



# of health expenditure in Australia

1989-90 to 2013-14

**HEALTH AND WELFARE EXPENDITURE SERIES NO. 56** 



Authoritative information and statistics to promote better health and wellbeing

# HEALTH AND WELFARE EXPENDITURE SERIES Number 56

# 25 years of health expenditure in Australia

1989-90 to 2013-14

Australian Institute of Health and Welfare Canberra

Cat. no. HWE 66

The Australian Institute of Health and Welfare is a major national agency which provides reliable, regular and relevant information and statistics on Australia's health and welfare. The Institute's mission is authoritative information and statistics to promote better health and wellbeing.

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#### **Abbreviations**

AIHW Australian Institute of Health and Welfare

ABS Australian Bureau of Statistics

DoH Australian Government Department of Health

GFC global financial crisis

GDP gross domestic product

GNE gross national expenditure

GP general practitioner

MBS Medicare Benefits Schedule

OECD Organisation for Economic Co-operation and Development

PBS Pharmaceutical Benefits Scheme

PHI private health insurance

PHIAC Private Health Insurance Administration Council

# **Symbols**

.. not applicable

# **Summary**

To better understand the long-term trends in health expenditure in Australia, this report presents data for the 25 years from 1989–90 to 2013–14, describes some of the key trends and explores the relationships between health expenditure and its drivers.

#### A story of growth

Over the 25-year period, health expenditure grew much faster than:

- *inflation* growing from \$50.3 billion in 1989–90 to \$154.6 billion in 2013–14 in real dollars (that is, taking inflation into account)
- *the population* with per person expenditure increasing by 123.5%
- *population ageing* with the ratio of total spending to the size of the population aged 65 and over increasing by 69.0%.

Health expenditure growth occurred in a context of relatively rapid growth in the broader economy – but at a faster pace. Health expenditure increased from 6.5% of gross domestic product (GDP) in 1989–90 to 9.7% of GDP in 2013–14.

Despite this growth in health expenditure relative to the economy, health expenditure did not grow faster than government revenues and the wealth of individuals at all stages in the entire 25-year period.

Over the entire period growth in health expenditure was greater than growth in taxation revenue, but this mostly occurred during periods of relatively slow revenue growth (as during the global financial crisis).

Non-government health expenditure tended to keep pace with growth in individual net worth over the period, but was faster than growth in average incomes.

#### **Drivers of health expenditure**

It is likely that population factors such as population growth and population ageing have had an important influence on the demand for health goods and services. The development of new technologies and community expectations regarding their availability and use also appear to have a large impact on this demand. Increased demand for health goods and services does not automatically translate into increased health expenditure though. The information presented in this report suggests that a combination of factors, including increased wealth and government policies, have determined if, how and when demand for services are met and, ultimately, how much is spent.

#### 1 Introduction

The Australian Institute of Health and Welfare (AIHW) has been reporting on health expenditure since the Institute was established in 1987, with regular annual reports since the 1987–88 reference year. This long history of reporting provides an opportunity to consider how health expenditure has changed and how it has been affected by broader economic, policy and social trends over the past 25 years.

This report uses data from the 1989–90 financial year through to the 2013–14 collection. It looks at how health expenditure has changed over this time.

Special attention is given to periods where economic growth slowed—such as following the global financial crisis (GFC) in 2008–09, and during the recession in the early 1990s—to assess how these periods affected health expenditure.

#### 1.1 About the data

Health expenditure is defined as expenditure on health goods and services, and health-related investment. The definition closely follows the definitions and concepts provided by the Organisation for Economic Co-operation and Development's (OECD's) System of Health Accounts framework (OECD 2000). It excludes:

- expenditure that may have a 'health' outcome but is incurred outside the health sector (such as expenditure on building safer transport systems, aged and disability care and educating health practitioners)
- expenditure on personal activities not directly related to maintaining or improving personal health (such as expenditure incurred playing a sport)
- expenditure that does not have health as the main area of expected benefit (such as expenditure on travel).

Health expenditure occurs at all three levels of government, as well as by non-government entities such as private health insurers and individuals.

In many cases, funds pass through a number of different entities before they are ultimately spent on health services and products, such as hospitals, general practices and pharmaceuticals.

In the case of public hospital care, for example, the states and territories use funds provided from a number of sources, including the Australian Government. The hospitals themselves also receive funds from a number of sources before ultimately spending this money on accommodation, medical and surgical supplies, drugs, salaries of doctors and nurses, and so forth.

The term 'health expenditure' in this context relates to all funds given to, or for, providers of health goods and services and it includes the funds provided by the Australian Government to states and territories as well as the funds provided by the states and territories to health providers. It also includes expenditure by individuals when they purchase health goods and services.

In most cases, data are not available directly from the providers of health goods and services. Data for this report are derived mainly from entities that provide funds to, or for, these

providers, particularly state and territory governments, the Australian Government, and private health insurers and individuals.

The AIHW compiles the AIHW health expenditure database annually. This database contains a wide range of information about health expenditure in Australia, reported for each financial year in the AIHW's *Health expenditure Australia* publication series. The relevant data quality statement is available online at

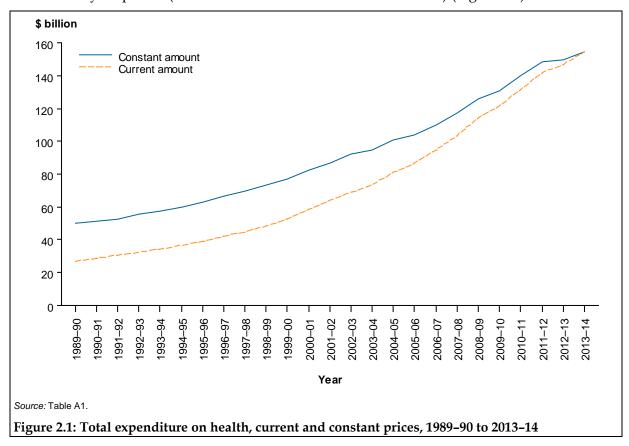
<a href="http://meteor.aihw.gov.au/content/index.phtml/itemId/602679">http://meteor.aihw.gov.au/content/index.phtml/itemId/602679</a>.

# 2 A growth industry

The story of health expenditure over the past 25 years is overwhelmingly one of growth.

Australia spent far more in 2013–14 than it did in 1989–90 in terms of actual dollars spent — \$154.6 billion compared to \$26.6 billion in current prices, not adjusted for inflation.

This increase was more than can be explained by inflation alone. The real or constant value, after adjusting for inflation, of the money spent on health increased by more than three times over the 25-year period (\$50.3 billion to \$154.6 billion in real terms) (Figure 2.1).



This growth was also much faster than population growth; with per person expenditure rising from \$2,969 in 1989–90 to \$6,637 in 2013–14 in real terms (Table A2). The last two years stand out as unusual in this context, however, consisting of a small decline in per person expenditure in 2012–13 (–0.6%) followed by a small increase in 2013–14 (1.4%). The last time similar low growth in expenditure occurred was in the early 1990s.

#### 2.1 Health expenditure relative to the economy

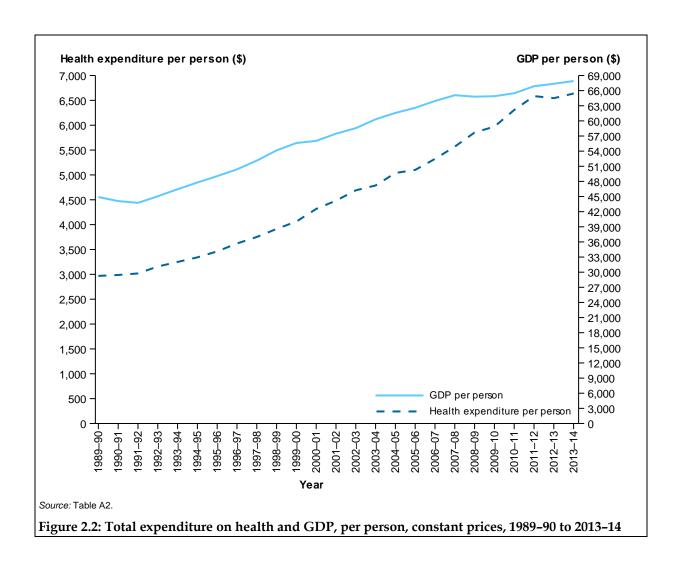
The broader economy also grew over this time, but health expenditure growth was faster than growth in the broader economy. Two commonly used measures of the size of the economy are gross domestic product (GDP), which includes exports and excludes imports, and gross national expenditure (GNE), which excludes exports and includes imports.

