

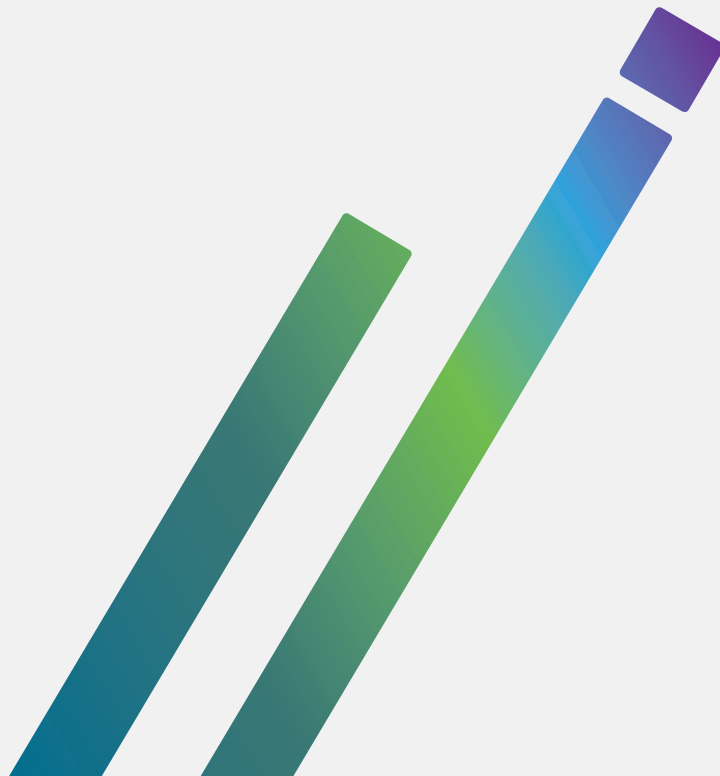


**Australian Government**  
**Australian Institute of  
Health and Welfare**



# Health expenditure Australia

## 2017–18



**AIHW**





**Australian Government**

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# **Health expenditure Australia**

**2017–18**

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# Contents

<b>Summary</b> .....	<b>iv</b>
<b>1 Introduction</b> .....	<b>1</b>
1.1 Health expenditure .....	2
1.2 Structure and funding of Australia's health system .....	2
1.3 Measuring health expenditure .....	3
1.4 About the estimates .....	5
<b>2 Australia's health spending: an overview</b> .....	<b>7</b>
2.1 Total health spending.....	7
2.2 Health spending per person.....	8
2.3 Health spending in each state and territory .....	9
2.4 The health sector relative to the economy .....	11
2.5 Government spending on health relative to taxation revenue .....	14
2.6 Personal health spending relative to income and wealth .....	15
<b>3 Spending trends by source</b> .....	<b>18</b>
3.1 Government sources.....	19
3.2 Non-government sources.....	27
<b>4 Trends by area of spending</b> .....	<b>32</b>
4.1 Hospitals .....	32
4.2 Primary health care .....	35
4.3 Referred medical services .....	36
4.4 Other services .....	37
4.5 Research.....	38
4.6 Capital expenditure .....	39
<b>5 Concepts, definitions and data sources</b> .....	<b>41</b>
5.1 Government funding sources.....	41
5.2 Non-government funding sources.....	44
5.3 Areas of expenditure .....	47
5.4 Price indexes (deflators) .....	52
<b>Acknowledgments</b> .....	<b>55</b>
<b>Abbreviations</b> .....	<b>56</b>
<b>Glossary</b> .....	<b>57</b>
<b>References</b> .....	<b>59</b>
<b>List of figures</b> .....	<b>61</b>

# Summary

Regular reporting of national health expenditure is vital to understanding Australia's health system and its relationship to the economy as whole. Expenditure estimates also provide information about how spending relates to changes such as the ageing population, increased chronic disease prevalence, and medicinal and technological developments.

## A snapshot of spending

In 2017–18, an estimated \$185.4 billion was spent on health goods and services in Australia. This equates to an average of approximately \$7,485 per person and constituted 10% of overall economic activity for this period.

After adjusting for inflation, total health spending (capital and recurrent expenditure) was 1.2% more than in the previous year. This was 2.7 percentage points lower than the average yearly growth rate over the decade (3.9%). Taking account of the impact one-off capital expenditure programs may have on growth rates, recurrent spending in 2017–18 showed a growth of 3.5% from 2016–17.

During 2017–18, around two-thirds of health spending was funded by governments: \$77.1 billion from the Australian Government and \$49.5 billion by state and territory governments. Government health spending represented 24.4% of government tax.

Non-government entities (including individuals, private health insurance providers, injury compensation insurers and other private sources) spent \$58.8 billion on health in 2017–18. Individuals were the largest contributor to this at \$30.6 billion.

## More is being spent on hospitals and primary health care

During 2017–18, spending increased on nearly all areas of health. The greatest increases in spending were for:

- hospitals, increasing by \$3.2 billion. The \$74.0 billion spent on hospitals was nearly 40% of total health expenditure. Of this, \$57.7 billion was spent on public hospitals and \$16.3 billion was spent on private hospitals.
- primary health care, increasing by \$1.5 billion. A total of \$63.4 billion was spent on primary health care in 2017–18. Of this, \$12.7 billion was spent on unreferral medical services and \$12.1 billion was spent on benefit-paid pharmaceuticals.

## Increasing per person funding by private health insurers

The decade has seen an overall increase in expenditure by private health insurance providers per person covered. In 2017–18, private health insurers spent an average of \$1,470 per person covered, compared with \$1,043 in 2007–08. During this time, the total number of people holding private health insurance decreased by almost 2 million.

Most of the \$16.6 billion spent by private health insurers was spent on private hospitals (\$8.2 billion) and primary health care (\$2.9 billion).

Across the states and territories, the lowest per person expenditure by private health insurers was in the Northern Territory and Australian Capital Territory, at approximately 60% of the national average.

# 1 Introduction

Regular reporting of national health expenditure is important to understanding Australia's health system and how spending relates to changes such as the ageing population, increased chronic disease prevalence, and medicinal and technological developments. Australia has a long history of national health expenditure reporting, which started with John Deeble's work in the late 1970s. The Australian Institute of Health and Welfare (AIHW) has been reporting on health expenditure for about 3 decades.

This edition of *Health expenditure Australia 2017–2018* presents estimates of the amount spent on health goods and services in Australia for the year 2017–18, and the decade leading up to this. The estimates in the report are based on data from the AIHW health expenditure database (HED) which is a collation of more than 50 data sources that capture health spending by governments, individuals, insurers and other private sources. These data are used for deriving the Australian National Health Accounts (ANHA), which are reported annually by the AIHW.

The introduction to this report covers key background information, including an overview of the flow of funds in the health sector. Chapter 2 focuses on high-level results and how health spending has changed relative to other aspects of the Australian economy. Chapter 3 looks at who pays for health goods and services, and Chapter 4 at what specifically is purchased in the health sector. Information about the HED and methods used by the AIHW to calculate spending estimates are provided in Chapter 5.

In this addition to the annual series, the data quality statement and all tables (including those previously printed in the appendices) are provided online in both spreadsheets and data visualisations (Box 1.1).

## **Box 1.1: Online information**

### **Data quality statement**

A data quality statement for the Health Expenditure Database 2017–18 can be found at: <https://meteor.aihw.gov.au/content/index.phtml/itemId/721415>.

### **Available data tables**

All tables referenced throughout this report are online at: <https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2017-18/data>.

The online material also includes additional, more detailed tables, as well as state and territory level information.

### **Interactive data visualisations**

Interactive charts showing: (a) overview of health spending in Australia; (b) sources of funds and areas of expenditure; (c) state and territory health spending; and (d) a more detailed visualisation of total health spending are available at: <https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2017-18/contents/data-visualisation>.

## 1.1 Health expenditure

Health expenditure is defined as spending on health goods and services, and includes: medical care; pharmaceuticals and medications; public health; rehabilitation; community health activities; health administration and regulation; health research; and capital formation.

Estimates of health expenditure include both government and non-government health spending. Non-government spending includes spending by entities such as individuals, private health insurance providers, and injury compensation insurers. However, the estimates do not currently include: spending on health-related activity by the Australian Defence Force; some local government spending; health spending by some non-government organisations, such as the National Heart Foundation and Diabetes Australia; and spending on the long-term health-care component of residential aged-care facilities.

Additionally, many forms of spending with an outcome that might indirectly impact health—such as the production of more nutritious food, road safety, or law and order—are not included.

Detailed information about the compilation of the health expenditure estimates by the AIHW are in 'Chapter 5 Concepts, definitions and data sources'.

## 1.2 Structure and funding of Australia's health system

The Australian health system comprises a number of health subsystems managed and funded by different entities, rather than a single unified system (Figure 1.1).

Australia's health care services are delivered, operated and funded by all levels of government (national, state and territory, and local) and the private sector (by both profit and not-for-profit organisations). The system comprises multiple components:

- public health—focuses on preventing ill health through activities such as promoting health literacy and health programs such as the National Immunisation Program
- primary health care—often a person's first contact with the health system and comprises a range of services such as general practice, allied health services, pharmacy and community health. It covers health care that is not related to a hospital visit, such as health promotion, prevention and early intervention. A defining feature of primary health care services is that they can be accessed without any additional processes or referrals
- specialist services—provide support to people with specific or complex health conditions and issues and generally require a referral from another health-care provider
- hospitals—deliver a range of services to admitted and non-admitted patients (outpatient clinics and emergency department care)
  - State and territory governments largely own and manage public hospitals
  - Private hospitals are owned and operated by for-profit companies or not-for-profit organisations.

At the national level, the Australian Government has primary responsibility for health programs such as the Medicare Benefits Schedule (MBS), the Pharmaceutical Benefits Scheme (PBS), regulation of health products, veterans' health, private health insurance policy and regulation and the health workforce. It also provides funding to the states and territories to support the provision of goods and services such as hospitals services and sets national tax policies that include health-related tax levies, rebates (such as the medical expenses tax rebate) and incentives (such as the private health insurance premium rebate).

The Australian Government uses funding from a mix of sources to fund health spending, including general revenue and a levy on individual taxable income.

The Australian Government and state and territory governments share the responsibility of funding and delivering a range of health services, including public health programs, community health services, health and medical research, Aboriginal and Torres Strait Islander health services, mental health services, health workforce education and training, and health infrastructure.

State and territory governments are responsible for the funding and management of public hospitals, community health services and public dental care and the regulation of health-care providers and private health facilities.

In some jurisdictions, local government funds and delivers health services such as environmental health programs, community and home-based health and support services, and public health activities.

Non-government health services can be funded through a mixture of payments by individuals at the point of service, private health insurance and government payments, such as through the MBS. Private health insurance in Australia covers hospital treatment as a private patient and/or ancillary health services (such as physiotherapy, optometry and dental services). This non-government sector also comprises expenditure by individuals and other funding that includes workers' compensation schemes, compulsory third-party motor vehicle insurers, funding for research from non-government sources and miscellaneous non-patient revenue that hospitals receive.

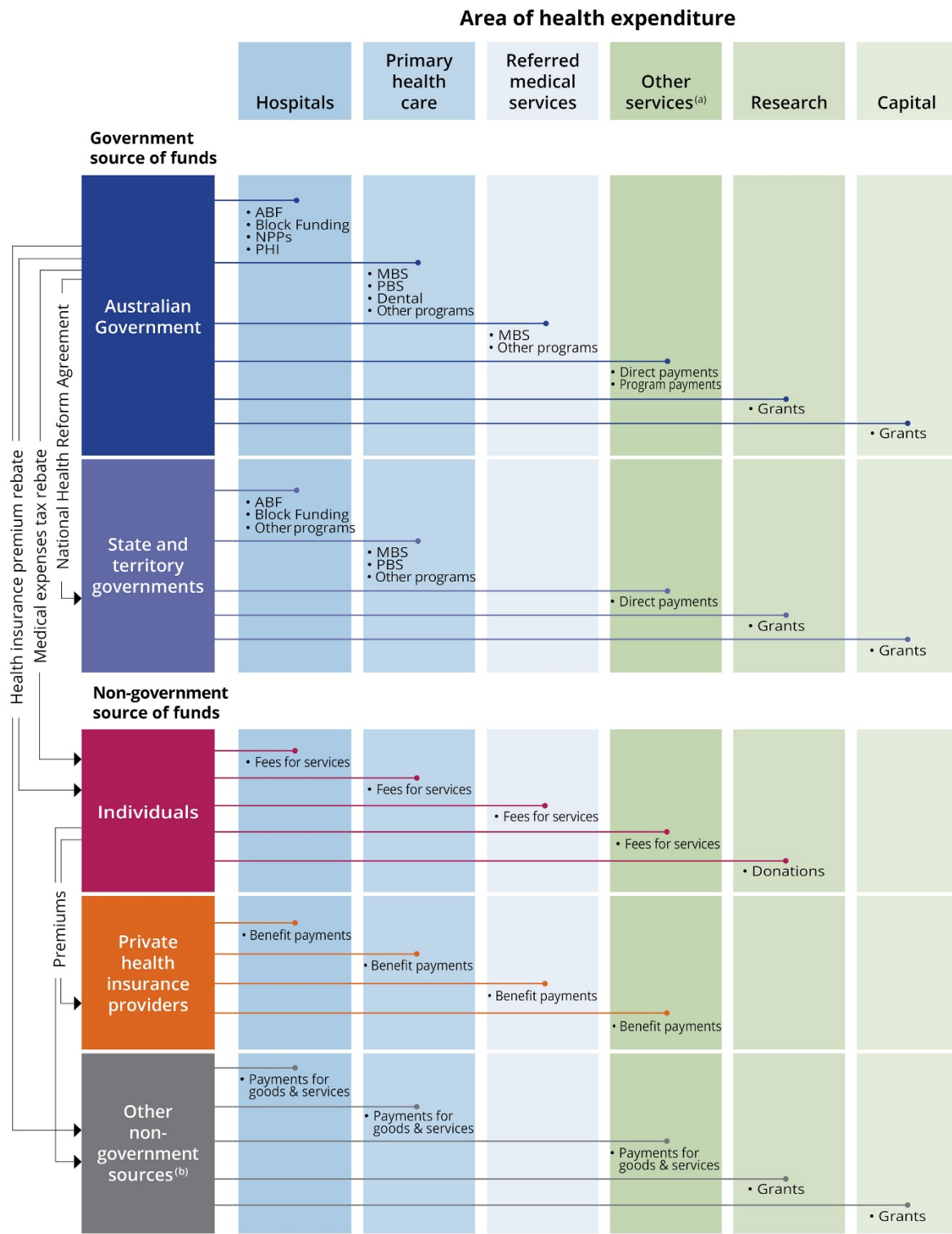
The complex structure of Australia's health system means that funds often pass through several entities before health providers (such as hospitals, general practices and pharmacies) use them to deliver goods and services. Funding of any 1 part of the system does not necessarily correlate with responsibility for its management or operation. For example, the Australian Government partially funds public hospitals, but is not responsible for managing or regulating them; this is the responsibility of state and territory governments.

