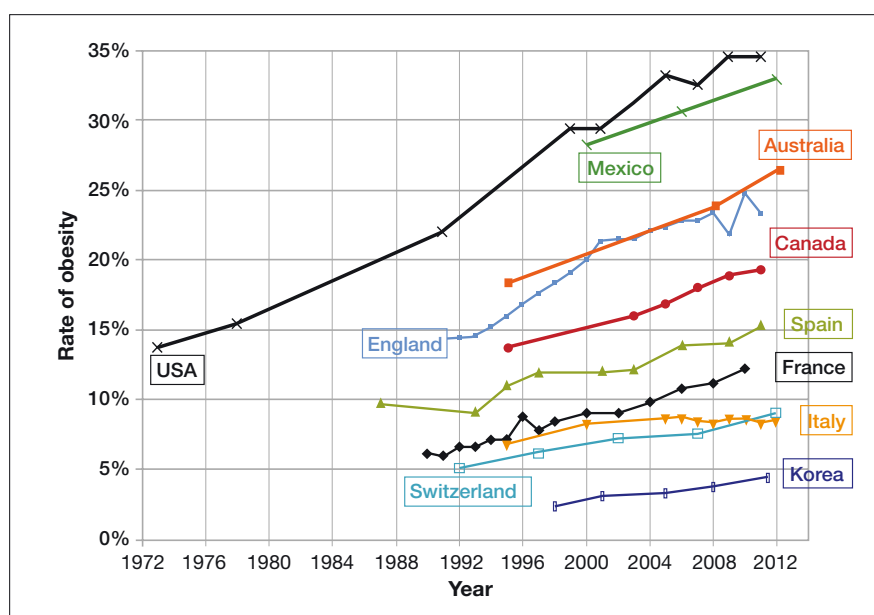
	In 2012		Change – 2002 to 2012	
	Australia	Ranking	Australia	Ranking
% of population aged 80+	3.8%	24 3rd quartile	0.5%	26 4th quartile
Health expenditure per capita, \$US PPP	\$4,196	12 2nd quartile	5% p.a.	20 3rd quartile

Risk factors like obesity are a worrying sign for Australia.

Relative to other OECD countries, we rank high on several risk factors, which will lead to significant health pressures through chronic disease as people age. Australia ranked fifth (behind USA, Mexico, NZ and Hungary) in the OECD in terms of obesity rates, well above the OECD average (OECD 2014b). These behaviours, if left unchanged, will lead to high rates of chronic disease such as diabetes and cancer. Figure 17 shows obesity rates for selected countries only, with clear evidence of ongoing increases for Australia.

Figure 17:
Age/gender adjusted obesity rates (2005 OECD standard population), Selected countries OECD, 1972-2012.

Source: OECD Obesity Update June 2014 (OECD 2014b) >



How can we tackle the challenge?

In *Australia's Health 2014*, the AIHW proposed three important 'expenditure' side measures to help contain future health care costs: promoting good health across the lifespan; enabling healthy ageing; and enhancing productivity in health-care delivery.

But is this enough? Even with good management of future health care expenditure, attention must turn to long-term financing solutions to meet future health care costs. Given the predominance of public funding in the mix, attention must focus on how public finance can respond to population ageing. If ignored, it is younger people who will increasingly need to pay for the growing health expenditure for older Australians, through successive tax increases. The alternative is that we may face difficult choices about what health care we fund and for whom and the consequent social, equity and welfare issues that arise.

In this section, some of the financing solutions being used in other sectors in Australia and in other countries to tackle this long-term challenge are explored.

Working Longer

Enabling people to work longer improves health status and boosts personal savings and will be a critical part of meeting future health care costs. Both government and businesses need to support workers to stay in the workforce.



Working longer can support the financing of health care costs, both through additional tax contributions and through the contribution of a longer working life to superannuation balances and other household savings. Deloitte (2012) estimates that even a relatively small increase in mature age participation from 6 to 6.5 in 10 will boost the economy by a projected \$48 billion in 2050 and increase retirement savings for individuals. There is also evidence that employment has a positive influence on health status, however it is acknowledged that some types of occupation may find it difficult to work longer.

Working longer is already a trend internationally. PwC (2014) estimates that in the mature economies of North America and Europe, one in two people work into their 60s. In the United States one in five people in their 70s have some form of paid work.