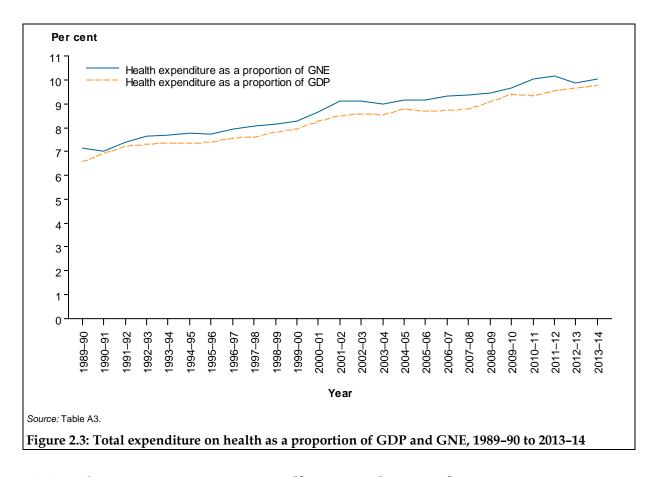
GDP increased from \$44,898 per person to \$67,904 per person from 1989–90 to 2013–14 (Figure 2.2). GNE grew similarly over this time. Health expenditure as a proportion of GDP increased from 6.5% of GDP to 9.7%, and the trend as a proportion of GNE was similar (Figure 2.3).

The health-to-GDP ratio did not rise uniformly throughout the 25-year period. For example, there were three periods where it rose relatively rapidly followed by relatively slow growth in ensuing years:

- The early 1990s. Toward the end of 1989–90 Australia entered a recession. Over the following 2 years, the health-to-GDP ratio rose 0.7 of a percentage point (6.5% to 7.2% in 1991–92). Over the 4 years after that, the ratio increased by just 0.1 of a percentage point.
- The late 1990s and early 2000s. Between 1995–96 and 2001–02, the health-to-GDP ratio rose from 7.3% to 8.4% (an increase of 1.2 percentage points in 6 years). In the following 6 years to 2007–08 it rose by just 0.3 of a percentage point.
- Following the GFC in 2008–09. The health-to-GDP ratio rose 0.6 of a percentage point in the 2 years between 2007–08 and 2009–10 (from 8.7% to 9.3%). It then rose 0.4 of a percentage point over the following 4 years, ending at 9.7% in 2013–14, its highest level over the 25-year period (Figure 2.3 and Table A3).

These movements reflect the fact that the ratio of health spending to GDP is affected by movements in both the numerator (growth in spending) and the denominator (GDP growth). Economic slowdowns have tended to increase the ratio to a greater extent than acceleration in health spending.

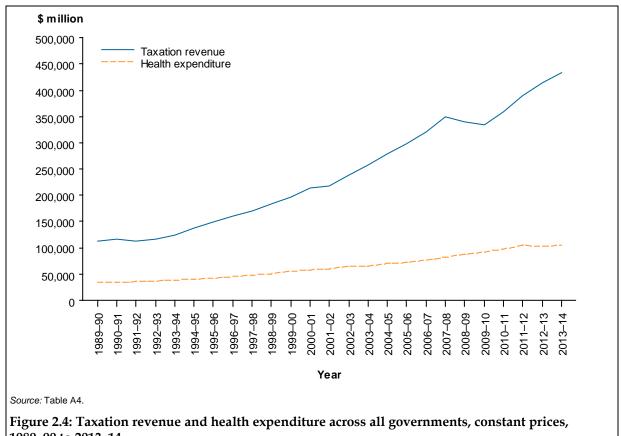




#### 2.2 Government spending and taxation revenue

In Australia, around 68% of health expenditure is by governments (AIHW 2015). In this context it is interesting to note the relationship between government revenues (taxation revenue) and health expenditure.

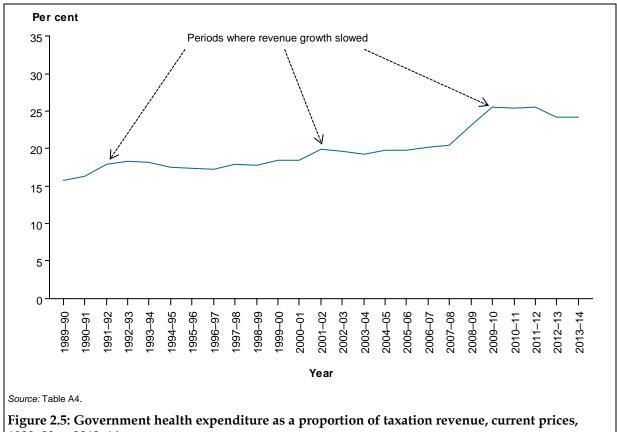
Both government health expenditure and taxation revenue rose over the period (Figure 2.4) but taxation revenue rose more steeply overall. There was greater volatility in taxation revenue, associated with the periods of slow economic growth noted above. Revenue is used here as a measure of the overall government financial position. (The overall budget situation or other measures of the financial position of government have not been examined and these could show different patterns.)



1989-90 to 2013-14

Overall the ratio of government health expenditure to taxation revenue rose from 15.7% in 1989-90 to 24.1% in 2013-14 but this growth was not steady throughout the period. There were three periods where the proportion of taxation revenue spent on health remained steady for a considerable time (1992-93 to 2000-01, 2001-02 to 2007-08 and 2009-10 to 2011-12) (Table A4).

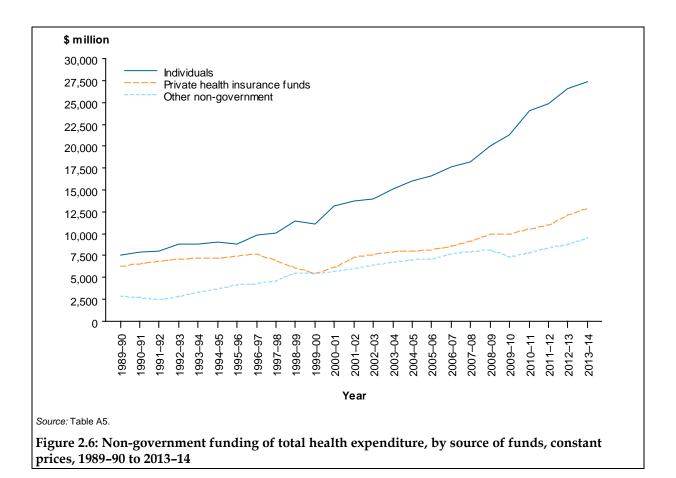
During the periods where revenues fell, the ratio of government health expenditure to revenue tended to rise relatively rapidly (Figure 2.5).



1989-90 to 2013-14

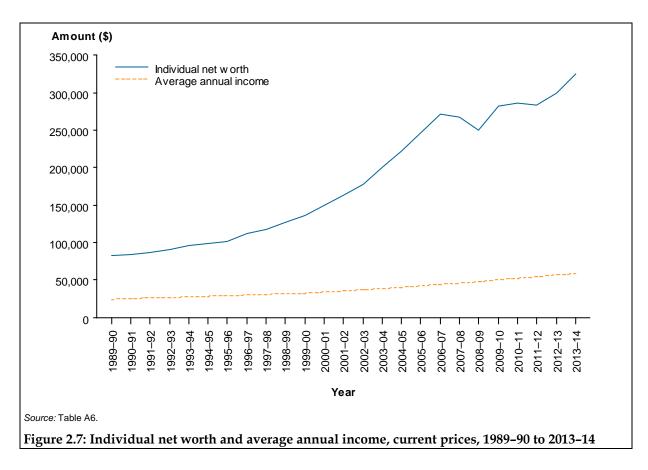
#### Spending by individuals and individual wealth

Around one-third of health expenditure (32.2% in 2013–14) comes from non-government sources – ultimately individuals (AIHW 2015). This proportion has remained reasonably steady over the past 25 years as private health expenditure has kept pace with total health expenditure. The main components of private health expenditure are private health insurance (PHI) outlays less government rebates, co-payments for goods and services subsidised by government, and payments for non-subsidised goods and services. Expenditure on all these components has increased substantially in real terms, though growth has varied from time to time, for example in response to changing government policies such as the introduction of incentives to encourage uptake of PHI in the late 1990s (discussed in more detail in Chapter 3) (Figure 2.6).