### **1.3 Measuring health expenditure**

There are different approaches to reporting on health expenditure used by different organisations. For example, the estimates derived from the ANHA for this report are based on a different classification system to those the AIHW provides to the Organisation for Economic Co-operation and Development (OECD et al. 2017). As such, the estimates here may differ from those published elsewhere.

Additionally, the Australian Bureau of Statistics (ABS) produces financial data for the health sector as part of Australia's System of National Accounts (ABS 2016). The ABS uses the System of National Accounts classification system. This is an economy-wide classification system that is broader than just the health sector and uses different data sources and estimation methods.

**Figure 1.1: The structure of Australia's health system: funding sources and areas of expenditure**



ABF = Activity Based Funding    NPP = National Partnership Payment    MBS = Medicare Benefits Schedule  
 PBS = Pharmaceutical Benefits Scheme

(a) Other services include patient transport services, aids and appliances, and administration.

(b) Other non-government sources include injury compensation insurers and other sources of private income.

## 1.4 About the estimates

The health spending figures presented throughout this report represent the best estimates based on the available data and estimation methods. The results presented in this report are based on the HED finalised as of the 29 August 2019. Any revisions to data after this date will be reflected in online reporting.

### Prices

Apart from where otherwise indicated, throughout the report constant prices are used to present expenditure estimates. These allow for comparisons between years because they have been adjusted to account for the effect of inflation on the value of money over time. The constant price estimates in this report are based on 2017–18 financial year prices. Current prices represent the dollar amount spent in the year referred to (Box 1.2).

#### **Box 1.2: Presentation of the dollar value of expenditure estimates**

##### **Current prices**

Expenditure at current prices refers to expenditure that is not adjusted for movements in prices (inflation) from one year to another and therefore represents the dollar amount spent in that year.

Comparisons over time using figures expressed in current prices can be misleading due to the effect of inflation and the changing value of money over time. For example, \$1 billion spent in 2007–08 will have bought more health goods and services than \$1 billion spent in 2017–18.

Changes from year to year in the estimates of expenditure at current prices are referred to as 'nominal growth'. These reflect changes that come about because of the combined effects of inflation and increases in the volume of health goods and services consumed.

##### **Constant prices**

Constant prices account for inflation by removing the effect of changes in prices over time. This allows for comparisons of expenditures over different time periods to be made.

Constant price estimates indicate what expenditure would have been had the same prices applied across all years.

The process of generating constant prices is known as 'deflation' and price indexes (deflators) are used to calculate comparative prices (see Box 2.1). The result is a series of annual estimates of expenditure that are expressed in terms of the value of currency in a selected reference year.

The reference year used in this report is 2017–18.

Growth in expenditure, expressed in constant prices, is referred to as 'real growth' or 'growth in real terms' and represents changes in the real value of the amount of money spent in a given year.

### Type of spending

Expenditure can be broadly categorised as either recurrent or capital expenditure. Recurrent health expenditure is the spending on goods and services that are consumed (Box 1.3). Recurrent expenditure represents the bulk of health-related good and services (over 90% of total health expenditure) consumed by the Australian population. In contrast, capital expenditure relates to spending on infrastructure such as buildings and medical equipment.

Since capital investments tend to be variable from year to year, and often involve large expenditures, capital spending can influence overall growth rates considerably.

In this report, expenditure on hospitals, primary health care, referred medical services, other services and research all relate to recurrent expenditure in these areas. Capital expenditure can also be spent on the same areas, such as building new hospitals, but is reported as capital expenditure as a whole, not disaggregated by area of expenditure.

### **Box 1.3: Types of spending**

#### **Recurrent expenditure**

Recurrent expenditure is generally considered to be spending on goods and services consumed within a year that does not result in the creation or acquisition of fixed assets. Recurrent health spending includes: health goods (such as medications and health aids and appliances); health services (such as hospital, dental and medical services); public health activities; and other activities that support health systems (such as research and administration).

Capital consumption or depreciation is also included as part of recurrent expenditure.

#### **Capital expenditure**

Capital expenditure is spending on fixed assets such as new buildings (such as hospitals) or medical equipment (such as CT scanners), and represents the cost of resources that last more than a year.

## **Double counting**

The system of health funding in Australia means that the spending estimates are derived from many data sources, which often have overlapping scope. The AIHW has developed approaches to reduce the risk of double counting of the same funding. For example, when estimating total spending on hospital services in a year, the funds the Australian Government gives to states and territories is subtracted from the hospital expenditure reported by the states and territories to derive the amount that the states and territories spent from their own resources.

It should be noted that this method has limitations where the funds provided by the Australian Government are not all spent by the state or territory government in the financial year in which they were allocated. For example, in 2008–09, the Australian Government provided \$1.2 billion to the states and territories through the 5-year National Partnership Agreement on Health and Hospital Workforce Reform. This funding was offset against 2008–09 state and territory government expenditure, even though it may have been spent over several years.

## 2 Australia's health spending: an overview

This chapter presents estimates for health spending in Australia as a whole, on a per capita (that is, per person) basis and across the states and territories for 2017–18 and the preceding decade. It also examines how health spending has changed compared with economic activity more broadly, and income and wealth levels of the population.

### 2.1 Total health spending

Estimates for total health expenditure capture the national aggregate of all spending on health goods and services for both recurrent and capital purposes, including the medical expenses tax rebate.

In the 2017–18 financial year, Australia spent an estimated \$185.4 billion on health. In real terms, this represented a 1.2% growth in spending from the previous year—equating to an additional \$2.2 billion (Figure 2.1).

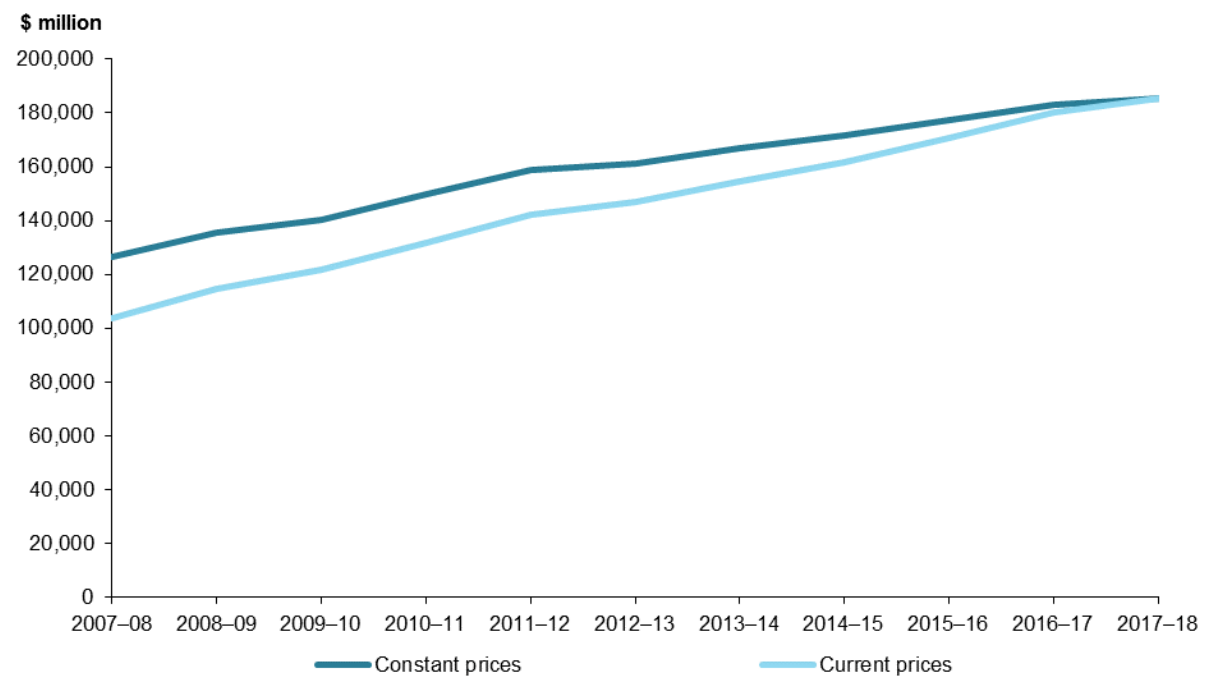
The main areas in which spending increased were:

- Hospitals, increased by \$3.2 billion
- Primary health care, increased by \$1.5 billion
- Referred medical services, increased by \$0.8 billion (tables A5 and A6).

Spending on capital declined by \$3.6 billion.

Real growth in expenditure in 2017–18 was slower than the average over the decade from 2007–08 (1.2% compared with 3.9%, respectively). It was also the lowest real growth over the decade. This was largely due to changes in capital expenditure, which decreased by 28.2% in 2017–18 because of a one-off capital injection in South Australia the previous year. Recurrent spending showed a growth of 3.5%, and although this was slower than the average annual change over the decade (3.9%), it was not as low as when spending on capital is included (Table 2.2).

**Figure 2.1: Nominal<sup>(a)</sup> and real<sup>(b)</sup> total health expenditure, 2007–08 to 2017–18**



(a) Nominal changes in expenditure refer to the change in current prices.

(b) Real changes in expenditure refer to the change in constant prices, expressed in terms of 2017–18 prices.

Source: AIHW health expenditure database (see Table 2.1).

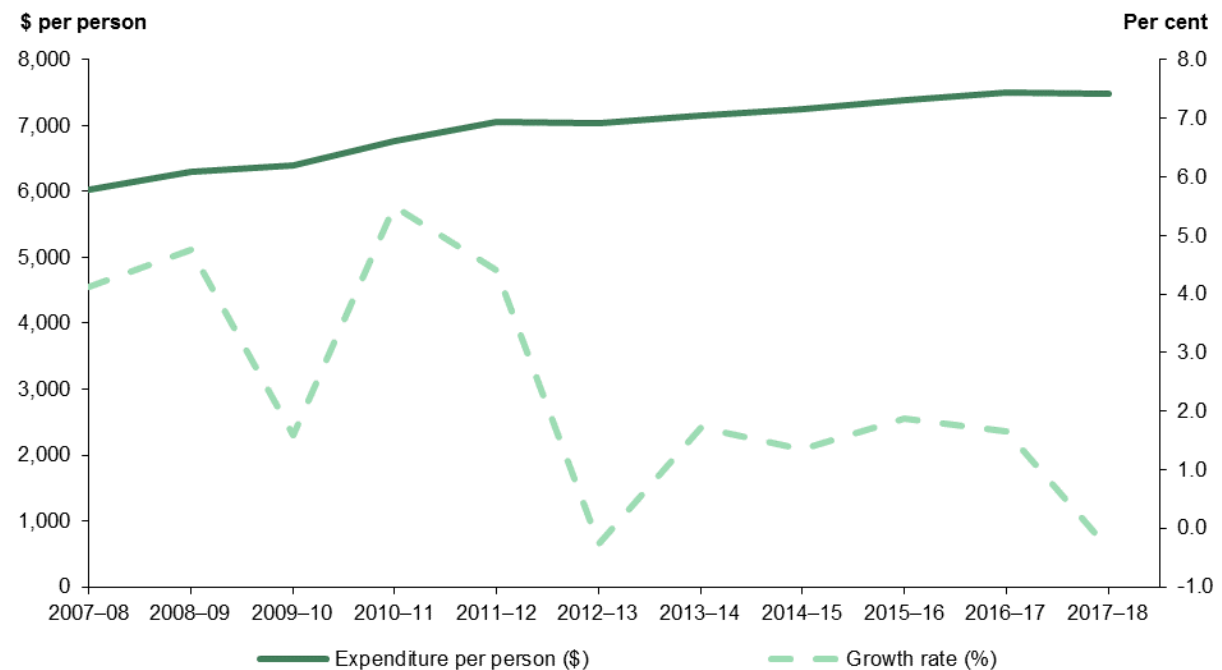
## 2.2 Health spending per person

Total spending per person takes into account the size of the population. This is a useful dimension to consider, because a large increase in spending between years may not translate to greater health spending per person if the population has also grown at a fast rate.

In 2017–18, average per capita spending on health was \$7,485. In real terms, this was \$27 (–0.4%) less per person than in the previous year (Figure 2.2).

The growth on per capita spending in 2017–18 was slower than the average yearly increase over the decade (2.2%), but consistent with the lower growth rates in the latter part of the decade. From 2007–08 to 2012–13, average growth was 3.2%, and from 2012–13 to 2017–18, 1.2%.

**Figure 2.2: Average total health expenditure per person<sup>(a)</sup>, and annual growth rates, constant prices<sup>(b)</sup>, 2007–08 to 2017–18**



(a) Based on ABS estimated resident population (see Table 5.1).

(b) Constant price health expenditure is expressed in terms of 2017–18 prices.

Sources: AIHW health expenditure database; Australian Bureau of Statistics (2019a) (see Table 2.3).

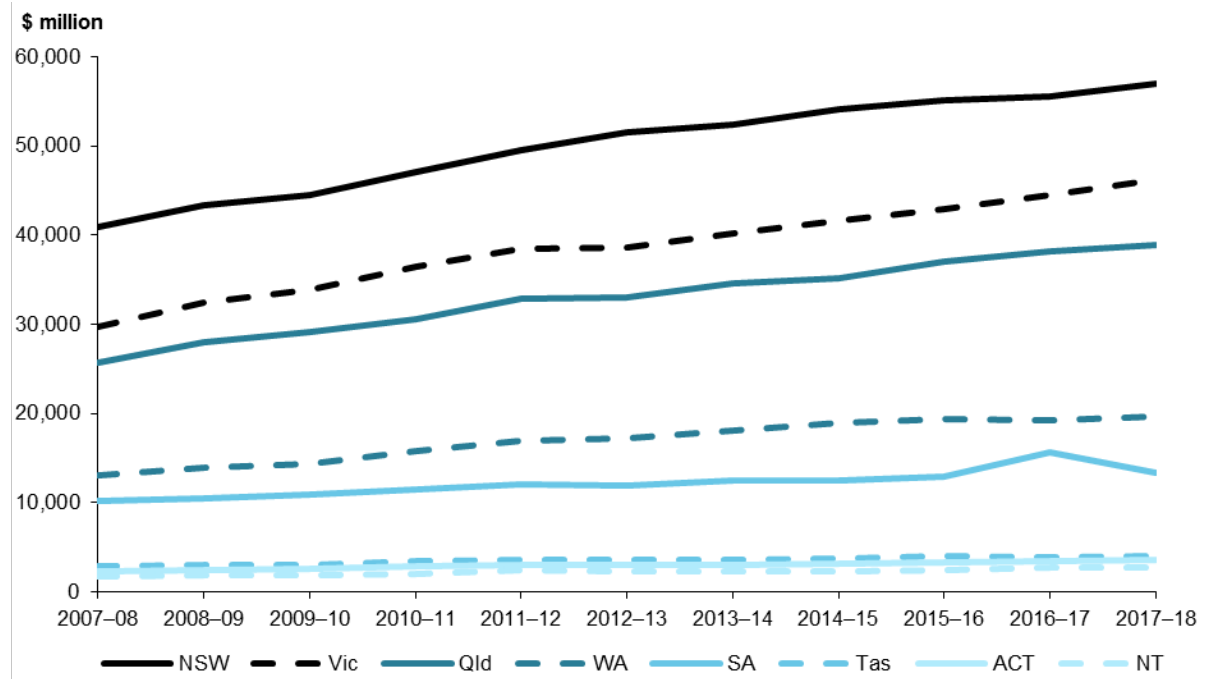
## 2.3 Health spending in each state and territory

Of total health expenditure in 2017–18, more than half (55.7%) was spent in New South Wales (NSW) (\$57.1 billion) and Victoria (\$46.2 billion) combined—these states also represented over half (around 58%) of the Australian population (Figure 2.3; Table 5.1).