What about Australia? The AIHW (2014a) estimates that in 2013, 12% of people aged 65 and over were in the labour force. Australia still has some catching up to reach North American and European participation rates, but it appears that the trend to working longer is already underway. In 2003, just 6% of the over 65s were working and among people aged 65–69, the proportion of women in the labour force was 2.3 times as high in 2013 (20%) as in 2003 (8.5%), and 1.7 times as high for men (33% and 20% respectively).

6. How can we tackle the challenge? CONTINUED

The effect of working longer on future 'dependency ratios' depends on the age to which people work. In 2049-50, there would be 19, rather than 20, people aged 75+ for every 100 working age people, if working age is extended from age 65 to 70. But, if we can extend the age at which health costs start to really climb by two years – from age 75 to age 77 – then the ratio drops from 20 to 16. Increasing retirement savings and reducing age pension payments would also take pressure off governments, allowing them to support further health care costs.

This change will need to be supported by government and businesses. The Actuaries Institute (2012) argued for several financial measures to support extended working including: removing age limits on superannuation contributions; encouraging workforce participation by changing the age pension means test; and offering an increased age pension for people who continue to work past the eligibility age. PwC (2014) argues that businesses may need to redesign jobs, tools and practices to accommodate older workers, and in service industries match the age of their workforce to their customers. The potential benefits are substantial.

Incentivising Individual Savings – Medical Savings Accounts

Medical Savings Accounts are unlikely to make a substantive difference, without being mandated, and it is already too late to use Medical Savings Accounts to fund the health care costs of the baby boomer generation. Unless well designed, they could also widen the 'wealth gap' in access to health services to an unacceptable extent.

Several countries have introduced Medical Savings Accounts to encourage personal saving for future health care costs. In some countries, funds in the medical savings accounts can be used to finance future health expenses and, in the case of Singapore, Germany, Hungary and the US, can also be used to finance future health insurance premiums.

Schemes in Singapore, China and Germany are compulsory and hence similar in many respects to superannuation in Australia, albeit with far more restrictions on the ultimate use of funds. The schemes in Hungary, New Zealand, South Africa and the US are all voluntary. Apart from New Zealand, all offer tax incentives to encourage savings.



6. How can we tackle the challenge? CONTINUED



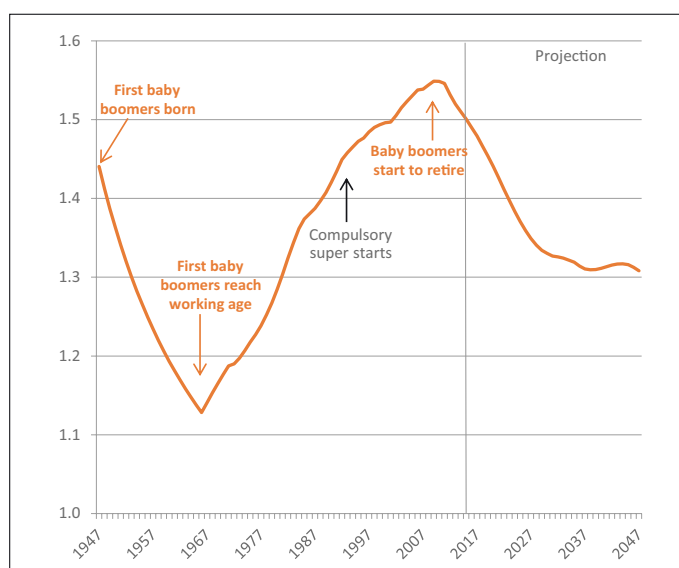
Figure 18:
Ratio of working age
to non-working age
population 1947 to 2047

Source: ABS Census data,
Australian Demographic
Statistics 2014 and Population
Projections, Series B >

Table 2: Features of Medical Savings Accounts in selected countries

	Compulsory	Tax incentives	Can fund private health insurance premiums	Can fund direct health care costs
China	✓	✓		✓
Singapore	✓	✓	✓	✓
Germany	✓	✓	✓	
Hungary		✓	✓	✓
South Africa		✓		✓
US		✓	✓	✓
New Zealand				✓

Could this work in Australia? Voluntary medical savings accounts might seem appealing, but experience in other countries suggests voluntary accounts have not been particularly popular. In the US, recent data (AHIP 2012) showed that uptake of medical savings accounts has been relatively low, despite significant tax incentives, and most contributions – perhaps 50% to 75% – are being withdrawn each year to pay for the current year's medical expenses. In other words – they provide minimal 'future-proofing'.