As with government health expenditure and taxation revenue, the growth in non-government expenditure has been in the context of growing wealth. Private wealth is measured here in terms of both individual net worth (measured in terms of assets and liabilities) and average annual incomes. Both of these increased over the period (Figure 2.7).

These measures provide a sense of the overall financial position of individuals and families. Some elements of these financial resources are not always directly accessible (e.g. capital assets such as homes) to fund health purchases. These elements do, however, contribute to the overall financial position of households and may affect purchasing decisions.



#### Individual spending relative to individual net worth

Individual net worth grew rapidly throughout much of the period, with particularly strong growth between 1996–97 and 2006–07. During the period between 1996–97 and 2006–07, the ratio of non-government health spending to individual net worth tended to decline year to year, ending at around 0.15 of a percentage point lower in 2006–07 than in 1996–97 (Table A6).

There were fluctuations in individual net worth in the 5 years following the GFC in 2008–09, with an increase in 2009–10 (1 year after the GFC) and a decrease in 2011–12 (3 years after the GFC). Since the impact of the GFC, the ratio has risen (figures 2.8 and 2.9).

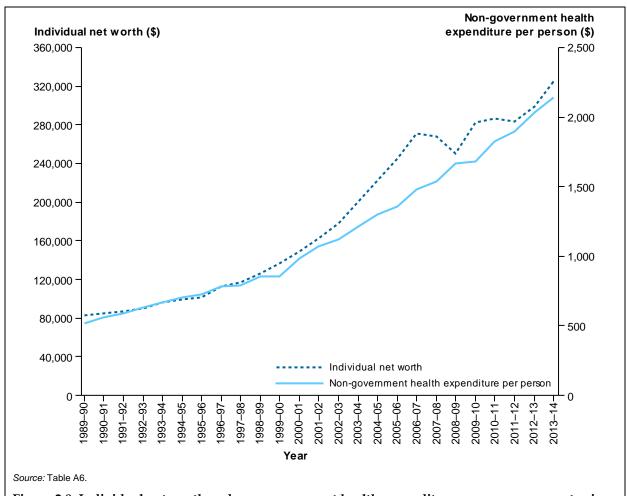
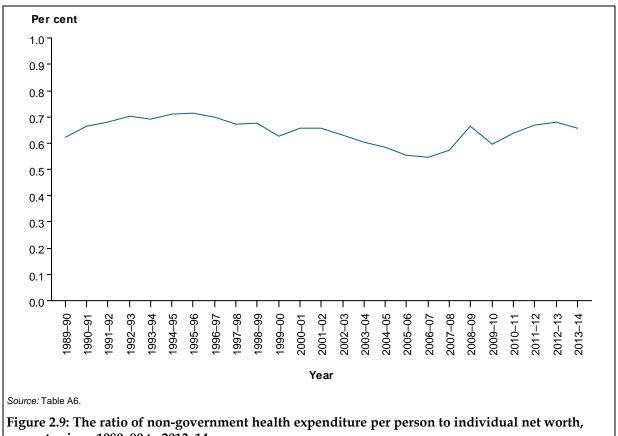


Figure 2.8: Individual net worth and non-government health expenditure per person, current prices, 1989-90 to 2013-14



current prices, 1989-90 to 2013-14

#### Individual spending relative to average annual incomes

Average annual income also increased over the period. The ratio of non-government health spending per person to average annual income increased from 2.1% in 1989-90 to 3.7% in 2013-14 (figures 2.10 and 2.11).

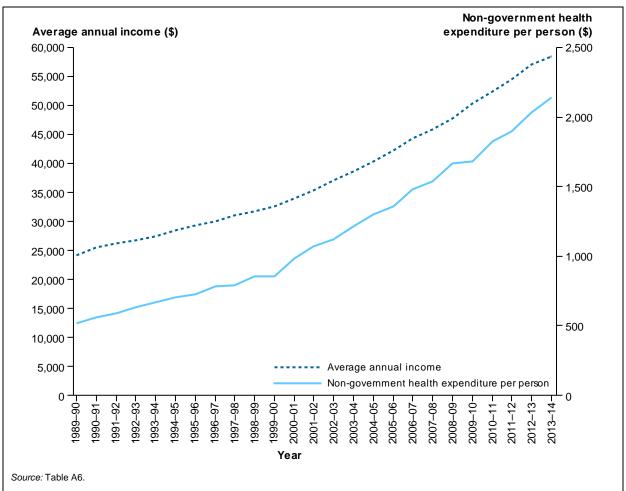


Figure 2.10: Average annual income and non-government health expenditure per person, current prices, 1989–90 to 2013–14

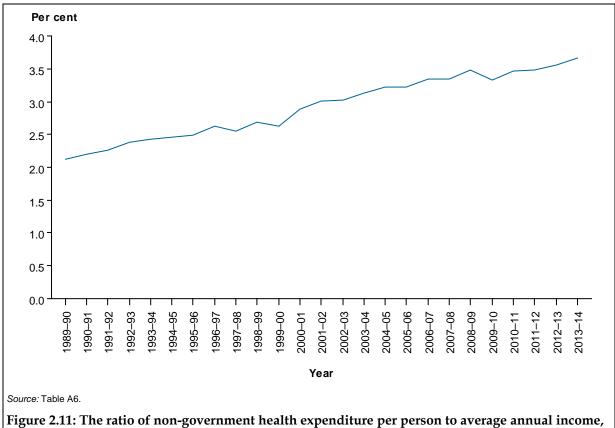


Figure 2.11: The ratio of non-government health expenditure per person to average annual income, current prices, 1989–90 to 2013–14

Importantly, net worth and income measures are averages, and growth in individual wealth may have been different for different groups. There is some evidence to suggest that wealth growth was indeed unevenly distributed throughout society. A measure of wealth inequality in society is the Gini coefficient – the higher the value, the higher the inequality. There was an increase in the Gini coefficient from 0.30 in 1994–95 to 0.33 in 2013–14, which suggests that wealth growth was greater in the higher income groups during this period (ABS 2015b).

It is also possible that expenditure growth was more concentrated in people of certain income groups. Expenditure data are not routinely available by population group, so it is difficult to say if growth in non-government expenditure was concentrated in any particular group.

# 3 Drivers of health expenditure

Community demand can lead to the development of new treatments and services. Conversely, the development of more effective treatments, that extend the living age for example, can lead to increased demand. In addition, expectations of the community regarding access to treatments and services can be influenced by health professionals who provide advice to patients.

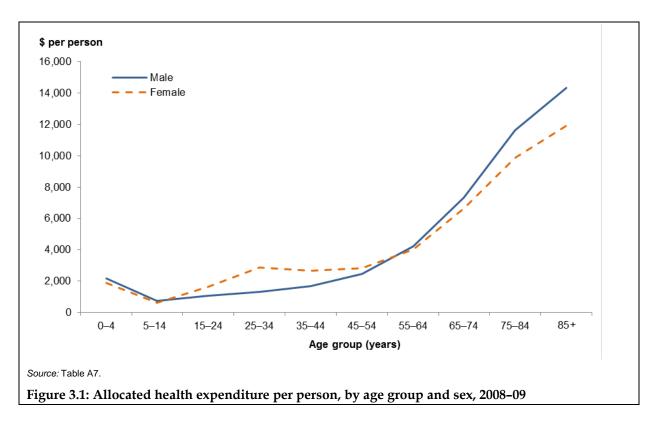
The availability of funds also influences health purchasing decisions, which in turn can be influenced by government policies that cap or restrict funding, and, as outlined in the previous chapter, by personal incomes.

This chapter discusses:

- population factors, including population size, that have helped drive health expenditure
- community expectations about the availability of health goods and services such as access to new treatments and technologies
- government funding policies and their effects on health expenditure between 1989–90 and 2013–14.