From 2016–17 to 2017–18, growth in total spending ranged from –14.3% in South Australia (SA) to 3.7% in Victoria. It should be noted that the decrease in expenditure in SA was as a result of the large capital spend in the previous year associated with the new Royal Adelaide Hospital, and that recurrent expenditure alone in SA increased 5.7% (Table 2.4).

For all states and territories, growth was slower in the second half of the decade to 2017–18 compared with the first. Variability in annual growth in expenditure was greatest in SA over the decade, ranging from –14.3% (2017–18) to 21.3% (2016–17).

**Figure 2.3: Total health expenditure for each state and territory, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in 2017–18 prices.

Note: Spending increased in 2016–17 in South Australia due to a one-off capital expenditure project.

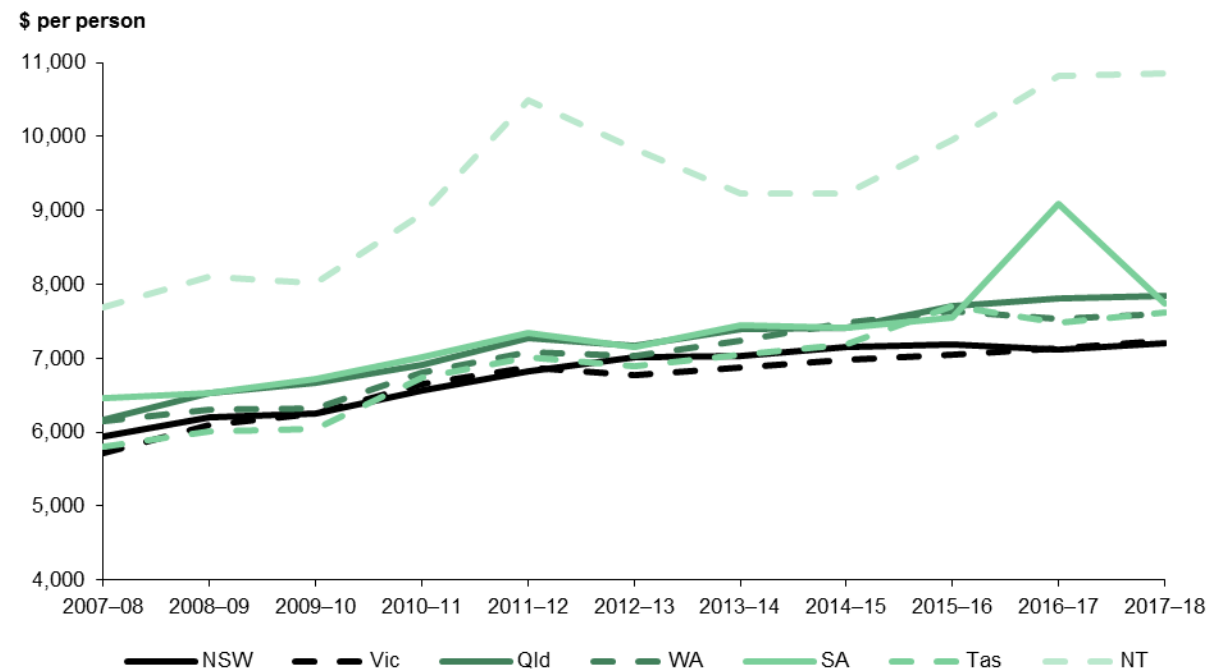
Source: AIHW health expenditure database (see Table 2.4).

In 2017–18, average per capita health spending was similar across all states and territories, except for the Northern Territory where average spending was \$10,857 per person, compared with the national average of \$7,485 (Figure 2.4).

Per capita expenditure grew in 2017–18 in all states and territories except for SA (due to the capital spend in 2016–17 that inflated growth in the previous year).

All states and territories had real growth in per person expenditure in 2017–18 that was lower than the 10-year average annual rate for that jurisdiction (Table 2.5).

**Figure 2.4: Average total health expenditure per person<sup>(a)</sup> for each state and territory, constant prices<sup>(b)</sup>, 2007–08 to 2017–18**



(a) Based on ABS estimated resident population (see Table 5.1).

(b) Constant price health expenditure is expressed in terms of 2017–18 prices.

**Notes**

1. The ACT per person figures are not calculated because the ACT include large expenditures for services to NSW residents; therefore, the ACT population is not an appropriate denominator.
2. Spending increased in 2016–17 for South Australia due to a large one-off capital expenditure project.

Sources: AIHW health expenditure database; Australian Bureau of Statistics (ABS 2019a) (see Table 2.5).

## 2.4 The health sector relative to the economy

### Health prices

The difference between health inflation and general inflation provides an insight into whether prices in the health sector are rising slower or faster than in the broader economy (Box 2.1).

In this report, excess health inflation has been calculated using the implicit price deflator (IPD) for Gross National Expenditure (GNE) to represent inflation for the general economy and the total health price index, calculated by the AIHW using ABS data, for health inflation. However, it should be noted that excess health inflation can vary depending on the approach selected to measure the economy and the methodology used in calculating the IPD. For illustrative purposes, data have also been presented for the IPD for gross domestic product (GDP) (Table 2.6).

### **Box 2.1: Inflation and deflators**

Inflation refers to changes in prices over time. Inflation can be positive (that is, prices are rising over time and the same volume of goods cost more, so money is losing value) or negative (the same volume of goods are costing less).

Inflation is measured using price indexes, also known as deflators. These show the amount a price has changed over time relative to a base year.

The reference year, or base year, for the deflators used in this report is 2017–18.

#### **Health inflation**

Health inflation is a measure of the average rate of change in prices within the health goods and services sector of the economy.

For the health sector, the analysis is based on AIHW's total health price index.

Different deflators are calculated for different parts of the health sector.

The total health price index and industry-wide indexes are listed in Box 5.3. Table 5.3 provides the values and corresponding growth rates for each of these indexes over the decade to 2017–18.

#### **General inflation**

General inflation refers to the average rate of change in prices throughout the economy over time. It should be noted that there are different ways to measure the economy, as well as many methods for deriving deflators. The specific deflator can affect whether prices in the health sector appear to have risen slower or faster than the general inflation rate (excess health inflation).

In this report, the measure used for this is the implicit price deflator (IPD) for Gross National Expenditure (GNE). GNE is a measure of the value of final expenditures on the goods and services purchased in the economy, and the IPD gives an indication of changes in the purchase price of these goods. The GNE IPD includes imports but excludes exports.

The IPD for Gross Domestic Product (GDP) has also been discussed to illustrate the impact of different measures. The GDP IPD measures changes in the total value of goods and services that Australian residents produce, including exports but excluding imports.

The ABS produces figures for deflators in the national accounts.

#### **Excess health inflation**

Excess health inflation is the amount by which the rate of health inflation exceeds general inflation. Excess health inflation will be positive when health prices are rising more rapidly than prices generally throughout the economy and negative when the general level of prices throughout the broader economy are rising more rapidly than health prices.

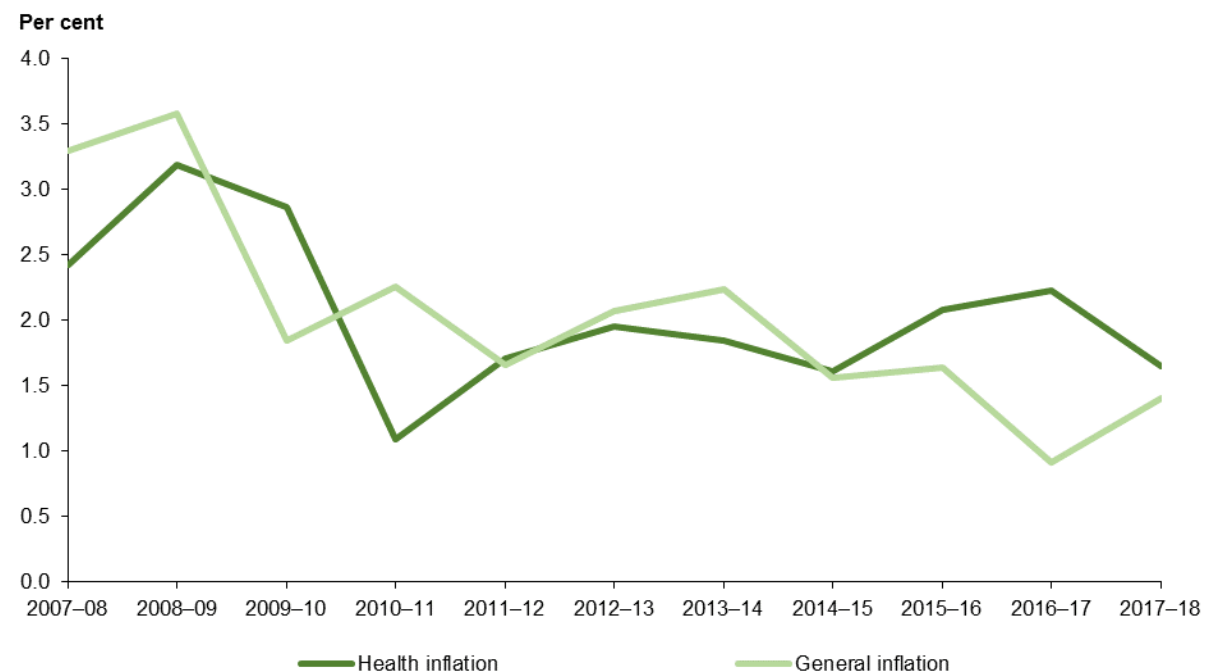
From 2016–17 to 2017–18, health inflation was 1.65% and general inflation, using the GNE IPD, was 1.40%. As such, excess health inflation was 0.25%, indicating that prices of health goods and services were rising faster than prices in the general economy (Figure 2.5).

When using IPD for GDP to represent economy-wide inflation, excess health inflation in the year 2017–18 was –0.16% (Table 2.6).

Over the decade to 2017–18, prices in the health sector were relatively stable compared with prices in the broader economy. This resulted in varying levels of excess health inflation, ranging from 1.31% in the year to 2016–17, to –1.14% in the year to 2010–11, as a result of the global financial crisis (GFC). The average excess health inflation over the decade was 0.11%.

Both measures showed similar average annual growth rates from 2007–08 to 2017–18, which indicated little disparity between change in prices in health compared with overall inflation. Excess health inflation grew on average 0.11% and 0.08% per year for the GNE and GDP IPDs, respectively.

**Figure 2.5: Annual health inflation<sup>(a)</sup> and general inflation<sup>(b)</sup> rates, 2007–08 to 2017–18**



(a) Health inflation based on the AIHW Total Health Price Index.

(b) General inflation based on the IPD for GNE.

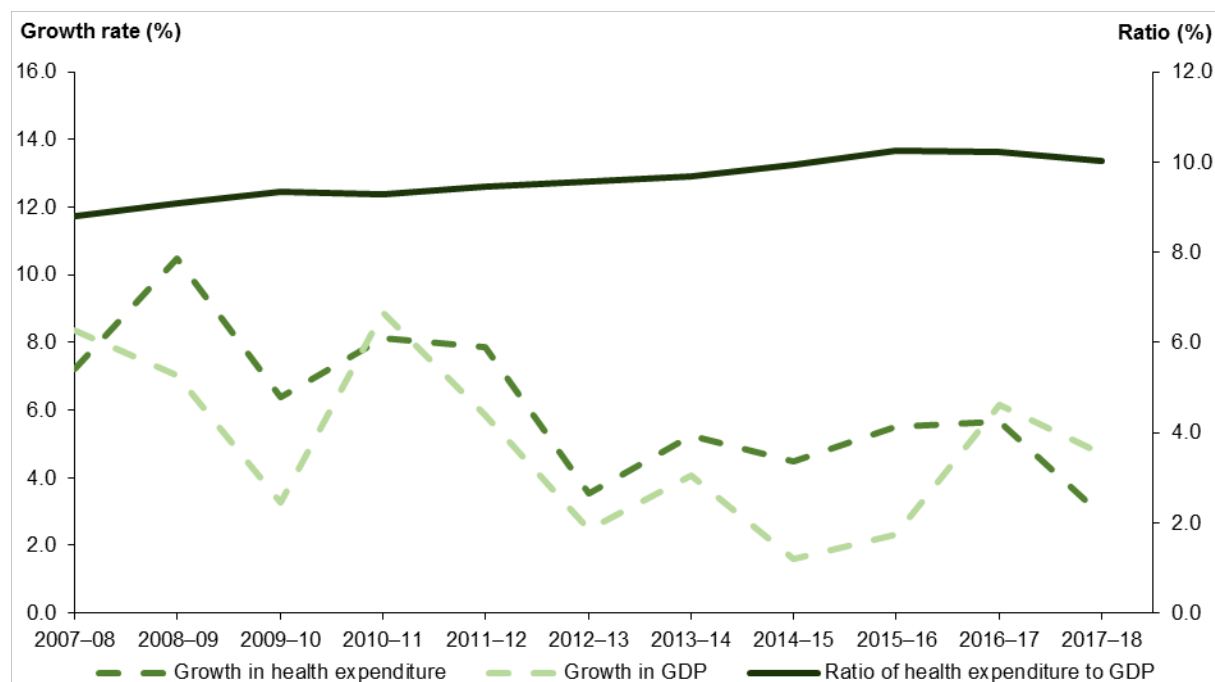
Sources: AIHW health expenditure database; Australian Bureau of Statistics (ABS 2019b) (see Table 2.6).

## Health spending and Gross Domestic Product

The ratio of health expenditure to GDP, showing the proportion of total economic activity represented by the health sector, provides an indication of the contribution of health spending to the overall economy.

In 2017–18, health spending accounted for 10% of GDP in Australia. Over the decade, the lowest growth in the health spending to GDP ratio was in 2017–18, where it declined by 0.2 percentage points (Figure 2.6).

**Figure 2.6: Ratio of total health expenditure to GDP, and annual growth rates, current prices, 2007–08 to 2017–18**



Sources: AIHW health expenditure database; Australian Bureau of Statistics (ABS 2019b) (see Table 2.7).

From 2016–17 to 2017–18, nominal GDP increased at a greater rate than the increase in nominal health expenditure: 4.7% compared with 2.9% (Figure 2.6). Together with the fact that the GDP deflator was only slightly higher than health inflation in the same period, this indicates that the increase in the volume of goods and services produced in the broader economy was larger than the increase in the amount of health goods and services purchased.

Over the decade to 2017–18, annual real growth in health expenditure generally remained higher than GDP growth. In the first 5 years of the decade the growth in health expenditure was on average 2.4 percentage points greater than GDP growth. This fell to an average of 0.2 percentage points in the 5 years that followed (Table 2.8).