Considering the compulsory approach, one option would be to further increase compulsory contributions to superannuation in order to part-fund future health care costs or future private health insurance premiums. While Australian employers contribute 9.5% of salaries to superannuation, Singaporean employees and employers contribute a total of 36% of salaries to a Central Provident Fund to finance retirement, health care, home ownership and post-secondary education. Of this up to 16% of salaries go to an individual *Medisave* account – a substantial contribution.

Both voluntary and compulsory savings options mean more tax incentives for saving – a difficult sell. Indeed, the current Government has proposed to defer planned increases in the superannuation contribution rate by three years.

6. How can we tackle the challenge? CONTINUED



Is it too late?

It may be too late if we want to pre-fund some of the more significant generational health care costs looming on the horizon. The first of the baby boomer generation (born 1946 to 1964) reached aged 65 in 2011 and the ratio of working age population (20-65) to non-working age has declined from its peak since then.

Compulsory superannuation, launched in 1992, has harnessed the savings of the baby boomers for the past 20 years, but with most retiring over the coming decade, it will be too late for many for a Medical Savings Account to grow to any meaningful size.

Indeed, if Australia is to consider mandating that the current working population save to meet their own future health care needs, further work would be needed to understand the implications of asking the current generation to pre-fund part of its own health care needs, while at the same time meeting the unfunded and rising health care costs of the baby boom generation over the coming decades.

Equity and incentives to save

A sovereign wealth fund is worth considering when Australia returns to government budget surpluses, but that could be some way off.

Medical Savings Accounts introduce another fundamental question – equity. The Productivity Commission (2011) estimates that the top 25% of baby boomers own 60% of the boomers' household wealth, while the bottom 25% own just 4%. Average personal wealth of the top 25% of baby boomers is some 13 times that of the bottom 25%. Further incentives to save are likely to widen the gap between wealthier and less wealthy households and could create undesirable differences in access to health care.

Boosting national savings – Sovereign Wealth Funds

Can we grow savings while maintaining equitable access to healthcare?

Sovereign wealth funds are one way governments can boost savings to benefit all, creating national rather than individual savings pools.

Singapore's *Medifund* provides one example. For those with inadequate *Medisave* accounts, *Medifund* ensures that no Singaporean is denied good basic care because of inability to pay. *Medifund* was established in 1993 to subsidise health care for the poor (roughly 10% of the population) on a means-tested basis. It draws on the interest of an initial capital injection of US\$150 million and contributions to the fund during years of overall budget surplus.

6. How can we tackle the challenge? CONTINUED

Other sovereign wealth funds have been created by resource rich countries, as a way to stabilise economies and allow future generations to benefit from current resources. Examples include:

- ▶ the Kuwait Investment Authority, established in 1953 from oil revenues;
- ▶ the Revenue Equalization Reserve Fund of Kiribati, created in 1956 from levies on phosphate fertiliser exports;
- ▶ the Government Pension Fund of Norway, established in 1990, again from oil revenues.

What about Australia? Australia's Future Fund is similar but with a narrower remit than many other schemes. Established in 2006, its purpose is to make provision for government's unfunded superannuation liabilities. In theory, a 'Health Future Fund' could do the same to balance the pressures of future health care spending.

The challenge of course is how to finance such a fund. The Future Fund tends to be financed in times of government budget surplus and, following several years of budget deficits, the value of the Future Fund remains well below the superannuation liability it is intended to offset. That leaves little room to start financing a 'Health Future Fund'.

Pre-funding future private health insurance increases

Pre-funding future health insurance premium increases would have only a modest impact on health financing and may introduce a significant amount of additional administration for little gain.

As noted earlier, private health insurance premiums will rise faster than inflation, as the average age of those insured increases. Could this predictable increase be pre-funded?

Germany has tackled this challenge head on by establishing 'ageing reserves'. German private health insurance is purchased as a 'substitute' for cover under the Government's health insurance system. While the German Government system is effectively a social tax, and hence community-rated, private health insurance is not, and premiums rise significantly with age. A key challenge for the German Government is that once a person has opted out of the government system, they cannot opt back in as they would move from an age-based premium to a lifetime community-rated premium. Therefore it's critical that private health insurance premiums remain affordable in the private system as people age.