#### 3.1 Population factors

Population ageing has attracted attention in discussions around the drivers of health expenditure growth (PC 2005; Treasury 2010, 2015; OECD 2013). This is largely due to the fact that health care expenditure is generally higher in the older age groups. In 2008–09 (the most recent year for which this analysis available), expenditure in Australia on adults 85 years and over was almost 20 times as high per person than expenditure on children aged 5 to 14 years. This was true for both men and women (Figure 3.1).



If expenditure per person in each age group stayed constant over time or increased, this would suggest that population ageing will result in increased health expenditure.

The relationship between ageing and demand for health services is complex, however, and the extent to which current and projected growth in health expenditure can be attributed to population ageing is much-debated.

The effect of population ageing on demand (and costs) for health services may be mitigated if lifetime health costs are concentrated in the last few years of life. In such cases, as healthy life expectancy increases, death and its associated costs are postponed (Calver et al. 2006; Karamanidis et al. 2007; OECD 2013).

In this context it is worth noting that, over the past 25 years, health expenditure in Australia has risen much faster than either population growth or ageing—Figure 2.2 indicates that per person expenditure increased by 123.5% in real terms over the period.

Figure 3.2 indicates that the ratio of total health expenditure compared to the size of the population aged 65 and over increased by 69.0% over the 25 years to 2013–14. Compared to the population aged 75 and older, the ratio rose by 49.7% over the 25 years. This suggests that expenditure was growing at a much faster rate than growth in the size of the population in the older age groups.

It seems, therefore, that neither population growth nor ageing can fully explain the growth in health expenditure.

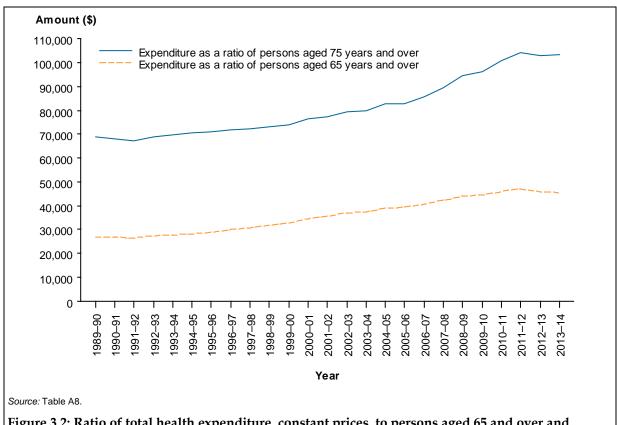


Figure 3.2: Ratio of total health expenditure, constant prices, to persons aged 65 and over and persons aged 75 years and over, 1989–90 to 2013–14

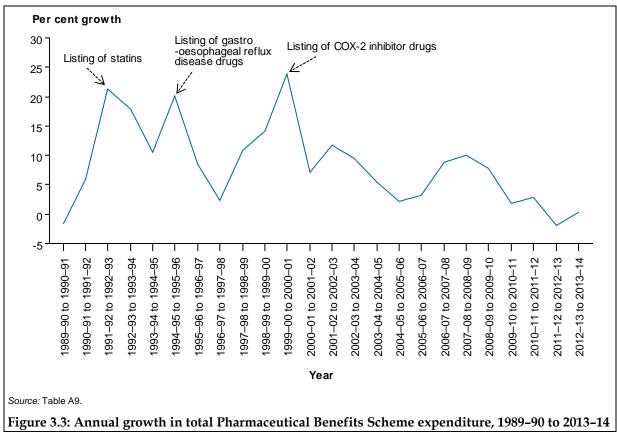
#### 3.2 New treatments and technologies

Community expectations of the health system and access to technologies, treatments and services have an impact on health-service-seeking behaviour and can drive demand for health expenditure faster than demographic factors alone would predict (PC 2005, 2013; OECD 2013; Coory 2004; Richardson & Robertson 1999; Treasury 2010).

The Pharmaceutical Benefits Scheme (PBS) is one area that attracts particular attention in this regard. As new treatments become available, there can be a community expectation that these are subsidised by the Australian Government through the PBS. The listing of new medications on the PBS can then have an effect on health expenditure.

The impact of the release and take-up in the early 1990s of the statin group of medicines, which are used to prevent and manage cardiovascular disease, is an example of how the release of new treatments can lead to increased expenditure. Other examples include the PBS listing of drugs used for the treatment of gastro-oesophageal reflux disease in 1995–96, the listing of celecoxib and rofecoxib (COX-2) for the treatment of osteoarthritis and rheumatoid arthritis in 2000–01 and the anti-smoking drug Zyban, also listed in 2000–01. The listing of these drugs resulted in high growth in PBS expenditure in the year of listing (Figure 3.3).

This is also an example of how changes in government policies can have a large impact on expenditure (discussed in more detail below).



#### Policies and agreements 3.3

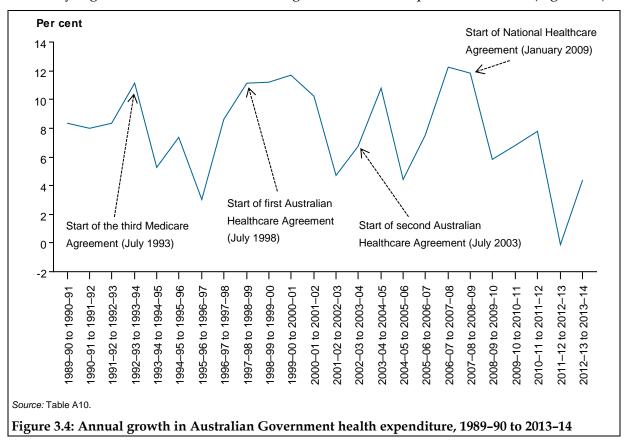
Expenditure growth is not inevitable. Growing community expectations and new technologies do not necessarily or always result in uniformly increased expenditure or funding.

Expenditure is influenced by the policies and preferences of governments and private providers and funders, including health insurers.

As illustrated in the PBS example in Section 3.2, financing arrangements play an important role in determining how and when demand is met and at what cost. In the context of the PBS, the tendency toward growth in expenditure is balanced by cost-effectiveness controls on the listing of medications, and negotiations around pricing. These controls manage the supply of these medications and the outlays involved, aiming to promote greater effectiveness in health outcomes commensurate with the increase in costs. Since 2000–01, restrictions on the listing of high-cost pharmaceuticals on the PBS have kept annual growth at about 10% or below. In 2012–13, there was a decline in total PBS expenditure (Table A9).

The effect of policy changes on health expenditure in Australia is particularly highlighted by the impact of healthcare agreements between the Australian Government and the states and territories. In the first year of the agreements introduced in 1993-94 and 1998-99, growth in Australian Government expenditure was relatively high compared to previous years. For the agreement introduced in 2003-04, there was relatively high growth in the second year (Figure 3.4).

There was no such immediate spike in health expenditure growth on implementation of the National Healthcare Agreement in 2008–09. This was related to the fact that in the year prior to the introduction of the Agreement, growth in Australian Government spending was relatively high as a result of additional Budget measures in response to the GFC (Figure 3.4).



Funding arrangements for hospitals between the states and territories and the Australian Government is a policy area that attracts particular attention. While hospitals are administered and funded by the states and territories, the states and territories also receive specific funding support from the Australian Government for hospitals through arrangements such as the 1998 and 2003 Australian Healthcare Agreements, and the 2009 National Healthcare Agreement, as outlined earlier.

Australian Government and state and territory government expenditure on hospitals between 1989–90 and 2013–14 is shown in Figure 3.5. The gap between the two sources of funds increased overall from 2003–04 to 2006–07. This coincided with the introduction of the 2003 Australian Healthcare Agreement, and, more particularly, changes in payment indexation arrangements that were part of that Agreement. The two Australian Healthcare Agreements (1998 and 2003) specified a base amount to be provided by the Australian Government to the states and territories in the first year. This base amount then grew in each subsequent year according to an agreed indexation formula. The indexation in the 2003 Agreement was calculated by applying a growth rate of 1.7% above the weighted population growth to 71% of the base grant. This indexation agreement was less generous than the 1998 arrangement, which specified a rate of 2.1% above the weighted population growth applied to 83% of the base grant.