## 2.5 Government spending on health relative to taxation revenue

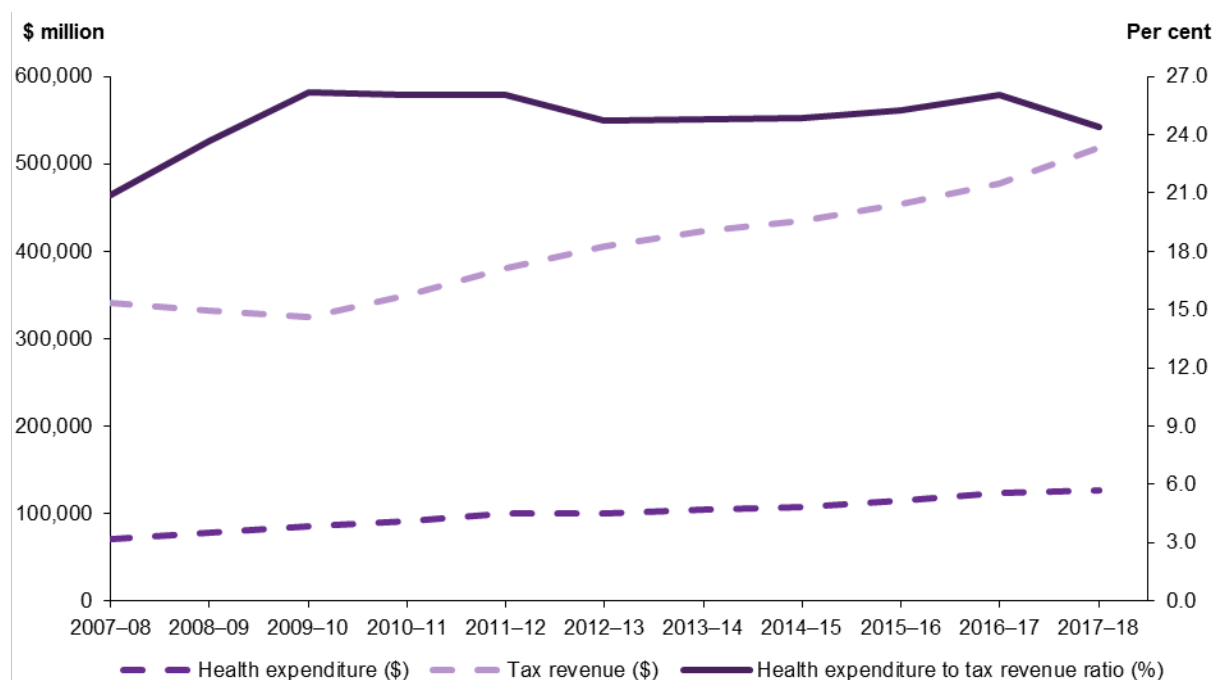
Taxation revenue is a major source of income used by governments to fund public services, including health spending. The Australian Government raises revenue through taxing individuals and businesses with taxes such as personal income tax, the Goods and Services Tax (GST) and company tax. State and territory governments receive funds from the Australian Government, but also collect taxes, such as stamp duty on the purchase of a house.

During 2017–18, expenditure on health by all governments was \$126.7 billion, which represented 24.4% of government tax revenue (Figure 2.7). This was a decline from 2016–17, where the health expenditure to tax revenue was 26.0% and was attributable to government tax revenue growing faster than government health spending (8.7% compared with 2.0% over the year 2017–18, in nominal terms). More specifically, Australian Government health expenditure grew by 3.4% while tax revenue increased by 12.6% and

state and territory government health expenditure decreased by 0.1% while tax revenue grew 3.5% (tables 3.2 and 3.7).

Over the decade to 2017–18, tax revenue growth was less consistent than the growth in government health expenditure, largely as a result of the GFC, which impacted government revenues. Over the 10 years, average annual nominal growth for tax revenue was 4.3% compared with 5.9% for health expenditure.

**Figure 2.7: Ratio of government health expenditure to government tax revenue, current prices, 2007–08 to 2017–18**



Sources: AIHW health expenditure database; Australian Bureau of Statistics (ABS 2019c) (see Table 2.9).

## 2.6 Personal health spending relative to income and wealth

In this section the estimate for personal out-of-pocket health expenses is represented by individual spending and non-government expenditure that includes some private spending in hospitals and donations for health research, but excludes rebates from injury compensation insurers; private health insurance funds; and the MBS.

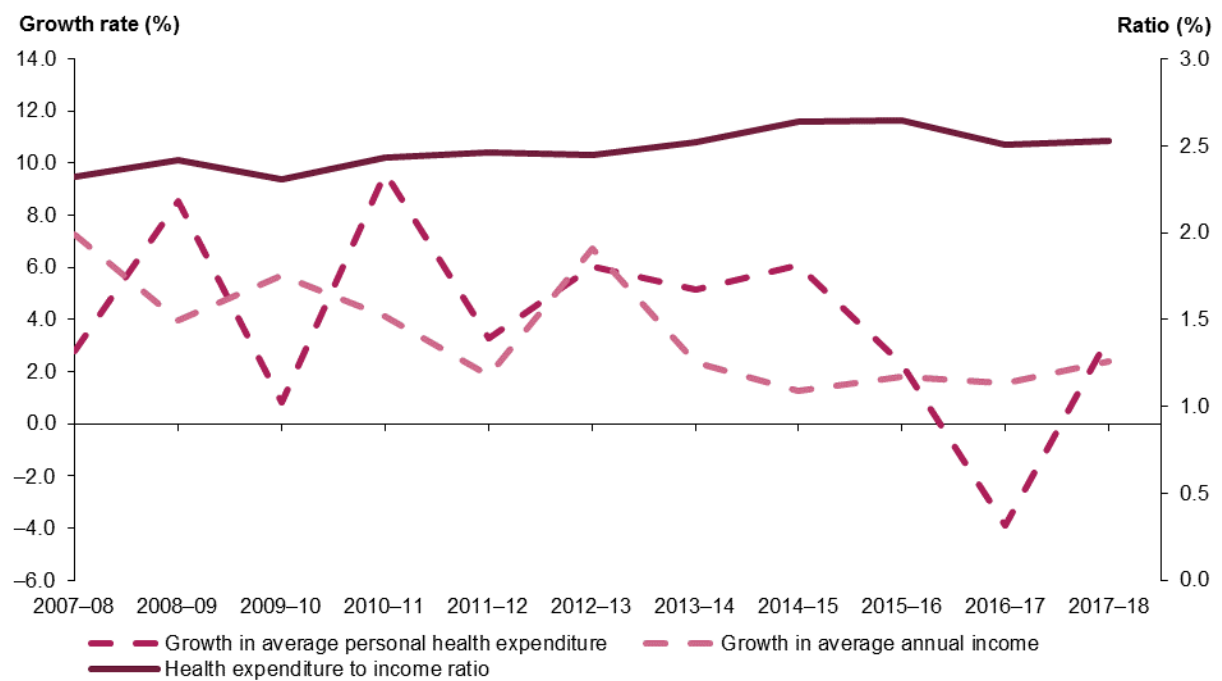
To estimate how personal health spending has compared with the financial resources available to individuals, 2 measures are considered:

- income is used to provide a sense of how health spending compared with average earnings throughout the year: that is, how much was spent on health compared with how much was earned in that year
- net worth is used to provide a sense of how health spending compared with the overall wealth position of individuals in a given year. This provides a more long-term sense of how health spending compared with personal wealth, particularly in circumstances where health costs may be too high to be able to be met by regular income.

In 2017–18, personal out-of-pocket health costs amounted to an average of \$1,578 per person, which was 2.5% of average annual income. In spite of fluctuations in the growth of

both average personal spending and average annual income, there was a general increase in the proportion of health spending to income over the decade (Figure 2.8).

**Figure 2.8: Growth in average income<sup>(a)</sup>, average personal health expenses per person<sup>(b)</sup> and health expenditure to income ratio, current prices, 2007–08 to 2017–18**



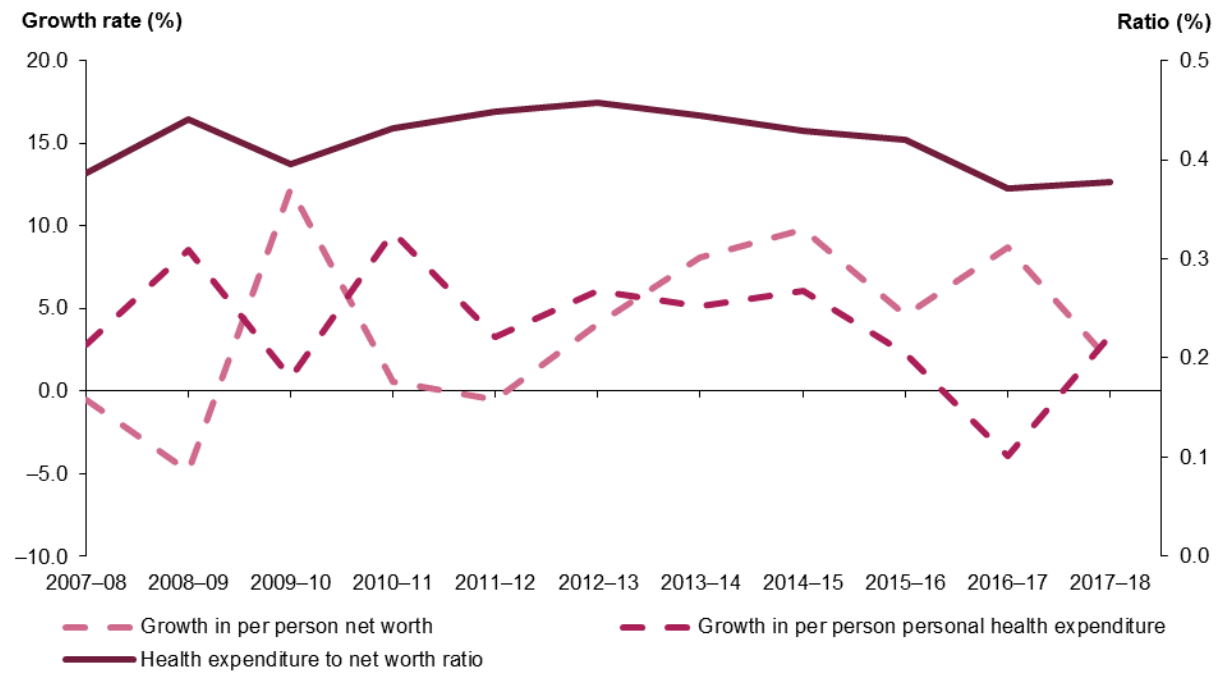
(a) Refers to annualised average weekly earnings.

(b) Based on ABS estimated resident population (see Table 5.1).

Sources: AIHW health expenditure database; Australian Bureau of Statistics (2018a, 2019a) (see Table 2.10).

In 2017–18, personal spending on health represented on average 0.4% of individual net worth. This did not change much over the decade (Figure 2.9). On average, per person net worth grew nominally by 4.3% per year, while per person personal out-of-pocket costs grew by 4.1%. In 2017–18, per person net worth grew by 1.8%, while per person personal spending grew by 3.3% in nominal terms.

**Figure 2.9: Growth in individual net worth, per capita<sup>(a)</sup> personal health expenses and health expenditure to net worth ratio, current prices, 2007–08 to 2017–18**



(a) Based on ABS estimated resident population (see Table 5.1).

Sources: AIHW health expenditure database; Australian Bureau of Statistics (2018b, 2019a) (see Table 2.11).

### 3 Spending trends by source

During 2017–18, total health expenditure was \$185.4 billion. Of this, over two-thirds (68.3% or \$126.7 billion) was government funded (41.6% by the Australian Government and 26.7% from state and territory governments), with the remaining 31.7% funded by non-government sources (Figure 3.1).

Between 2007–08 and 2017–18, the proportion of funding from the government sector fluctuated, with:

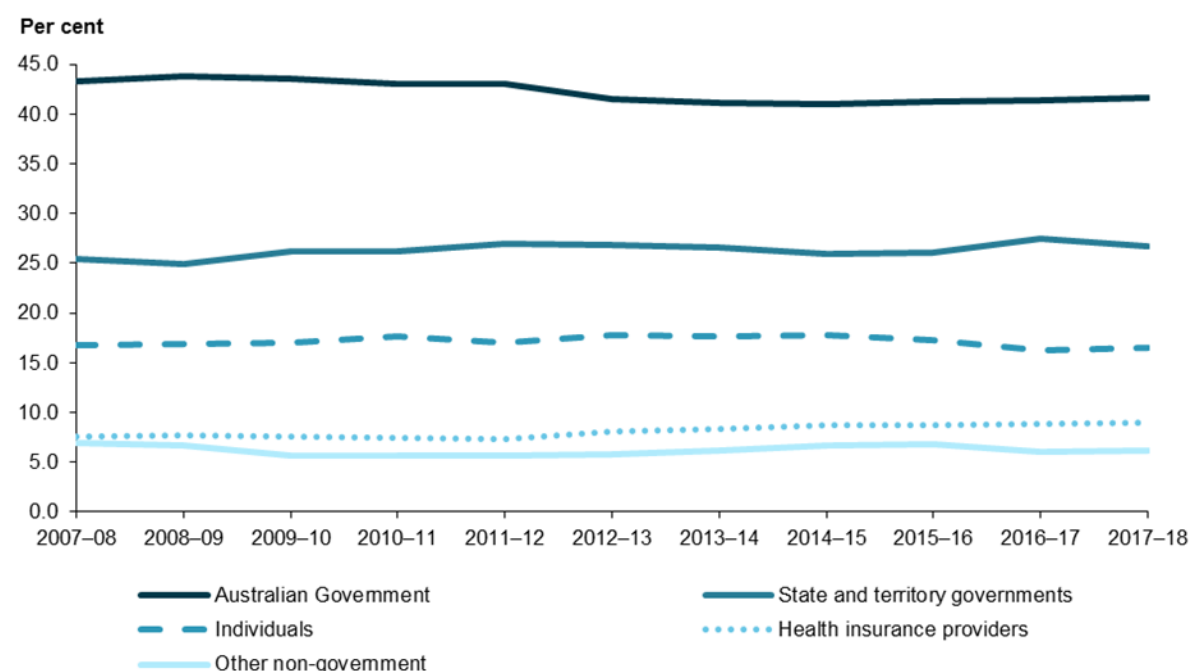
- spending funded by the Australian Government ranging between 41.0% in 2014–15 to 43.8% in 2008–09.
- the proportion of funding from state and territory governments varying between 24.9% in 2008–09 to 27.5% in 2016–17 (Table 3.1).

Non-government sources contributed about a third (31.7% or \$58.8 billion) of total health spending in 2017–18. The contribution by individuals to total health spending was 16.5% (\$30.6 billion); below the annual average for the decade of 17.1%.

Expenditure by private health insurance providers was \$16.6 billion in 2017–18. The proportion of funding by private health insurers ranged between 7.4% in 2011–12 to 9.0% in 2017–18. This may have been, at least in part, a result of the introduction of means testing of the private health insurance premium rebate in 2012, which shifted funding from the Australian Government to private health insurance providers (Box 5.2).