Since 2001, rather than community rating premiums, insurers in Germany have been required to charge policyholders 10% more to build up an



6. How can we tackle the challenge? CONTINUED

'ageing reserve' to cover the cost of future premium increases. Ageing reserves are collected from insureds while young and then set aside and used to minimise the increase in premiums as the insured ages and requires greater levels of health care.

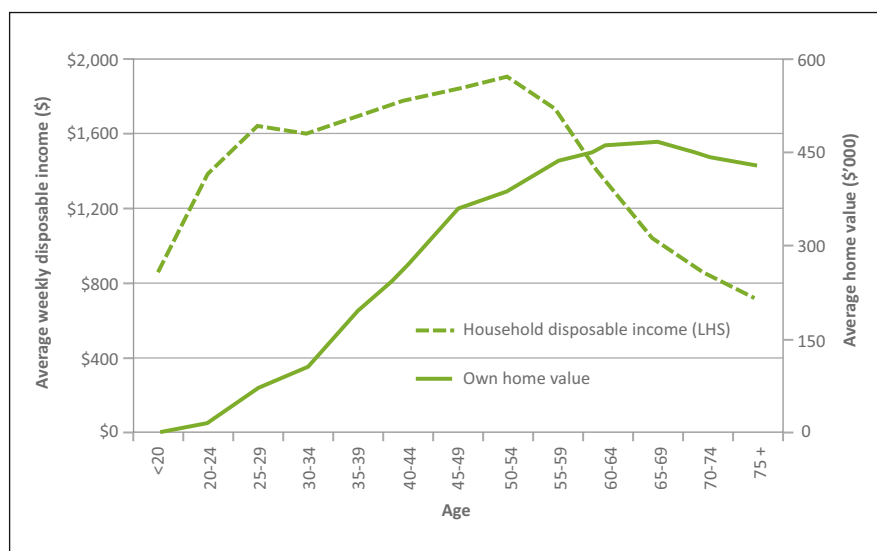
Could this work in Australia? The German ageing reserves explicitly pre-fund ageing's share of future health insurance premium increases. But which costs should be pre-funded in the Australian PHI system? An older average age for policyholders will bring about a relatively modest increase in future private health insurance premiums – around four percent for each year of increase in average age - because community rating keeps premium increases in check. Younger policyholders could pay a little more now, to offset this ageing cost. This extra cost probably wouldn't deter people from private health insurance – indeed, private health insurance membership has remained resilient despite numerous changes in government incentives. However, administering ageing reserves could be cumbersome and the extra costs to administer such a small reserve are unlikely to be worth the benefit.

Of course, a greater share of future premiums could be pre-funded – for example, pre-funding the PHI premiums which would be paid in retirement – but this starts to sound very like a Medical Savings Account, with all the challenges they bring.

Private health insurance is a relatively small part of Australia's health funding – in 2012-13, PHI represented just 8% of total health funding (12% if the Government's contribution via premium rebates is included). The largest effects of ageing are seen in the public health system, where most older people are treated, and the relative spending on older people is so much higher. So all this effort to balance the effects of population ageing on private health insurance would have only a minor effect on overall health system financing.

Figure 19:
Home value and
disposable income,
by age, 2009-10

Source: Productivity
Commission (2014) >



The potential role of wealth

With almost half of household wealth projected to be in the hands of the over 65s by 2030, we may need to find ways to tap into that wealth to fund future health care and aged care costs. The challenge will be to do so in a way which is acceptable to the community, practical and equitable.



The financing challenge goes well beyond what can be done inside the health sector. General tax reform to increase the incidence of tax on older people to pay for health care is one key proposal.

It is our conclusion that tax reform will need to consider tapping into the **wealth**, rather than the incomes of older people. The baby boomers will own the major share of household wealth – the Productivity Commission (2011) estimates that in 2030, 47% of total net household wealth will be owned by the over 65s (up from 22% in 2000), thanks in part to the strong growth in asset values, including residential property.

Further, tax reform will need to be structured in such a way that avoids excessive user charges. The RAND Health Experiment showed that up to a point, user charges help manage service demand, but beyond that can have serious consequences for the health outcomes and mortality of people with low incomes or chronic disease – two characteristics strongly associated with the older population.

Are there ways we can tap into the wealth of older people in order to help fund health care costs and reduce the extent of the funding shift to younger generations?