The 2003 indexation arrangement was not changed until the 2009 National Healthcare Agreement, when the basis of Australian Government funding changed to include growth factors based on the AIHW total health price index, growth in population weighted for hospital usage, and a technological growth factor supplied by the Productivity Commission.

The beginning of the 2009 Agreement also coincided with a grant of around \$1.2 billion provided by the Australian Government to the states and territories as part of the National Partnership Agreement on Health and Hospital Workforce Reform. This funding was all transferred from the Australian Government and offset against the states and territory expenditure in the first year, which explains the volatility in the trend around this time.

With the 2009 indexation changes, and despite the additional funding, the gap between Australian Government and state and territory expenditure on hospitals has generally increased from 2008–09 to the largest it has been at \$4.5 billion in 2013–14 (Table A11).

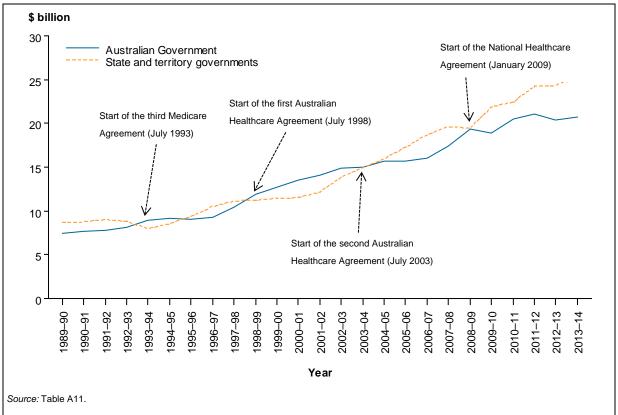
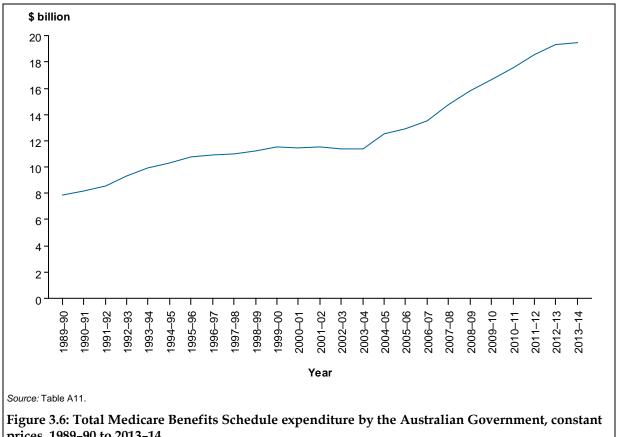


Figure 3.5: Total hospitals expenditure, constant prices, by Australian Government and state and territory/local governments, 1989–90 to 2013–14

Another area where government policy has had a particular impact on health expenditure is in relation to the Medicare Benefits Schedule (MBS). Figure 3.6 shows Australian Government expenditure on the MBS. There has been marked growth in MBS expenditure over the period. Expenditure began to rise particularly rapidly from 2004–05, when there were a number of changes made to the Schedule by the Australian Government, including:

- the introduction of bulk-billing incentives for GPs, particularly in non-metropolitan areas
- the extension of bulk-billing for more services such as some imaging services
- an increase in the Medicare benefit to 100% (from 85%) of the MBS fee for bulk-billed unreferred attendances
- new Medicare items for certain allied health and dental services
- an extension of the Medicare safety net to assist with the costs of medical services provided out of hospital, particularly for those with complex and high health-care needs (DoH 2015).



prices, 1989-90 to 2013-14

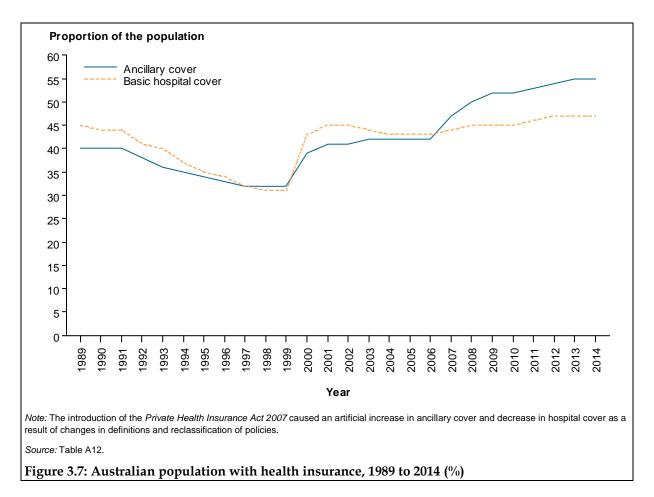
As outlined earlier, government policy can influence more than government expenditure. It can also influence consumer behaviour. A prominent example has been the apparent impact on non-government (consumer) expenditure of several changes made to the private health insurance system in Australia since the late 1990s.

The Private Health Insurance Incentives Scheme was first introduced by the Australian Government in 1997. This provided a subsidy to low-income earners who took out private health insurance. In addition, a penalty was also introduced in 1997 through the income tax system in the form of the Medicare levy surcharge. The surcharge meant that high-income earners who chose not to maintain private health insurance for private hospital services paid extra in tax.

The Private Health Insurance Incentives Scheme was replaced in 1999 by a non-means tested rebate on private health insurance premiums. In 2000, Lifetime Health Cover was introduced. This was designed to encourage people to take out hospital insurance earlier in life, and to maintain their cover.

Also, prior to the 2012 financial year, the Medicare levy surcharge was a flat rate of 1%. In July 2012 income thresholds with higher rates of the surcharge for higher income earners were introduced. The surcharge income threshold is now indexed annually.

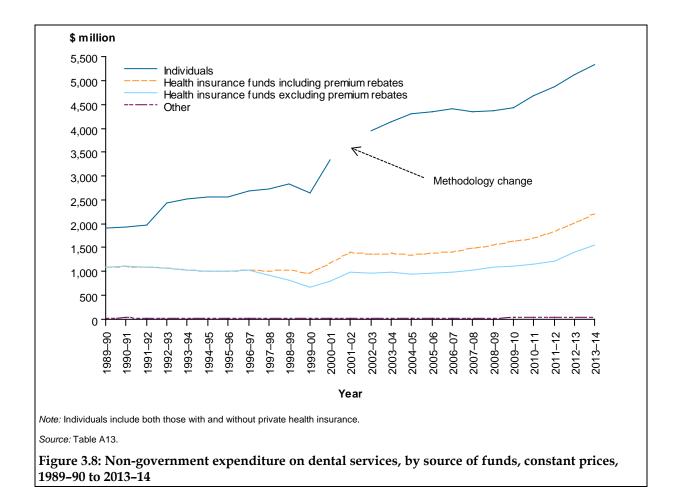
The Lifetime Health Cover arrangements introduced in 2000 applied to hospital insurance only, and resulted in rises in purchases of basic hospital cover (Figure 3.7; Table A12). But purchases of ancillary cover also rose after Lifetime Health Cover was introduced, such that the proportion of Australians with ancillary cover rose from 32.2% in 1999 to 40.8% in 2001, and 55.3% in 2014.



One health services area particularly affected by these changes was expenditure on dental services. Figure 3.8 shows trends in non-government expenditure on dental services over the past 25 years.

This shows an initial reduction in spending by individuals (both those with and without private health insurance) on dental services following the introduction in 2000 of the Lifetime Health Cover private health insurance incentives. This initial reduction is possibly related to the fact that when purchasing insurance cover for the first time or changing policies, people often need to serve a waiting period before claiming benefits.

Following the initial decrease, there was a rapid increase in individual spending on dental services. The increase has continued over recent years, as have rates of ancillary cover. This suggests that the private health insurance changes had an impact on expenditure on dental services. Some of this expenditure was covered by private health insurers and subsidised through the Australian Government rebates, and is likely to be directly related to the increases in ancillary cover. However, the largest increase in dental services expenditure was by individuals out of their own pockets; this may have been an indirect effect of increased ancillary cover providing an incentive for increased use of dental services, though there is no direct evidence for this.