Other non-government sources were responsible for 6.2% (\$11.5 billion) of total health expenditure in 2017–18; this proportion was consistent with the yearly average for the decade.

**Figure 3.1: Proportion of total health expenditure, by source of funds, current prices, 2007–08 to 2017–18**



Note: Other non-government refers to expenditure on health goods and services by injury compensation insurers and other sources of private income.

Source: AIHW health expenditure database (see Table 3.1).

## 3.1 Government sources

### Australian Government expenditure

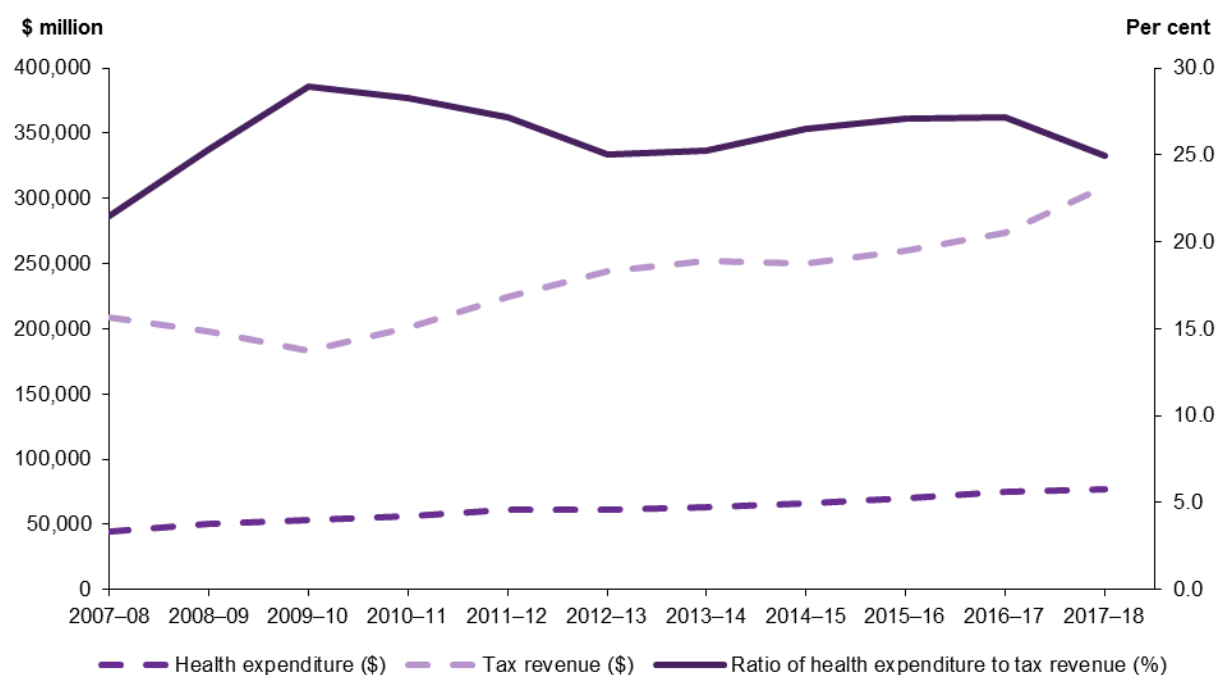
In 2017–18, Australian Government expenditure was \$77.1 billion, representing a \$1.8 billion real increase (2.3%) from the previous year (Table 3.1). Real growth averaged 3.4% per year in the decade to 2017–18, with the 2.3% increase in 2017–18 the slowest growth in this period except for the year to 2012–13, when there was a decline in spending (–1.8%).

The slowing of Australian Government expenditure between 2016–17 and 2017–18 was due partly to a decrease in spending on the Department of Veterans' Affairs (–5.4%) and on private health insurance premium rebates (–1.9%) (Table 3.3). There were also declines, though smaller, in spending on private hospitals, research, public health, patient transport services and the medical expenses tax rebate (tables A5 and A6).

### Spending relative to taxation revenue

The \$77.1 billion health expenditure in 2017–18 by the Australian Government represented 25.0% of tax revenue, which was approximately 2 percentage points lower than in 2016–17. Unlike the previous year, when nominal growth for both health spending and tax revenue were similar, in 2017–18 tax revenue had increased by 12.6% but health spending by 3.4% resulting in a smaller ratio (Figure 3.2).

**Figure 3.2: Ratio of Australian Government health expenditure to Australian Government tax revenue, current prices, 2007–08 to 2017–18**



Sources: AIHW health expenditure database; Australian Bureau of Statistics (ABS 2019c) (see Table 3.2).

### Spending programs

Australian Government spending in 2017–18 (Figure 3.3) comprised:

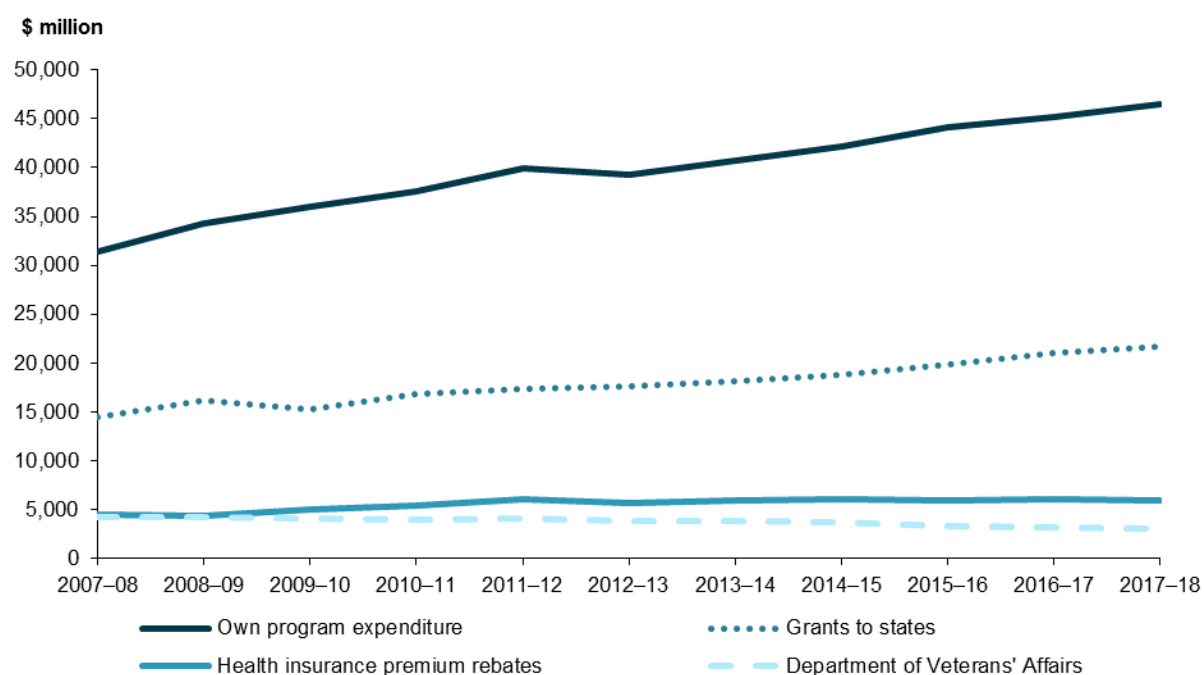
- direct Australian Government expenditure (\$46.5 billion, or 60.3% of Australian Government funding)—mostly administered through the Australian Government

Department of Health on programs for which the government has responsibility, such as the MBS and PBS

- the National Health Reform funding (\$21.7 billion, or 28.2%), including the Activity Based Funding (ABF) arrangements, and National Partnership Payments (NPPs) to states and territories
- rebates and subsidies for privately insured persons under the national *Private Health Insurance Act 2007* (\$5.9 billion, or 7.6%)
- Department of Veterans' Affairs (DVA) funding for goods and services provided to eligible veterans and their dependants (\$3.0 billion, or 3.9%)
- the medical expenses tax rebate (\$12 million (\$0.01 billion), or 0.02%).

The 2.3% increase in Australian Government expenditure between 2016–17 and 2017–18 can be attributed to increases in both own program expenditure (an increase of \$1.3 billion) and funding to the states and territories through National Health Reform funding and NPPs (an increase of \$0.7 billion). All other types of Australian Government expenditure decreased in real terms in the most recent year.

**Figure 3.3: Australian Government health expenditure, by program, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

**Notes**

1. Grants to states include the Commonwealth Government National Health Reform funding and some national partnership payments.
2. Spending on the medical expenses tax rebate is not included.
3. Tax revenue has been deducted from the Australian Government own program expenditure.

Source: AIHW health expenditure database (see Table 3.3).

Since 2007–08, Australian Government expenditure on DVA decreased by \$1.3 billion (an average decrease of 3.4% each year). Expenditure on other spending programs increased over the decade in real terms, with own program expenditure experiencing the greatest increase of \$15.0 billion (an average increase of 4.0% each year), followed by grants to states and territories with an increase of \$7.2 billion (yearly average increase of 4.1%).

## Area of spending

During 2017–18, over one-third (36.4%) of total Australian Government health spending was for primary health care (\$28.1 billion) (Figure 3.4). Of this, both unreferral medical services (mainly visits to a general practitioner) and pharmaceuticals that were subsidised through PBS contributed \$10.6 billion each, and spending on other health practitioners constituted \$2.2 billion (Table A6). Expenditure on public hospitals was the next largest area of Australian Government health expenditure at \$22.7 billion, followed by referred medical services at \$14.4 billion. The Australian Government spent only a small amount on health-related capital expenditure: \$120 million (\$0.1 billion).

The rise in total Australian Government expenditure between 2016–17 and 2017–18 was mostly due to an increase of \$0.8 billion on primary health care, \$0.6 billion on referred medical services and \$0.5 billion on public hospitals (Figure 3.4). Apart from some smaller and regional hospitals, which receive Block Funding, public hospital funding is tied to ABF under the National Health Reform Agreement (NHRA) which adjusts funding levels with the number and mix of patients treated. Since 2014–15 under this agreement, the Australian Government was to pay 45% of the efficient growth in the volume of services, subject to a yearly funding growth cap of 6.5% (Box 5.1). Since this time, the increase in Australian Government expenditure on public hospitals has been an average of 5.5% per year. Before this, there was greater fluctuation in the growth of funds from year to year, with an average of 2.9% per year from 2008–09 to 2013–14.

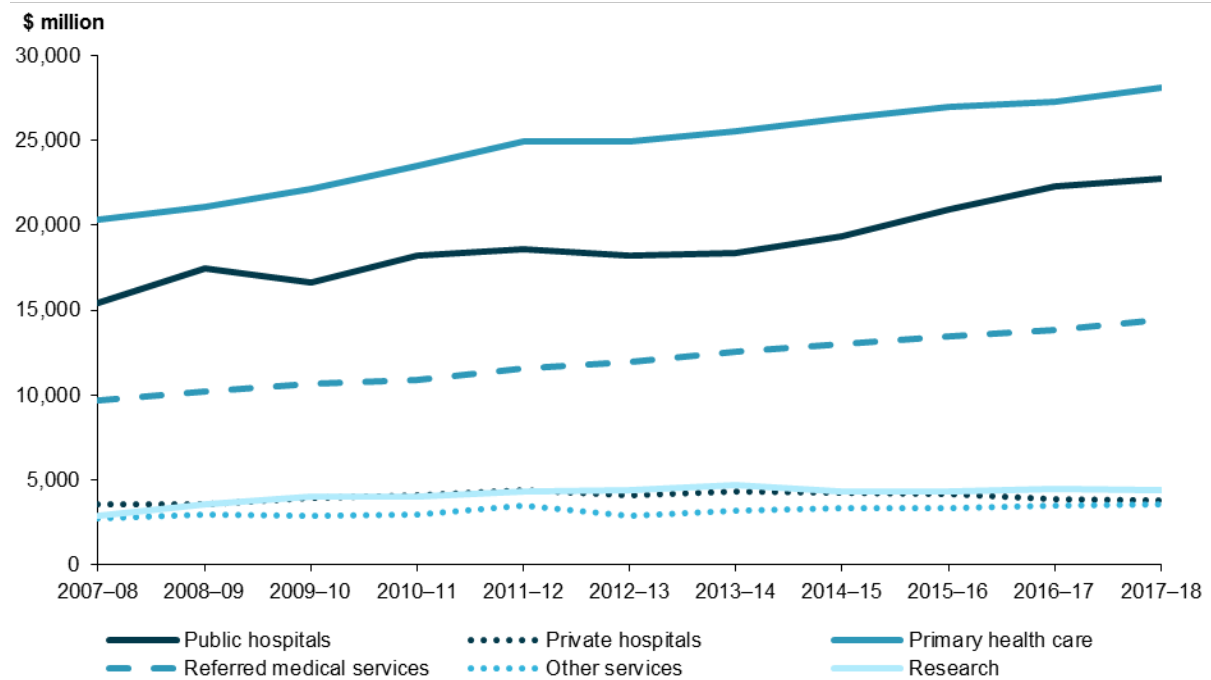
From 2016–17 to 2017–18, spending declined on:

- private hospitals, by \$143 million (around \$0.1 billion)
- research, by \$47 million (\$0.05 billion) medical expenses tax rebate, by \$30 million (\$0.03 billion)
- patient transport services, by \$11 million (\$0.01 billion)
- public health, by \$5 million (\$0.01 billion) (tables A5 and A6).

Over the decade since 2007–08, primary health care (\$7.8 billion) and public hospitals (\$7.3 billion) received the largest real increases in funding from the Australian Government. In real terms, these areas had an average yearly increase of 3.3% and 3.9% respectively (Figure 3.4).

In 2017–18, private hospitals received an estimated real increase of \$0.17 billion compared with 2007–08: an annual average increase of 0.5% (Figure 3.4).

**Figure 3.4: Australian Government health expenditure, by area of expenditure, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Note: Spending on the medical expenses tax rebate and capital are not included.

Source: AIHW health expenditure database (see Table 3.4).