Major reforms to the funding of aged care, which came into law on 1 July 2014, focus on just this issue. *The Living Longer Living Better* reforms stipulate that self-funded retirees will be responsible for accommodation and personal living costs, and that government will provide for health care costs. They include:

- ▶ A greater focus on keeping people in home for longer and funding in-home care packages
- ▶ A greater emphasis on 'user pays' with increased means testing arrangements, along with fee caps and lifetime limits
- ▶ New accommodation payment arrangements for residential aged care, which will result in residents paying more in most cases.

6. How can we tackle the challenge? CONTINUED

Figure 20:
Aged care fees
payable at
different income/
asset levels

Source: *Living Longer. Living Better.*
Commonwealth of
Australia 2012

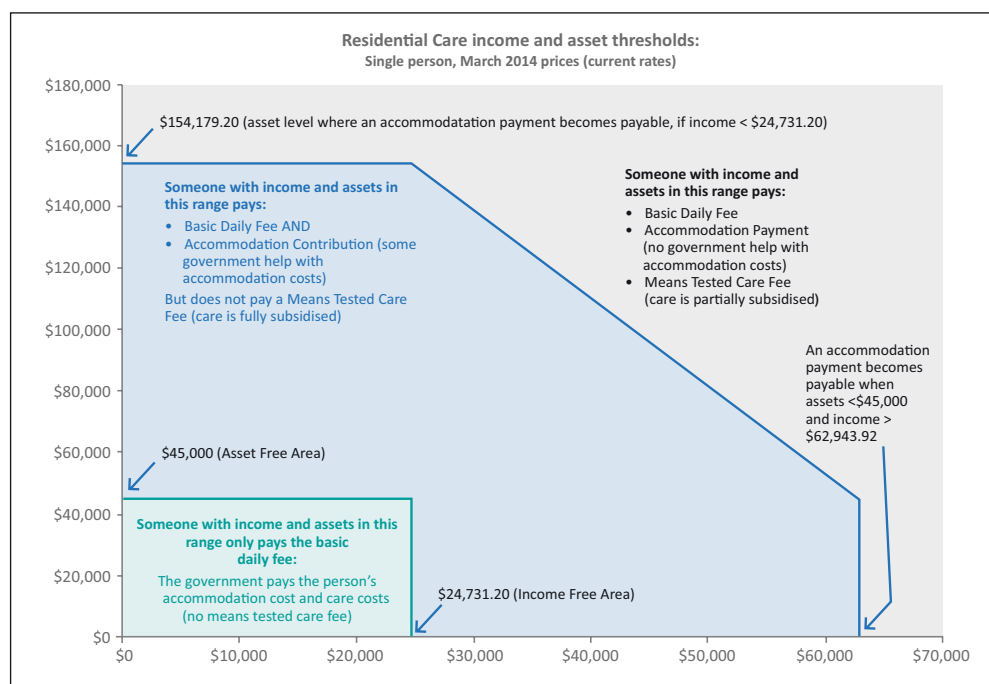


Figure 20 gives an overview of the income and asset thresholds at which various levels of fees apply for a single person moving into an aged care home from 1 July 2014.

Could this work in Health? The sensitive part would be how to do this in a way that is acceptable to the community, practical, and equitable. That may mean taxes and a social welfare approach, rather than driving more individually-funded health care and out-of-pocket costs.

In one sense we moved further away from 'future-proofing' in 2007 when the tax on superannuation benefits post age 60 was removed. Most superannuation benefits are now completely tax-free, shifting the burden of taxes away from older people. At the time, superannuation benefits taxes were relatively small and overly complex, so the change had little effect on the government's budget. But with more people contributing to superannuation for longer, superannuation balances growing, and more people reaching retirement age, the impact of this change could be far-reaching.

Offsetting increases in the Age Pension would also need to be considered – so the net budgetary impact of any superannuation taxes may be far lower. The resultant impact on standards of living would also need to be addressed. For many, superannuation balances will be only just adequate to meet a modest level of personal living costs, and taxing superannuation benefits would decrease disposable income.

Alternative forms of taxing wealth in older ages, through inheritance taxes or similar, haven't been acceptable. A second challenge arises because almost half of the wealth of older people is held in the family home (ABS 2014d, Table 24 and 25). Taxing the family home simply hasn't been an option in Australia. This issue has been raised in numerous submissions to Government reviews i.e. the *Harmer Pension Review* and the *Henry Tax Review*.

A comprehensive policy framework – the way forward

Australia can minimise undesirable differences in access to health care by sensible measures on the demand and supply sides, and by well thought out taxation measures aimed towards financing health expenditures. This requires an urgent community debate, to build the understanding to support sensible reform.