25 years of health expenditure in Australia 1989-90 to 2013-14

#### 4 Conclusion

As shown in Chapter 2, health expenditure in Australia has risen substantially over the past 25 years. We showed in Chapter 3 how different factors have affected this trend. In particular, we noted that the Australian population has both grown and aged over this period. Both are likely to have led to greater demand for health care. There has also been a demand for new treatments and technologies in a context of substantial wealth growth.

Both public and private suppliers of health care have sought to meet this demand through a variety of different service models and policies financed through a variety of mechanisms, including taxation revenue, fee-for-service payments, co-payments and health insurance.

It is noteworthy in this context that government health expenditure has grown faster than population growth and ageing, but has tended to increase at a similar rate to government revenue, except during periods where there was a shock to revenues (such as during the GFC).

Similarly, non-government health expenditure tended to keep pace with growth in individual net worth, although it outpaced growth in average incomes.

This pattern of coinciding growth in wealth and health expenditure has been found in other countries, particularly OECD countries (OECD 2013).

This phenomenon highlights the role of the economy in influencing supply of, and demand for, health goods and services. The amount of wealth in the community influences the amount of money available for spending on health; it also affects community expectations and the nature of government policies. This point was illustrated by the impact of the GFC on health spending in many OECD countries. Following the GFC, the OECD noted periods of extraordinarily low growth across it members, with many cases of declines in spending (OECD 2013).

In Australia, however, the correlation between changes in the economic conditions and changes in health expenditure has not been strong. Health expenditure overall has tended to be far less volatile than GDP, GNE, taxation revenue or individual wealth (see Chapter 2 for more details), although there have been changes in particular areas of spending, and for different funders.

It is worth noting, however, that prior to the GFC the broad story for both health expenditure and the Australian economy was one of growth for more than two decades. Since the GFC there has been relatively flat growth in GDP per capita and volatility in taxation revenue and individual wealth (see Chapter 2). Over this period many concerns have been raised regarding the viability of the economy sustaining current and future levels of growth in health spending, given fears that population ageing will rapidly increase the demand for health services (PC 2005; Treasury 2010, 2015; OECD 2013).

In that context, the relatively continued low growth in health expenditure in 2012–13 and 2013–14 may be a sign of a broad change in expectations regarding the health system.

### **Glossary**

**Australian Government health expenditure:** Total expenditure that the Australian Government actually incurs on its own health programs. It does not include the funding provided by the Australian Government to the states and territories by way of grants under section 96 of the Constitution.

**Australian Government health funding:** The sum of Australian Government expenditure and section 96 (of the Constitution) grants to states and territories. This includes the private health insurance premium rebate.

**average annual income**: Calculated from average weekly earnings statistics which are the average gross (before tax) earnings of employees. Estimates of average weekly earnings are derived by dividing estimates of weekly total earnings by estimates of number of employees.

constant prices: Constant price expenditure adjusts current prices for the effects of inflation, that is, it aims to remove the effects of inflation. Constant price estimates for expenditure aggregates have been derived using either annually re-weighted chain price indexes or implicit price deflators (IPDs). The reference year for both the chain price indexes and the IPDs is 2013–14 in this report. Constant price estimates indicate what expenditure would have been had 2013–14 prices applied in all years. Hence, expenditures in different years can be compared on a dollar-for-dollar basis, using this measure of changes in the volume of health goods and services.

**current prices:** The term 'current prices' refers to expenditure reported for a particular year, unadjusted for inflation. Changes in current price expenditure reflect changes in both price and volume.

**gross domestic product (GDP):** Commonly used to indicate national income, this is the total market value of goods and services produced within a given period after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital.

**gross national expenditure (GNE):** An alternative measure to gross domestic product (GDP), GNE is equal to GDP minus export income but including imports.

**individual net worth:** calculated from household net worth, which is the difference between the stock of assets (both financial and non-financial) and the stock of liabilities (including shares and other equity).

**jurisdictions:** State and territory and local governments.

**Medicare Benefits Schedule (MBS):** The list of Medicare services subsidised by the Australian Government (see **Medicare**).

**Medicare:** A national, government-funded scheme that subsidises the cost of personal medical services for all Australians and aims to help them afford medical care. The Medicare Benefits Schedule (MBS) is the list of Medicare services subsidised by the Australian Government (see **Medicare Benefits Schedule [MBS]**). The schedule is part of the wider Medicare Benefits Scheme (Medicare).

**Pharmaceutical Benefits Scheme (PBS):** A national, government-funded scheme that subsidises the cost of a wide range of pharmaceutical drugs, and that covers all Australians to help them afford standard medications. The Pharmaceutical Benefits Schedule lists all the

medicinal products available under the PBS and explains the uses for which they can be subsidised.

**real expenditure:** Expenditure that has been adjusted to remove the effects of inflation (for example, expenditure for all years has been compiled using 2013–14 prices). Removing the effects of inflation enables comparisons to be made between expenditures in different years on an equal dollar-for-dollar basis. Changes in real expenditure measure changes in the volume of goods and services produced.

# **Appendix tables**

Table A1: Total expenditure on health, current and constant prices  $^{(a)}\!$  , 1989–90 to 2013–14

	Amount (\$ million)		
Year	Current	Constant	
1989–90	26,570	50,281	
1990–91	28,738	51,286	
1991–92	30,505	52,455	
1992–93	32,450	55,440	
1993–94	34,322	57,578	
1994–95	36,473	59,793	
1995–96	39,047	62,726	
1996–97	42,116	66,370	
1997–98	44,802	69,440	
1998–99	48,428	73,204	
1999–00	52,570	76,859	
2000–01	58,318	82,605	
2001–02	64,046	86,907	
2002-03	68,798	91,956	
2003–04	73,509	94,932	
2004–05	81,061	101,014	
2005–06	86,685	103,614	
2006–07	94,938	109,795	
2007–08	103,563	117,048	
2008–09	114,401	125,705	
2009–10	121,710	130,582	
2010–11	131,612	139,826	
2011–12	141,957	148,304	
2012–13	146,953	149,986	
2013–14	154,622	154,622	

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices. Source: AIHW health expenditure database.

Table A2: Total expenditure on health and GDP, per person, constant prices<sup>(a)</sup>, 1989-90 to 2013-14

_	Health expenditure		GDP	
Year	Amount (\$)	Growth (%)	Amount (\$)	Growth (%)
1989–90	2,969		44,898	
1990–91	2,987	0.6	44,100	-1.7
1991–92	3,018	1.0	43,745	-0.8
1992–93	3,158	4.6	45,054	2.9
1993–94	3,249	2.9	46,448	3.0
1994–95	3,342	2.8	47,780	2.8
1995–96	3,462	3.5	49,046	2.6
1996–97	3,621	4.5	50,395	2.7
1997–98	3,751	3.6	52,117	3.4
1998–99	3,913	4.3	54,152	3.9
1999–00	4,062	3.8	55,614	2.6
2000–01	4,316	6.2	56,030	0.7
2001–02	4,483	3.8	57,457	2.5
2002–03	4,690	4.6	58,565	1.9
2003–04	4,788	2.0	60,317	2.9
2004–05	5,039	5.2	61,578	2.0
2005–06	5,101	1.2	62,590	1.6
2006–07	5,323	4.3	63,949	2.1
2007–08	5,569	4.6	65,090	1.7
2008–09	5,853	5.0	64,801	-0.4
2009–10	5,972	2.0	64,894	0.1
2010–11	6,306	5.5	65,481	0.9
2011–12	6,585	4.4	66,873	2.1
2012–13	6,544	-0.6	67,355	0.7
2013–14	6,637	1.4	67,904	0.8

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices.

Source: AIHW health expenditure database.