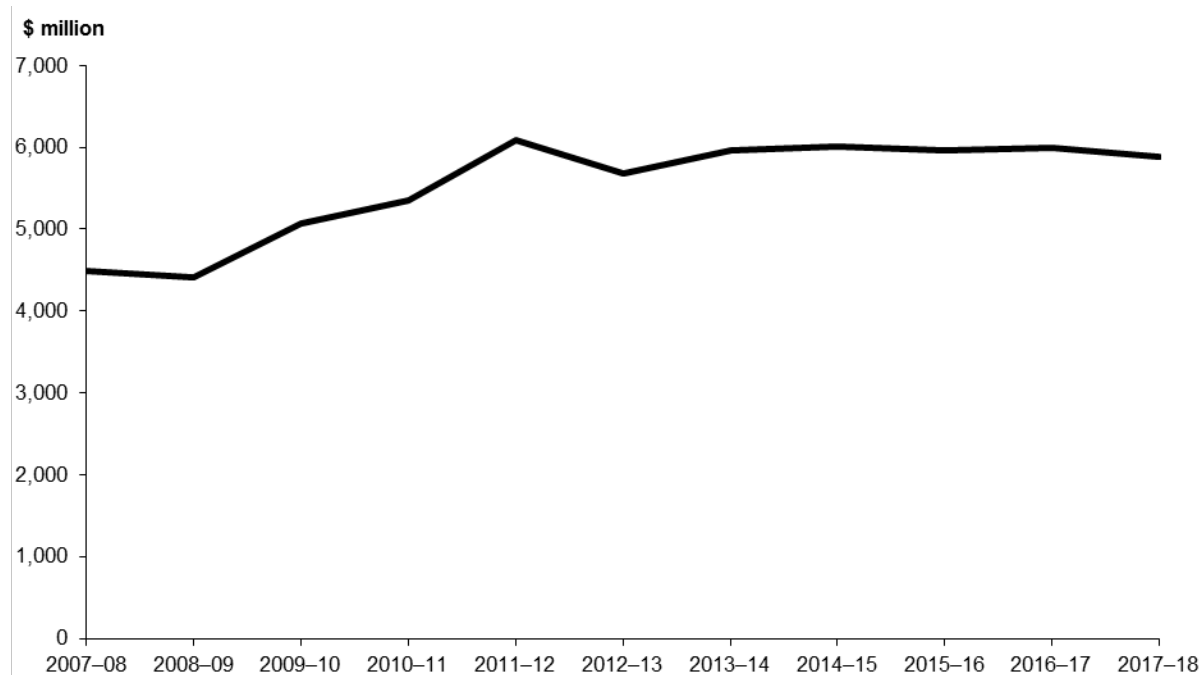
### Private health insurance premium rebates

In 2017–18, the rebate for private health insurance premiums paid by the Australian Government was similar to payments the previous year: \$5.9 billion compared with \$6.0 billion (Figure 3.5).

From 2007–08 to 2011–12, there was a 35.9% increase in spending on premium rebates, equating to a \$1.6 billion increase in expenditure. In the following year, 2012–13, after the Australian Government introduced means testing of the rebate for premiums, there was a 6.8% decrease in payments.

With subsequent changes to the thresholds combined with changes to how the rebates were calculated (Box 5.2), the average rate of annual growth from the introduction of means testing of the rebate was –0.6%, representing a decrease of spending of \$216 million (\$0.2 billion) from 2012–13 to 2017–18. However, spending overall on the private health insurance premium rebate in 2017–18 still remained around \$1.4 billion higher than in 2007–08.

**Figure 3.5: Health insurance premium rebates, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in 2017–18 prices.

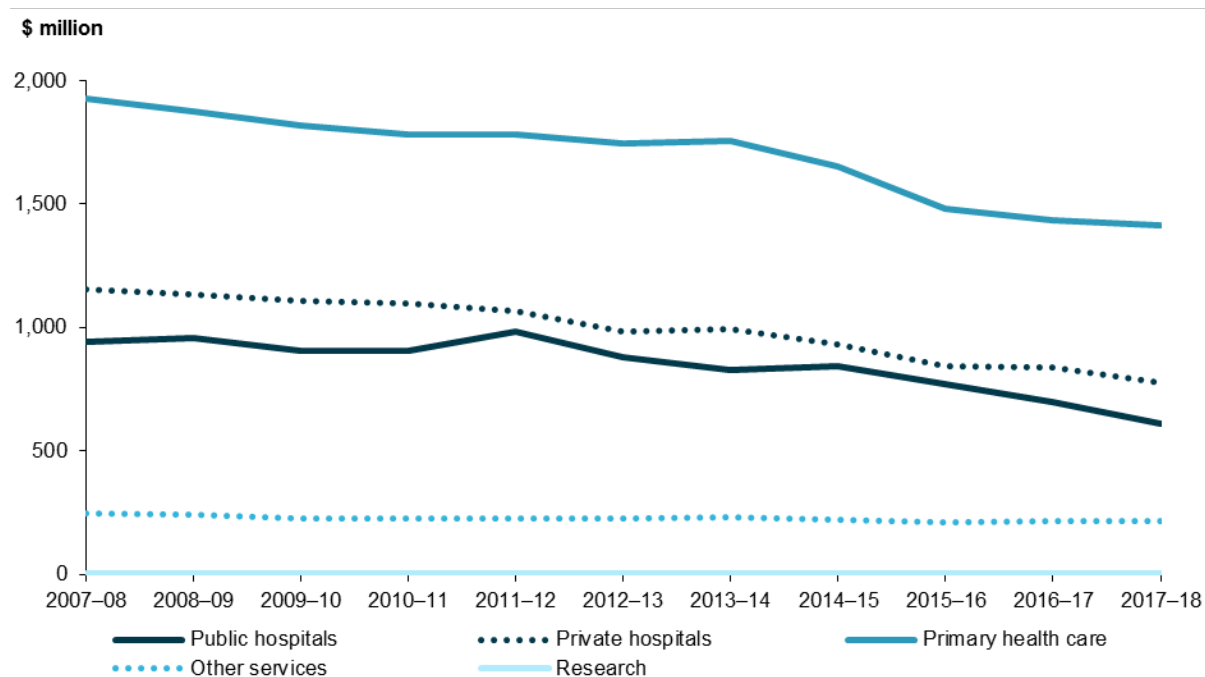
Source: AIHW health expenditure database (see Table 3.5).

### Department of Veterans' Affairs expenditure

In 2017–18, expenditure by DVA was \$3.0 billion, which was mostly spent on primary health care (\$1.4 billion) and hospitals (\$1.4 billion). Total expenditure by DVA decreased by 5.4% in the year 2017–18, from \$3.2 billion in 2016–17. This was mainly attributable to a \$0.2 billion (9.9%) decrease in spending on hospital services (Figure 3.6).

Over the decade to 2017–18, there was a consistent decline in DVA expenditure on hospitals, with public hospitals decreasing by an average of 4.2% per year and private hospitals by 3.9%. DVA expenditure on primary health care also decreased in real terms by a yearly average of 3.1%, accompanied by an average decrease in expenditure on other services by 1.4%. Research was the only area of spending with an upward trending average growth over the decade, increasing on average by 3.5% per year. However the research component of DVA spending amounted only to around \$2 million (\$0.002 billion) each year.

**Figure 3.6: Department of Veterans' Affairs health expenditure, by area of expenditure, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Note: Primary health care excludes public health and all other medications.

Source: AIHW health expenditure database (see Table 3.6).

## State and territory government expenditure

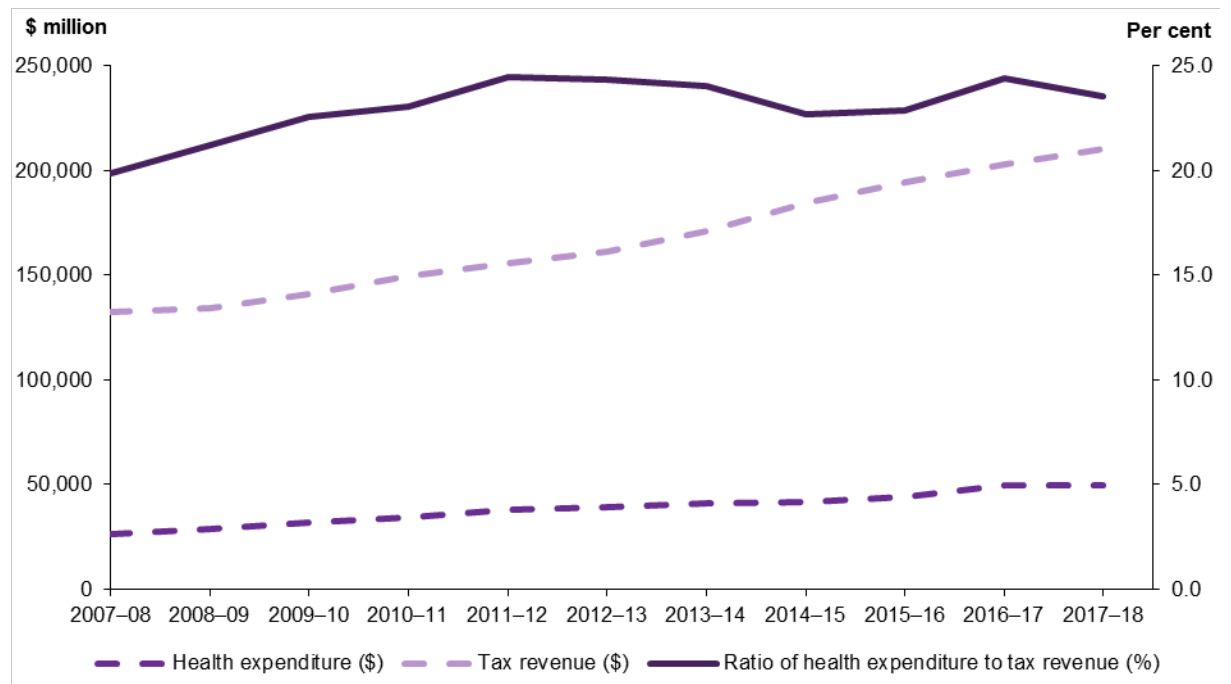
In 2017–18, state and territory governments spent \$49.5 billion on health. This was a decrease of 2.5% (\$1.3 billion) from 2016–17 (Table 3.1). While spending in some areas increased in real terms between 2016–17 and 2017–18, the decrease in total expenditure by state and territory governments was attributable to decreases in spending on capital (–49.1%), research (–5.1%) and private hospitals (–1.2%) (Table 3.9). However, it should be noted that over the decade as a whole, these areas showed positive average annual growth rates at 5.4%, 4.7% and 10.8%, respectively.

### Spending relative to taxation revenue

During 2017–18, health spending by state and territory governments was 23.6% of state and territory government tax revenue (Figure 3.7). This was almost 1 percentage point lower than the previous year, reflecting that tax revenue growth was faster than the growth in health spending.

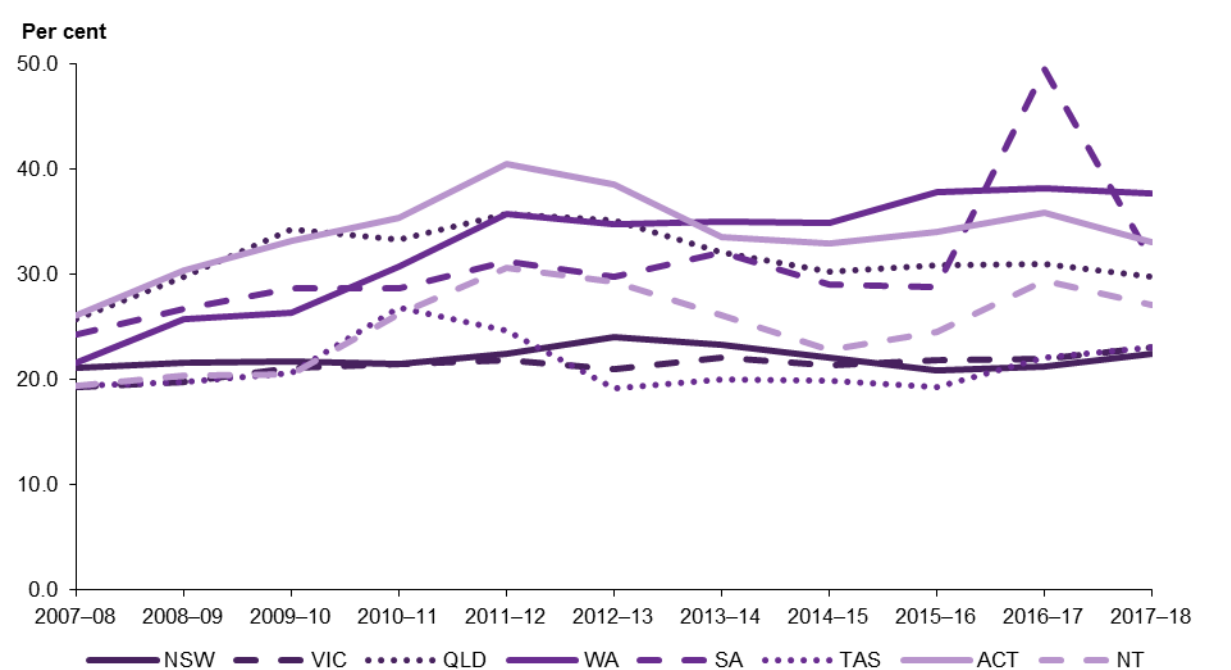
In 2017–18, the ratio of health expenditure to tax revenue varied across states and territories, with the highest ratio in Western Australia (WA) (37.8%) and the lowest in NSW (22.5%) (Figure 3.8). Although there were some fluctuations in health spending compared with tax revenue for each jurisdiction between 2007–08 and 2017–18, the 2017–18 results were generally close to the average over the decade. The exception to this was WA, where the 2017–18 ratio of 37.8% was higher than the average for the decade of 32.6%. A peak in the ratio of health expenditure to tax revenue for South Australia in 2016–17 was due to a one-off capital expenditure on the Royal Adelaide Hospital.

**Figure 3.7: Ratio of state and territory government health expenditure to state and territory government tax revenue, current prices, 2007–08 to 2017–18**



Note: The ratio increased in 2016–17 due to a one-off capital expenditure project in South Australia.  
Sources: AIHW health expenditure database; Australian Bureau of Statistics (2019c) (see Table 3.7).

**Figure 3.8: Ratio of health expenditure to tax revenue for each state and territory government, current prices, 2007–08 to 2017–18**



Note: The ratio increased in 2016–17 for South Australia due to a one-off capital expenditure project.  
Sources: AIHW health expenditure database; Australian Bureau of Statistics (2019c) (see Table 3.8).

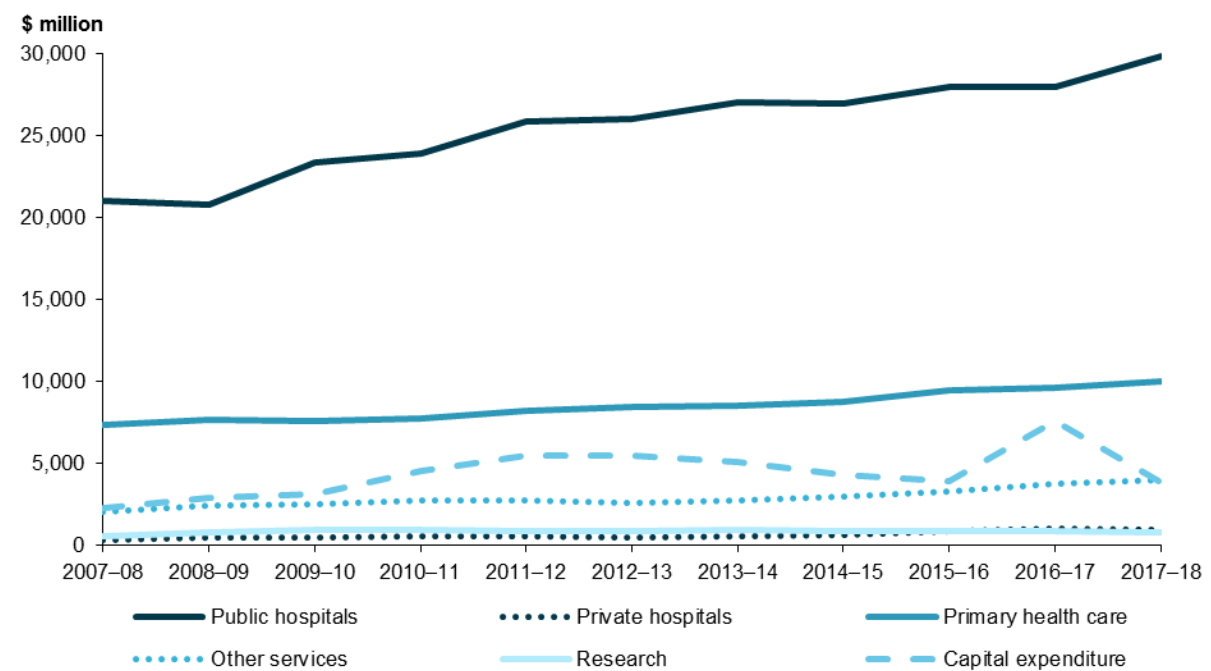
## Area of spending

In 2017–18, state and territory governments spent \$30.8 billion (62.3%) on hospitals, with most of this (\$29.9 billion) on public hospitals. Another \$10.0 billion (20.2%) was spent on primary health care; \$7.8 billion of which was in community health services (Figure 3.9; Table A6).