A comprehensive framework

In its recent submission to the Financial System Inquiry, the Actuaries Institute recommended the adoption of a **comprehensive framework for policy formulation on all issues relating to the sustainable financing of our ageing population**. Anticipated demographic changes and the resultant increases in aged care and health costs will adversely affect society's ability to finance a desirable level of health care, unless we establish consistent policies with **agreed long term targets**.

A health care policy framework would involve setting overall targets for financing future health care needs, such as

- ▶ the goals and principles of the health care system;
- ▶ the level of government expenditure on health care which is considered appropriate and sustainable; and
- ▶ how that funding could be split between funding current health care needs, offering incentives for individuals, and pre-funding future health care costs, to optimise health outcomes.

Management using 'insurance principles'

Major changes in policy and funding for disability care introduced through the National Disability Insurance Scheme (NDIS), reflect this comprehensive framework approach. They also go a step further, to **management of the system using so-called 'insurance principles'**. By focusing on defined support need, rather than defined funding, the NDIS requires risk management similar to that faced by insurance companies.

Drawing on these 'insurance principles', the policy and governance frameworks which protect the NDIS from cost escalation include:

- ▶ a heavy focus on data, systems and analysis of both sides of the system – the demand side, represented by disability support needs, and the supply side, represented by services and workforce, and natural and mainstream supports;
- ▶ detailed demographic analysis to project the supply-demand equation into the long-term future at all levels;
- ▶ strong case management, reporting, and independent systems governance, supported by the overarching requirement for 'scheme financial sustainability'; and
- ▶ a focus on evidence-based practice, research and innovation and an 'investment philosophy' which recognises the long-term economic potential of early intervention.



7. A comprehensive policy framework – the way forward CONTINUED

Many of these techniques could well be applied to a more data and analytics driven health system to enhance financial sustainability, with more use of community support, innovation and early intervention.

An open data regime

An open data regime is essential to allow increased access to and analysis of important government-held data and modelling information to better manage macro-level health financing risks.

To achieve such a policy framework and progress toward system management based on 'insurance principles' requires considerable research and analysis to better understand the financing dynamics of the Australian health care system. The creation of an **open data regime** is essential to allow increased access to and analysis of important government-held data and modelling information to better manage macro-level health financing risks.

The research undertaken for this report revealed a wealth of data for services funded by private health insurance, but 'mixed' results for publicly-funded health care. It simply wasn't possible to use publicly available data to construct an age profile of government health spending, with detailed public hospital data a particular gap – State government approval is still required to access this relatively straightforward data. With public hospitals representing some 30% of health care expenditure, this is a critical gap.

At a more detailed level, researchers have been unable to access linked longitudinal data – linking the range of government funded services to individuals, to better understand the patient journey and individual funding choices. This information simply hasn't been available due to fear of privacy breaches.

Naturally, confidentiality and privacy concerns need to be managed. However, if we are to effectively test new policies, allow room for policy innovation outside of government, and foster constructive public debate, more data must be readily available to researchers, academics, analysts and businesses. An informed community debate is essential. ■