Table A3: Total expenditure on health, current prices, and annual health-to-GDP and health-to-GNE ratios, 1989-90 to 2013-14

		GDI	P	GNI	E
Year	Total health expenditure (\$ million)	Amount (\$ million)	Proportion (%)	Amount (\$ million)	Proportion (%)
1989–90	26,570	404,073	6.5	372,953	7.1
1990–91	28,738	414,900	6.9	408,996	7.0
1991–92	30,505	423,005	7.2	412,815	7.3
1992–93	32,450	444,079	7.3	423,980	7.6
1993–94	34,322	466,715	7.3	447,167	7.6
1994–95	36,473	495,653	7.3	468,217	7.7
1995–96	39,047	529,058	7.3	505,409	7.7
1996–97	42,116	556,656	7.5	531,371	7.9
1997–98	44,802	588,725	7.6	554,928	8.0
1998–99	48,428	620,275	7.8	593,343	8.1
1999–00	52,570	660,784	7.9	634,464	8.2
2000–01	58,318	705,275	8.2	674,214	8.6
2001–02	64,046	753,492	8.4	704,033	9.0
2002–03	68,798	800,897	8.5	753,315	9.1
2003–04	73,509	861,575	8.5	817,899	8.9
2004–05	81,061	922,279	8.7	884,841	9.1
2005–06	86,685	997,968	8.6	947,320	9.1
2006–07	94,938	1,087,028	8.7	1,015,999	9.3
2007–08	103,563	1,178,422	8.7	1,104,526	9.3
2008–09	114,401	1,258,074	9.0	1,209,056	9.4
2009–10	121,710	1,295,727	9.3	1,256,790	9.6
2010–11	131,612	1,407,865	9.3	1,308,327	10.0
2011–12	141,957	1,488,028	9.5	1,393,208	10.1
2012–13	146,953	1,520,944	9.6	1,489,933	9.8
2013–14	154,622	1,581,837	9.7	1,539,659	10.0

Table A4: Government health expenditure, constant  $^{(a)}$  and current prices and taxation revenue, 1989–90 to 2013–14

All government health expenditure

Year	Constant (\$ million)	Current (\$ million)	Government taxation revenue (\$ million)	All government health expenditure as a proportion of tax revenue (%)
1989–90	33,653	17,846	113,342	15.7
1999–90				16.3
	34,182	19,111	116,929	
1991–92	35,206	20,210	113,096	17.8
1992–93	36,725	21,327	116,220	18.3
1993–94	38,226	22,506	123,602	18.2
1994–95	39,915	23,911	136,463	17.5
1995–96	42,301	25,884	149,578	17.3
1996–97	44,564	27,711	160,949	17.2
1997–98	47,883	30,184	168,980	17.8
1998–99	50,140	32,460	182,234	17.8
1999–00	54,884	36,380	196,775	18.4
2000–01	57,658	39,514	214,343	18.4
2001–02	59,826	43,360	217,636	19.9
2002–03	64,013	46,838	238,167	19.6
2003–04	65,165	49,440	257,379	19.2
2004–05	69,919	54,985	278,775	19.7
2005–06	71,773	59,051	298,064	19.8
2006–07	75,869	64,434	320,091	20.1
2007–08	81,791	71,234	348,821	20.4
2008–09	87,522	78,653	339,440	23.1
2009–10	91,965	84,946	333,391	25.4
2010–11	97,450	91,166	359,282	25.3
2011–12	104,059	99,316	389,970	25.4
2012–13	102,553	100,373	415,119	24.1
2013–14	104,833	104,833	433,885	24.1

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices.

Source: AIHW health expenditure database; ABS 2015c.

Table A5: Non-government sector funding of total health expenditure, by source of funds, constant prices<sup>(a)</sup>, 1989–90 to 2013–14

	Individuals	Private health insurance funds <sup>(b)</sup>	Other non-government <sup>(c)</sup>
Year	(\$ million)	(\$ million)	(\$ million)
1989–90	7,551	6,231	2,846
1990–91	7,846	6,563	2,695
1991–92	7,985	6,823	2,442
1992–93	8,793	7,102	2,819
1993–94	8,859	7,167	3,326
1994–95	9,002	7,216	3,660
1995–96	8,833	7,431	4,161
1996–97	9,819	7,702	4,285
1997–98	10,066	6,889	4,602
1998–99	11,468	6,091	5,506
1999–00	11,093	5,461	5,421
2000–01	13,136	6,123	5,688
2001–02	13,767	7,302	6,012
2002–03	13,931	7,613	6,399
2003–04	15,115	7,922	6,730
2004–05	16,032	8,034	7,028
2005–06	16,637	8,129	7,075
2006–07	17,627	8,582	7,717
2007–08	18,226	9,099	7,931
2008–09	20,099	9,914	8,170
2009–10	21,350	9,936	7,331
2010–11	24,013	10,551	7,812
2011–12	24,856	10,986	8,402
2012–13	26,545	12,122	8,765
2013–14	27,404	12,877	9,508

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices.

<sup>(</sup>b) Funding by private health insurance excludes the Australian Government private health insurance rebate.

<sup>(</sup>c) Includes funding by injury compensation insurers. All non-government sector capital expenditure is also included here, as the sources of funding of non-government capital expenditure are not known. If funding sources were known, this capital expenditure would be spread across all funding columns.

Table A6: Annual individual net worth and average annual income, current prices, and the ratio of non-government health expenditure per person to individual net worth and average annual income, 1989–90 to 2013–14

	Non-gov health exp per pe	enditure	Individual	net worth	Average inco			
Year	Amount (\$)	Growth (%)	Amount (\$)	Growth (%)	Amount (\$)	Growth (%)	Individual net worth ratio (%)	Average annual income ratio (%)
1989–90	515		82,767		24,200		0.62	2.12
1990–91	561	8.8	84,509	2.1	25,445	5.1	0.66	2.20
1991–92	592	5.6	87,128	3.0	26,251	3.1	0.67	2.25
1992–93	634	6.9	90,362	3.7	26,664	1.5	0.70	2.37
1993–94	667	5.2	96,246	6.5	27,491	3.1	0.69	2.42
1994–95	702	5.2	98,953	2.8	28,483	3.6	0.70	2.46
1995–96	726	3.4	101,884	2.9	29,255	2.7	0.71	2.48
1996–97	786	8.1	112,280	10.2	29,982	2.4	0.69	2.62
1997–98	790	0.4	117,428	4.5	31,022	3.4	0.67	2.54
1998–99	854	8.0	126,459	7.6	31,680	2.1	0.67	2.69
1999–00	856	0.2	136,697	8.0	32,541	2.7	0.62	2.62
2000–01	982	14.7	149,151	9.1	34,019	4.5	0.65	2.88
2001–02	1,067	8.6	162,727	9.1	35,428	4.1	0.65	3.01
2002–03	1,120	4.9	177,711	9.2	37,083	4.6	0.63	3.02
2003–04	1,214	8.3	200,775	12.9	38,672	4.2	0.60	3.13
2004–05	1,301	7.1	222,408	10.7	40,348	4.3	0.58	3.22
2005–06	1,361	4.5	245,378	10.3	42,290	4.8	0.55	3.21
2006–07	1,479	8.6	271,404	10.6	44,263	4.6	0.54	3.34
2007–08	1,538	4.0	267,785	-1.3	45,889	3.6	0.57	3.35
2008–09	1,665	8.2	250,093	-6.6	47,713	3.9	0.66	3.48
2009–10	1,681	1.0	282,686	13.0	50,428	5.6	0.59	3.33
2010–11	1,824	8.4	286,283	1.2	52,495	4.0	0.63	3.47
2011–12	1,893	3.7	283,500	-0.9	54,468	3.7	0.66	3.47
2012–13	2,032	7.3	299,100	5.5	57,062	4.7	0.67	3.56
2013–14	2,137	5.1	324,700	8.5	58,391	2.3	0.65	3.66

#### Notes

Sources: AIHW health expenditure database; ABS 2014; ABS 2015a.

<sup>1.</sup> Individual net worth is calculated from ABS 2014.

Average annual income is calculated from ABS 2015a.

Table A7: Allocated health expenditure per person, by age group and sex, 2008-09

	Health expenditure per person (\$)		
Age group (years)	Male	Female	
0–4	2,184	1,885	
5–14	727	633	
15–24	1,051	1,655	
25–34	1,311	2,863	
35–44	1,698	2,679	
45–54	2,471	2,814	
55–64	4,219	4,030	
65–74	7,334	6,648	
75–84	11,624	9,870	
85+	14,339	11,918	

Source: AIHW disease expenditure database.