In 2017–18, state and territory expenditure on public hospital services increased by \$1.9 billion (6.7%); other services increased by \$0.22 billion (5.8%) and primary health care by \$0.37 billion (3.9%). Expenditure on private hospitals and research both decreased by \$0.01 billion (–1.2%) and \$0.04 billion (–5.1%), respectively. Expenditure on capital also decreased by \$3.7 billion (–49.1%).

Since 2007–08, expenditure by state and territory governments increased in real terms across all main areas of expenditure. The greatest average yearly growth in expenditure over the decade was on private hospitals (10.8%), followed by other services (6.9%), capital investments (5.4%) and research (4.7%). Growth in spending by state and territory governments varied the most for private hospitals (ranging almost 40 percentage points over the decade). Expenditure on public hospitals in 2017–18 was almost 1.5 times higher in real terms than in 2007–08.

**Figure 3.9: State and territory government health expenditure, by area of expenditure, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

### Notes

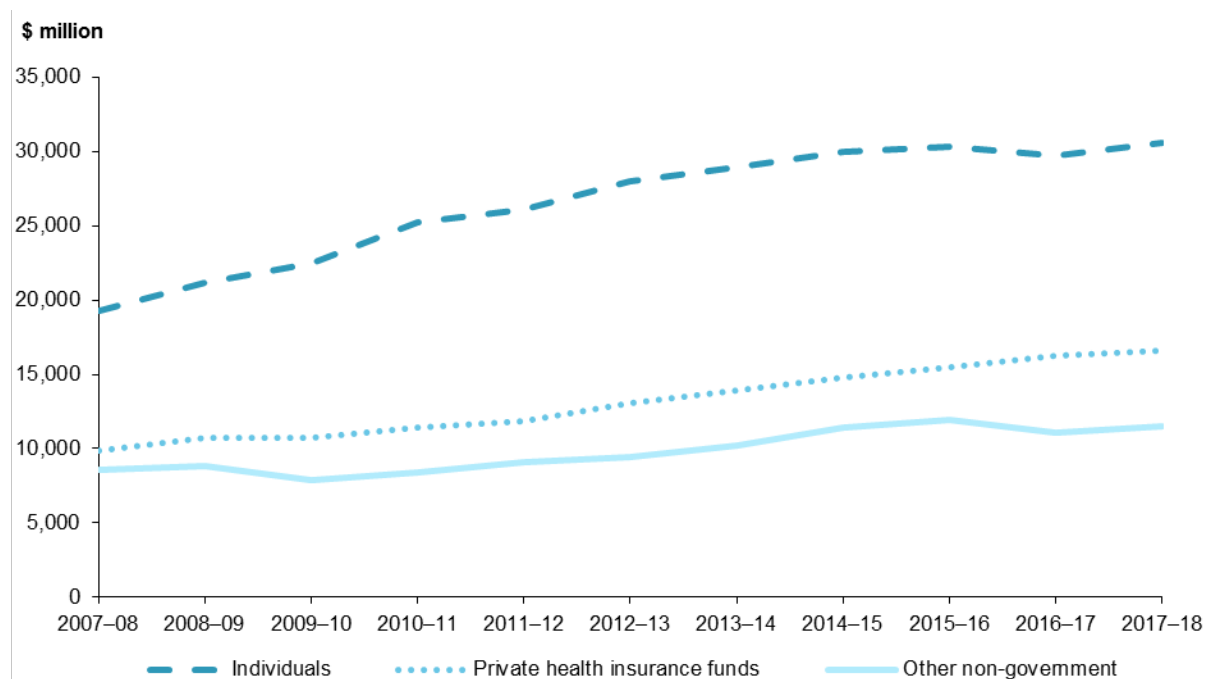
1. There is no state and territory government spending on referred medical services.
2. Primary health care excludes unreferred medical services, benefit-paid pharmaceuticals and all other medications.
3. Other services exclude aids and appliances.
4. State and territory government capital expenditure increased in 2016–17 due to a one-off capital expenditure in South Australia.

Source: AIHW health expenditure database (see Table 3.9).

## 3.2 Non-government sources

Non-government sources of expenditure include individuals, private health insurance providers and other non-government sources, such as injury compensation insurance providers, non-government sector capital expenditure; private spending on private hospitals and research. In 2017–18, \$58.8 billion was spent on health by non-government sources (Figure 3.10). At \$30.6 billion (52.1%), individuals contributed over half the non-government health expenditure, private health insurance providers contributed \$16.6 billion (28.3%) and other non-government sources contributed \$11.5 billion (19.6%).

**Figure 3.10: Non-government health expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

### Notes

1. Funding by private health insurance funds excludes the Australian Government private health insurance premium rebate.
2. Other non-government refers to expenditure on health goods and services by injury compensation insurers and other sources of private income. All non-government sector capital expenditure is also included here, because the funding sources of non-government capital expenditure are not known. If funding sources were known, this capital expenditure would be spread across all non-government funding sources.

Source: AIHW health expenditure database (see Table 3.10).

## Individual spending

Before receiving any subsidies from the medical expenses tax rebate, which was \$12 million in 2017–18, individuals spent \$30.6 billion on health goods and services: 3.0% more than the previous year and 54.8% more in real terms than was spent 10 years earlier in 2007–08 (Table 3.11).

In 2017–18, individuals spent \$9.4 billion (30.8%) on medications that were not subsidised through the PBS, including over-the-counter medications, vitamins and health-related products. Another \$6.0 billion (19.6%) was spent on dental services and \$4.0 billion (13.1%) on both referred and unreferred medical services.

From 2016–17 to 2017–18, the greatest increases in expenditure for individuals were an additional \$0.6 billion on hospitals and \$0.3 billion on medications (other than those that were PBS subsidised). Expenditure on community and public health services and other health practitioners declined by \$0.1 billion (–36.4%) and \$0.2 billion (–7.0%), respectively. Together these accounted for only 7.9% of individual expenditure in 2017–18. Individual expenditure on aids and appliances also decreased slightly between 2016–17 and 2017–18 by \$0.01 billion (–0.4%).

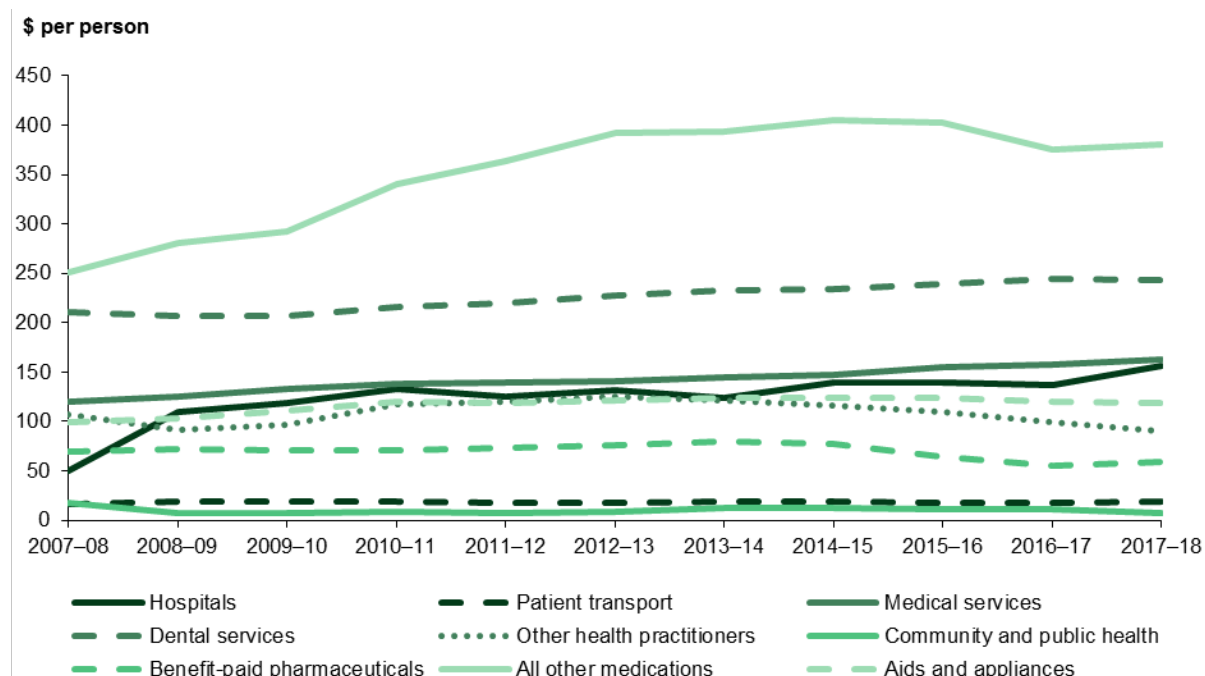
Compared with 2007–08, the greatest increases in expenditure in 2017–18 were on hospitals and medications not eligible for subsidy through the PBS. Individuals spent nearly 4 times as much on hospitals in 2017–18 with expenditure rising from \$1.0 billion to \$3.9 billion and expenditure on non-benefit paid medications increasing from \$5.3 billion to \$9.4 billion.

### Per person individual health spending

Health expenditure by individuals equated to an average of \$1,235 per person in 2017–18. This was made up of: \$380 spent on non-subsidised medications; \$243 on dental services; \$162 on both referred and unreferred medical services; \$157 on hospital services; \$118 on aids and appliances; \$91 on health practitioners, such as practice nurses, chiropractors, optometrists and physiotherapists; and \$59 on medications that were partly subsidised by the PBS (Figure 3.11).

This annual per person expenditure was \$17 higher than in 2016–17. The real growth in annual per person expenditure over the year was 1.4%, which was lower than the decade yearly average of 2.8%, but higher than the average growth over the past 5 years since 2012–13 (–0.1%).

**Figure 3.11: Average<sup>(a)</sup> per person individual health expenditure, by area of expenditure, constant prices<sup>(b)</sup>, 2007–08 to 2017–18**



(a) Based on ABS estimated resident population (Table 5.1).

(b) Constant price health expenditure is expressed in terms of 2017–18 prices.

Note: Medical services refers to both referred and non-referred medical services.

Sources: AIHW health expenditure database; Australian Bureau of Statistics (2019a) (see Table 3.12).

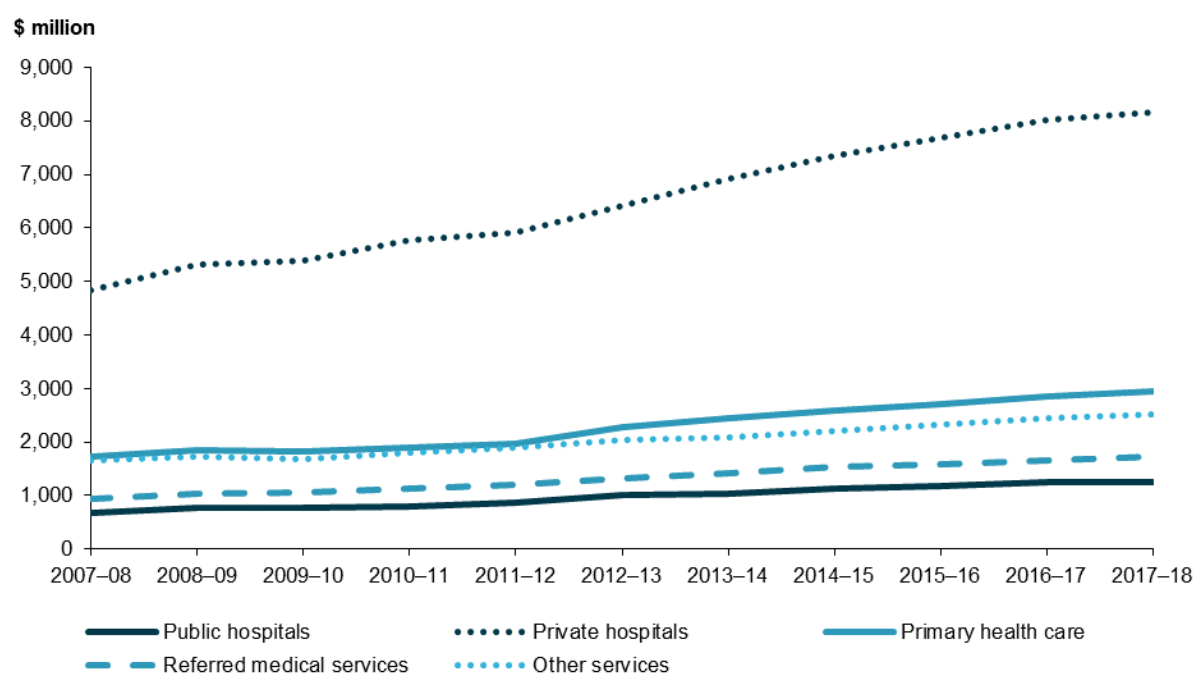
## Private health insurance provider spending

Individuals can choose to take out private health insurance for hospital services, ancillary services or both. In 2017–18, over 11 million Australians were covered through private health insurance for hospital treatment (APRA 2019). Private health insurance also covers general treatment for non-medical health services not covered by the MBS, such as dental, physiotherapy and optometry services, when they occur outside a hospital admission.

During 2017–18, providers of private health insurance financed \$16.6 billion (9.0%) of total health expenditure. Over half (\$9.4 billion) was for hospital services, with private hospitals receiving most of this—an estimated \$8.2 billion (Figure 3.12). Approximately \$2.9 billion was spent on primary health care services, with \$2.0 billion of this being for dental services (Table A6).

Expenditure by health insurance providers grew by \$0.4 billion in the year 2017–18. This was a real growth of 2.3%, which was the slowest year of growth since 2009–10 (0.2%). Growth in health insurance provider expenditure in 2017–18 was approximately 3 percentage points below the average annual growth rate of 5.4% per year from 2007–08 to 2017–18.