References



References

- ABS (2014) *Taxation Revenue, Australia, 2012-13*, Cat No. 5506.0, Australian Bureau of Statistics, Canberra
- ABS (2013a) *Australian Health Survey, 2011-13*, Cat No. 4364.0, Australian Bureau of Statistics, Canberra
- ABS (2013b), *Household Income and Income Distribution 2011-12*, Cat No. 6523.0, Australian Bureau of Statistics, Canberra
- ABS (2013c) *Population Projections 2012 (base) to 2101, Series B*, Cat No. 3222.0, Australian Bureau of Statistics, Canberra
- ABS (2013d), *Household Wealth and Wealth Distribution, Australia, 2011-12*, Cat No. 6554.0, Australian Bureau of Statistics, Canberra
- ABS (2011) *Household Expenditure Survey 2009-10*, Cat No. 6530.0, Australian Bureau of Statistics, Canberra
- ABS (2009) *National Health Survey 2007-08*, Cat No. 4364.0, Australian Bureau of Statistics, Canberra
- ABS (2006) *National Health Survey 2004-05*, Cat No. 4364.0, Australian Bureau of Statistics, Canberra
- ABS (1997) *National Health Survey 1995*, Cat No. 4364.0, Australian Bureau of Statistics, Canberra
- AHIP. (2012). *Census Shows 13.5 Million People Covered by Health Savings Account/High-Deductible Health Plans (HSA/HDHPs)*. America's Health Insurance Plans Centre for Policy and Research.
- Actuaries Institute (2014) *Submission to the Financial System Inquiry*, 30 March, Actuaries Institute, Sydney
- Actuaries Institute (2012) *Australia's Longevity Tsunami: What should we do?* Actuaries Institute white paper, Sydney
- AIHW (2014a) *Australia's Health 2014*, Australia's health series no. 14. Cat. no. AUS 178, Australian Institute of Health and Welfare, Canberra
- AIHW (2014b) *Australian Hospital Statistics 2012-13*, Health services series no. 54. Cat. no. HSE 145, Australian Institute of Health and Welfare, Canberra
- AIHW (2014c), *Health expenditure Australia 2012-13*, Health and welfare expenditure series no. 52. Cat. no. HWE 61. Canberra: AIHW.
- AIHW (2010), *Health system expenditure on disease and injury in Australia, 2004-05*, Health and welfare expenditure series no. 36. Cat. no. HSE 87, Australian Institute of Health and Welfare, Canberra
- AIHW (2009), *Australian Hospital Statistics 2007-08*, Health services series no. 33. Cat. no. HSE 71, Australian Institute of Health and Welfare, Canberra
- AMP & NATSEM (National Centre for Social and Economic Modelling) (2007). *Baby boomers—doing it for themselves*. Income and Wealth Report. Issue no. 16. March 2007, AMP, Canberra
- ASFA (2011) *Developments in the level and distribution of retirement savings*, ASFA Insight, 26 September 2011, The Association of Superannuation Funds of Australia
- Colagiuri S, Lee CMY, Colagiuri R et al. (2010) *The cost of overweight and obesity in Australia*. Med J Aust 192: 260-64.
- Deloitte (2012) *Increasing participation amongst older workers: The grey army advances*, Deloitte, Sydney
- DSS (2014) *Information Booklet on Fees for Home Care Packages and Residential Aged Care packages for people entering Care from 1 July 2014*. Department of Social Services, Canberra
- The Economist Intelligence Unit (2011), *Future-proofing Western Europe's healthcare: A study of five countries*
- IHME (2013) *GBD Profile: Australia*, Institute of Health Metrics and Evaluation, Seattle, USA. Available at http://www.healthdata.org/sites/default/files/files/country_profiles/GBD/ihme_gbd_country_report_australia.pdf
- OECD (2014a), *OECD Health Statistics 2014*, OECD, Paris
- OECD (2014b), *Obesity Update June 2014*, OECD, Paris
- OECD (2012). *Looking to 2060: Long-term global growth prospects*, OECD Economic Policy Paper No. 03, OECD, Paris
- Private Health Insurance Administration Council (2014), *Annual Coverage Survey December 2013*. PHIAC, Canberra
- Productivity Commission (2013) *An Ageing Australia: Preparing for the Future*, Commission Research Paper Overview, Canberra.
- Productivity Commission (2011) *Inquiry Report Volume 1: Caring for Older Australians*, Canberra
- Productivity Commission (2006), *Economic Implications of an Ageing Australia*, Productivity Commission Technical Papers, Canberra
- PwC (2014) *Finding the gold in the silver economy: How the over 45s will reshape financial services*, PwC Sydney
- The Treasury (2010), *Australia to 2050: future challenges. Intergenerational Report 2010*, Canberra

Contacts



For more information, please contact:

Actuaries Institute

ABN 69 000 423 656

Level 2, 50 Carrington Street, Sydney NSW 2000

t +61 (0) 2 9239 6100

f +61 (0) 2 9233 3446

e actuaries@actuaries.asn.au

w www.actuaries.asn.au

About the Actuaries Institute

As the professional body representing the actuarial profession in Australia, the Actuaries Institute actively contributes to the debate on public policy on behalf of members.

Who Will Fund Our Health?

Published by the Institute of Actuaries of Australia
December 2014

© Institute of Actuaries of Australia 2014
All rights reserved

Actuaries Institute

ABN 69 000 423 656

Level 2, 50 Carrington Street, Sydney NSW Australia 2000

t +61 (0) 2 9239 6100

f +61 (0) 2 9233 3446

e actuaries@actuaries.asn.au

w www.actuaries.asn.au