Table A8: Ratio of total health expenditure, constant  $prices^{(a)}$ , to the population aged 65 years and over and 75 years and over, 1989–90 to 2013–14

Year	Total health expenditure (\$ million)	Total health expenditure over the population aged 65 years and over	Total health expenditure over the population aged 75 years and over
1989–90	50,281	26,933	69,067
1990–91	51,286	26,691	67,928
1991–92	52,455	26,547	67,198
1992–93	55,440	27,371	69,047
1993–94	57,578	27,740	69,790
1994–95	59,793	28,224	70,485
1995–96	62,726	28,957	71,000
1996–97	66,370	30,002	72,042
1997–98	69,440	30,796	72,319
1998–99	73,204	31,856	73,181
1999–00	76,859	32,835	73,889
2000–01	82,605	34,578	76,283
2001–02	86,907	35,612	77,406
2002–03	91,956	37,002	79,605
2003–04	94,932	37,473	79,875
2004–05	101,014	39,101	82,816
2005–06	103,614	39,288	82,774
2006–07	109,795	40,675	85,751
2007–08	117,048	42,286	89,628
2008–09	125,705	44,172	94,516
2009–10	130,582	44,458	96,180
2010–11	139,826	46,044	100,656
2011–12	148,304	47,057	104,332
2012–13	149,986	45,761	102,999
2013–14	154,622	45,517	103,372

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices. Source: AIHW health expenditure database.

Table A9: Annual growth in total pharmaceutical benefit expenditure, current prices, 1989-90 to 2013-14

Year	Pharmaceutical benefit expenditure (\$ million)	Growth in pharmaceutical benefit expenditure (%)
1989–90	1,264	· · · · · · · · · · · · · · · · · · ·
1990–91	1,245	-1.5
1991–92	1,319	5.9
1992–93	1,601	21.3
1993–94	1,888	17.9
1994–95	2,086	10.4
1995–96	2,504	20.0
1996–97	2,718	8.5
1997–98	2,783	2.3
1998–99	3,086	10.8
1999–00	3,523	14.1
2000–01	4,365	23.8
2001–02	4,673	7.0
2002–03	5,219	11.6
2003–04	5,719	9.5
2004–05	6,030	5.4
2005–06	6,157	2.1
2006–07	6,352	3.1
2007–08	6,911	8.7
2008–09	7,599	9.9
2009–10	8,197	7.8
2010–11	8,352	1.8
2011–12	8,591	2.8
2012–13	8,423	-1.9
2013–14	8,452	0.3

 $Table\ A10: Annual\ growth\ in\ Australian\ Government\ health\ expenditure,\ current\ prices,\ 1989-90\ to\ 2013-14$ 

Year	Amount (\$ million)	Growth (%)
1989–90	10,574	
1990–91	11,458	8.3
1991–92	12,377	8.0
1992–93	13,412	8.3
1993–94	14,906	11.1
1994–95	15,694	5.2
1995–96	16,847	7.3
1996–97	17,354	3.0
1997–98	18,852	8.6
1998–99	20,959	11.1
1999–00	23,304	11.1
2000–01	26,035	11.7
2001–02	28,699	10.2
2002–03	30,058	4.7
2003–04	32,091	6.7
2004–05	35,559	10.8
2005–06	37,144	4.4
2006–07	39,948	7.5
2007–08	44,854	12.2
2008–09	50,160	11.8
2009–10	53,076	5.8
2010–11	56,676	6.7
2011–12	61,092	7.7
2012–13	61,022	-0.1
2013–14	63,701	4.3

Table A11: Total hospitals and Medicare Benefits Schedule expenditure, constant prices<sup>(a)</sup>, by Australian Government and state and territory/local governments, 1989–90 to 2013–14

	Total		
Year	Australian Government (\$ billion)	State and territory/local governments (\$ billion)	Medicare Benefits Schedule (\$ billion)
1989–90	7.4	8.7	7.9
1990–91	7.7	8.7	8.1
1991–92	7.8	9.0	8.5
1992–93	8.2	8.8	9.3
1993–94	9.0	8.0	9.9
1994–95	9.1	8.5	10.3
1995–96	9.1	9.4	10.8
1996–97	9.2	10.5	10.9
1997–98	10.5	11.1	11.0
1998–99	11.9	11.2	11.2
1999–00	12.8	11.5	11.5
2000–01	13.6	11.5	11.5
2001–02	14.1	12.2	11.5
2002-03	14.9	13.9	11.4
2003–04	15.1	15.0	11.4
2004–05	15.7	16.0	12.5
2005–06	15.6	17.3	12.9
2006–07	16.0	18.7	13.5
2007–08	17.5	19.6	14.8
2008–09	19.3	19.5	15.8
2009–10	18.9	21.9	16.7
2010–11	20.5	22.5	17.6
2011–12	21.1	24.3	18.5
2012–13	20.4	24.4	19.3
2013–14	20.8	25.3	19.5

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices.

Table A12: Australian population with health insurance, by type of health insurance coverage, 1989 to 2014 (%)

	Proportion of Australian population	Proportion of Australian population
Year	with ancillary cover (%)	with basic hospital cover (%)
1989	40.3	45.5
1990	39.9	44.5
1991	39.6	43.7
1992	37.5	41.0
1993	36.2	39.5
1994	34.6	37.3
1995	33.6	35.0
1996	33.1	33.7
1997	31.8	32.1
1998	31.9	30.8
1999	32.2	30.8
2000	39.5	43.3
2001	40.8	45.2
2002	41.5	44.7
2003	41.6	43.8
2004	41.7	43.3
2005	41.8	43.1
2006	42.4	43.3
2007	46.8	43.9
2008	50.1	44.9
2009	51.6	44.9
2010	52.4	45.3
2011	53.2	45.9
2012	54.2	46.6
2013	54.8	46.9
2014	55.3	47.2

Note: The introduction of the Private Health Insurance Act 2007 caused an artificial increase in ancillary cover and decrease in hospital cover as a result of changes in definitions and reclassification of policies.

Source: PHIAC 2015.

Table A13: Non-government expenditure on dental services, by source of funds, constant prices<sup>(a)</sup>, 1989-90 to 2013-14 (\$ million)

Year	Individuals <sup>(b)</sup> (\$ million)	Health insurance funds including premium rebates (\$ million)	Health insurance funds excluding premium rebates (\$ million)	Other non-government (\$ million)
1989–90	1,914	1,096	1,096	7
1990–91	1,941	1,101	1,101	35
1991–92	1,976	1,090	1,090	8
1992–93	2,436	1,069	1,069	12
1993–94	2,513	1,033	1,033	12
1994–95	2,556	1,002	1,002	15
1995–96	2,566	1,001	1,001	17
1996–97	2,681	1,025	1,025	16
1997–98	2,720	1,012	924	15
1998–99	2,839	1,031	826	19
1999–00	2,655	960	667	16
2000–01	3,349	1,178	789	15
2001–02	3,766	1,399	987	17
2002–03	3,941	1,363	966	16
2003–04	4,139	1,374	979	11
2004–05	4,298	1,344	943	12
2005–06	4,346	1,381	960	12
2006–07	4,418	1,413	991	11
2007–08	4,341	1,485	1,020	11
2008–09	4,362	1,552	1,099	24
2009–10	4,438	1,630	1,107	34
2010–11	4,694	1,697	1,154	37
2011–12	4,870	1,839	1,215	35
2012–13	5,131	2,028	1,414	38
2013–14	5,336	2,211	1,547	43

<sup>(</sup>a) Constant price health expenditure for 1989–90 to 2013–14 is expressed in terms of 2013–14 prices.

<sup>(</sup>b) Individuals include both those with and without private health insurance.

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AIHW 2013. Expenditure on health for Aboriginal and Torres Strait Islander people 2010–11. Health and welfare expenditure series no. 48. Cat. no. HWE 57. Canberra: AIHW.

AIHW 2013. Expenditure on health for Aboriginal and Torres Strait Islander people 2010–11: an analysis by remoteness and disease. Health and welfare expenditure series no. 49. Cat. no. HWE 58. Canberra: AIHW.

Health expenditure grew from \$50.3 billion in 1989–90 to \$154.6 billion in 2013–14 in real terms (adjusted for inflation). Over the period, health expenditure grew much faster than inflation, the population and population ageing.

Health expenditure increased from 6.5% of gross domestic product in 1989–90 to 9.7% of gross domestic product in 2013–14.