**Figure 3.12: Private health insurance provider health expenditure, by area of expenditure, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Note: This shows the payments made by private health insurance providers over each year, and does not necessarily reflect the actual services provided during that year.

Source: AIHW health expenditure database (see Table 3.13).

The introduction of income testing in July 2012 to the private health insurance premium rebate reduced the subsidies paid by the Australian Government on private health insurance premiums. Consequently, the health insurance provider's share of total expenditure increased from 7.4% in 2011–12 to 9.0% in 2017–18; the Australian Government's share fell by just over 1 percentage point over this period (Table 3.1).

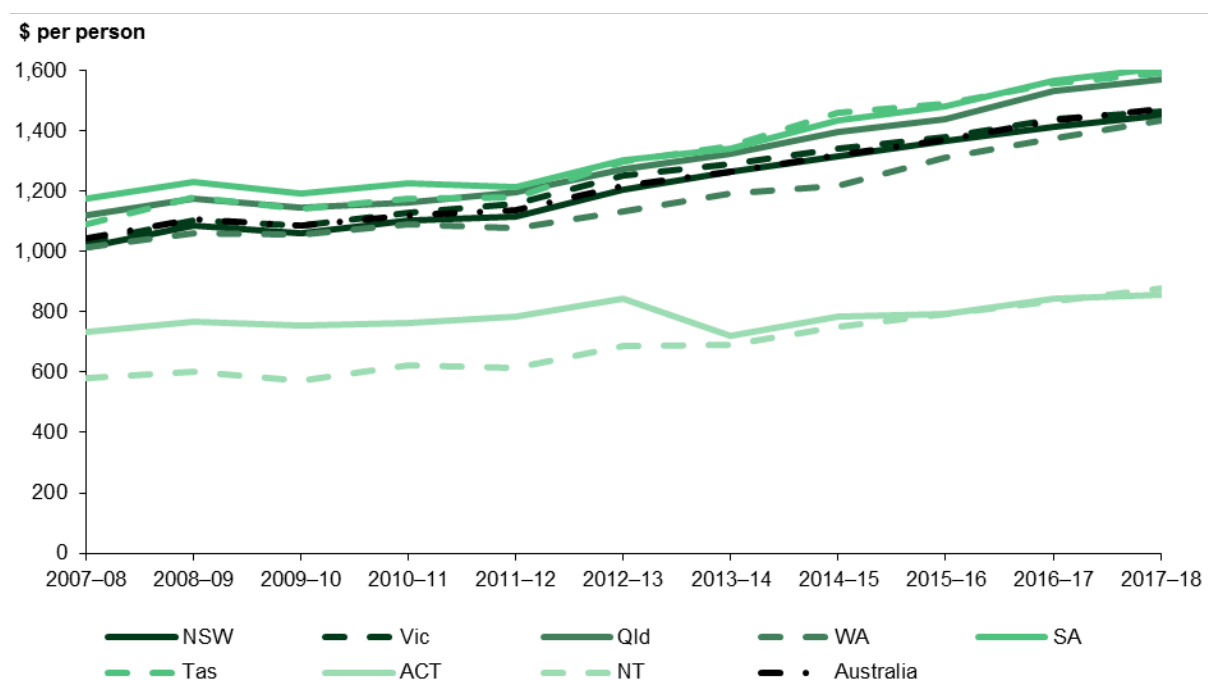
## Private health insurance provider health expenditure per person covered

In 2017–18, it was estimated that private health insurance providers spent an average of \$1,470 per person covered by a private hospital insurance policy—a growth of \$37 (2.6%) from 2016–17. This was slightly lower than the average annual growth of 3.5% in per person covered over the decade (Figure 3.13).

South Australia (\$1,607) and Tasmania (\$1,592) had the highest expenditure by private health insurance funds per person covered, at just under twice the per person amount of the ACT (\$855) (Figure 3.13). Over the decade, average annual growth in expenditure by health insurance providers per person covered was greatest in the Northern Territory (4.2%) and lowest in the Australian Capital Territory (1.5%).

Nationally, spending by private health insurers equated to an average of \$671 per person in 2017–18, including those that were not covered by private health insurance. This represented an increase of 0.7% from 2016–17. The yearly growth rate to 2017–18 was well below the decade average yearly growth of 3.7% (Table 3.15).

**Figure 3.13: Average<sup>(a)</sup> per person expenditure by private health insurance providers for each state and territory, based on state private health insurance cover, constant prices<sup>(b)</sup>, 2007–08 to 2017–18**



(a) Based on the number of people with private hospital insurance cover living in each state and territory.

(b) Constant price health expenditure is expressed in terms of 2017–18 prices.

Sources: AIHW health expenditure database; Australian Prudential Regulation Authority (2019) (see Table 3.14).

## Other non-government spending

In 2017–18, other non-government sources spent \$11.5 billion on health (Table 3.10), which included expenditure by compulsory third-party motor vehicle insurers; workers compensation insurers; and non-government sector capital expenditure and other private funding, including private spending on private hospitals and research.

The 2017–18 share was consistent with the decade average share of funds spent by other non-government sources on health, at 6.2%. This was an increase of 0.2 percentage points since 2016–17 (Table 3.1).

In 2017–18, injury compensation insurers spent \$3.1 billion on health goods and services: \$1.8 billion by workers compensation insurers and \$1.2 billion by compulsory third-party motor vehicle insurers. This represented an increase of 1.9% on 2016–17, and was 0.6 percentage points above average annual growth over the decade (1.3%) (Table 3.16). Growth across the 10 years was volatile for both types of injury compensation insurers, but both had a positive average annual growth rate over the decade.

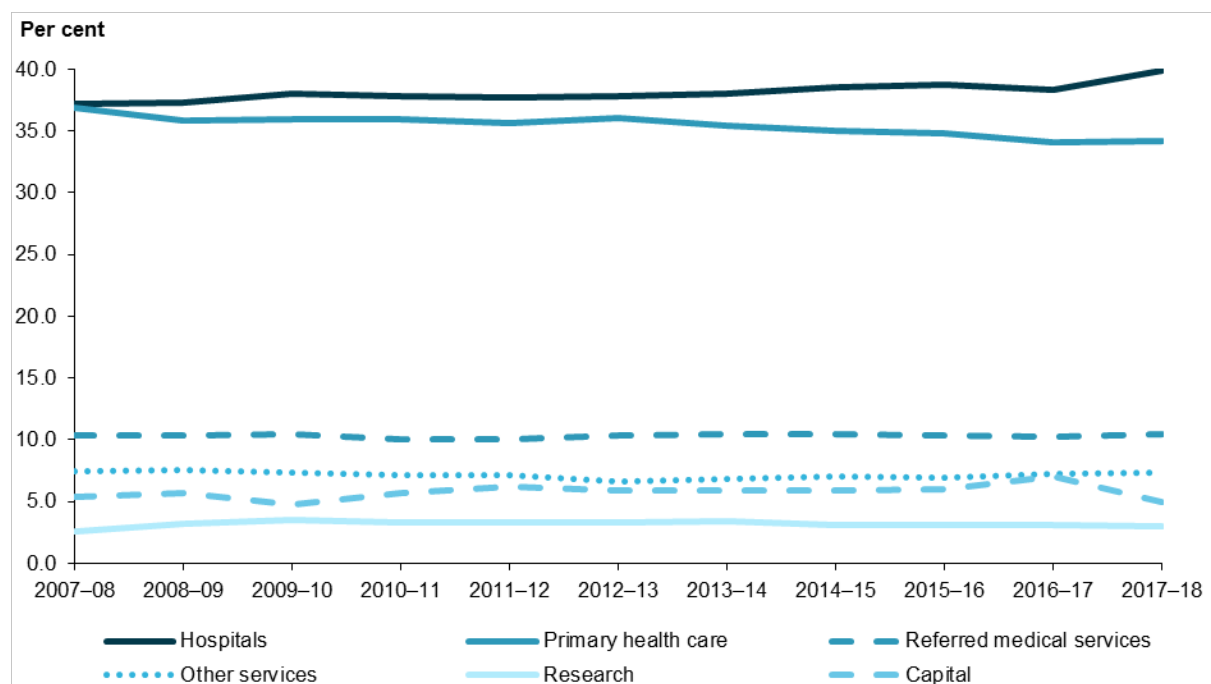
## 4 Trends by area of spending

Health funding is spent on a range of health-related goods and services including: hospitals (both public and private); primary health care; referred medical services; research; other services, such as patient transport, aids and appliances; and on the accumulation of health-related capital.

In 2017–18, of total health spending (excluding the medical expenses tax rebate), \$176.1 billion was recurrent expenditure and \$9.3 billion was capital expenditure (Table 2.2).

Expenditure was distributed across health services, with: 39.9% (\$74.0 billion) spent on hospitals; 34.2% (\$63.4 billion) on primary health care; and 10.5% (\$19.4 billion) on referred medical services. The remaining 15.4%, \$28.6 billion, was on other services, research and capital (Figure 4.1). Apart from variations in capital expenditure, which ranged from 4.8% in 2009–10 to 7.0% in 2016–17, these proportions had been relatively stable since 2007–08.

**Figure 4.1: Proportion of total health expenditure, by area of expenditure, current prices, 2007–08 to 2017–18**



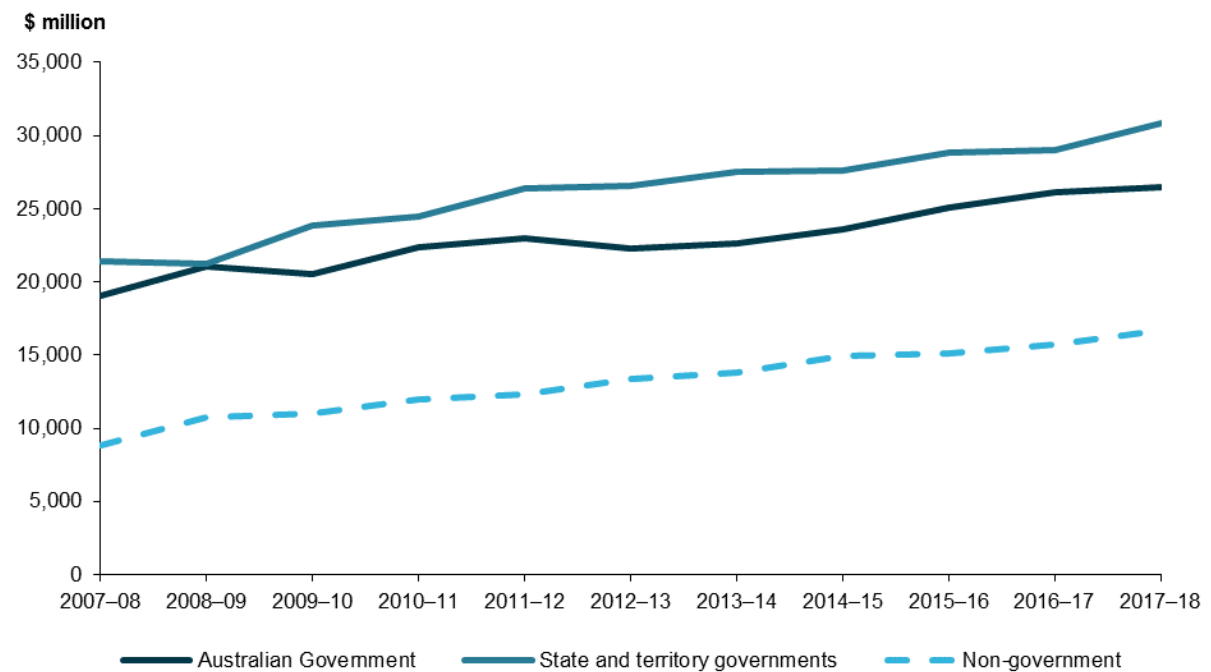
Source: AIHW health expenditure database (see Table 4.1).

### 4.1 Hospitals

During 2017–18, a total of \$74.0 billion was spent on Australia's public and private hospitals, with \$30.8 billion (41.7%) of this funded by state and territory governments and \$26.5 billion (35.8%) by the Australian Government. The remaining \$16.7 billion (22.6%) came from non-government sources (Figure 4.2).

Expenditure on hospitals in 2017–18 was 4.5% higher than the previous year and just above the 4.2% average annual growth for the decade. Most of the increase in the year 2017–18 was as a result of increased funding by states and territories (6.4%) and non-government entities (6.4%). In contrast, the Australian Government funding grew by 1.3%.

**Figure 4.2: Expenditure on hospitals, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Source: AIHW health expenditure database (see Table 4.2).

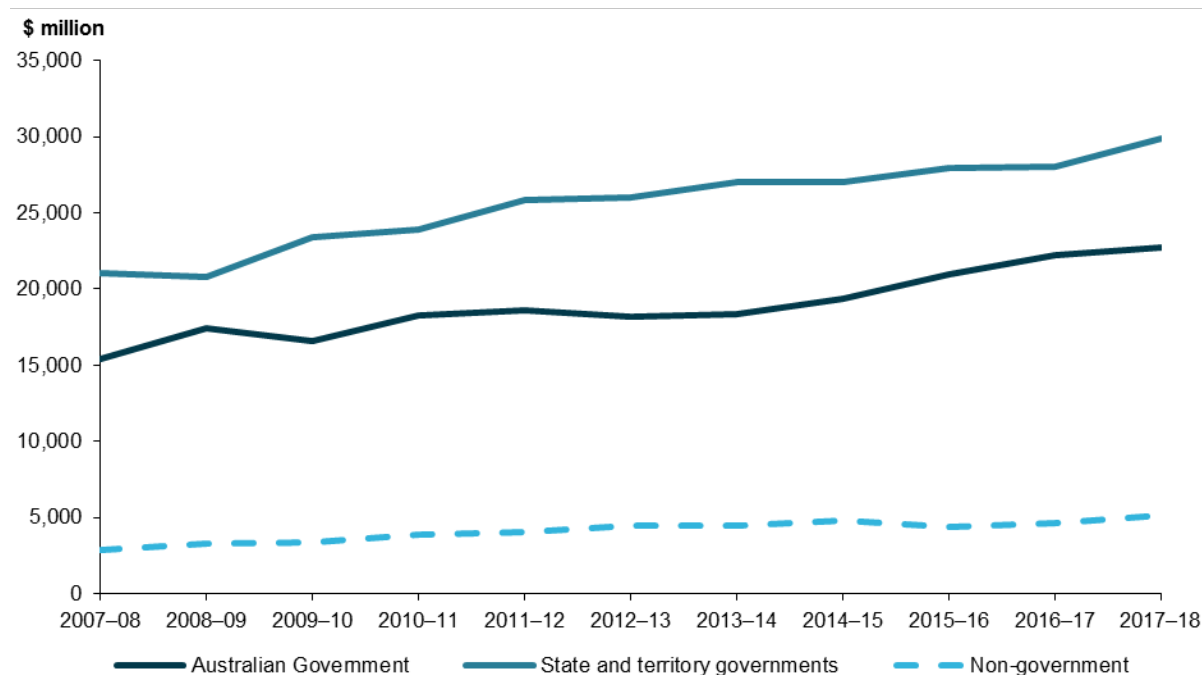
## Public hospitals

Australia’s public hospital system cost \$57.7 billion in 2017–18 (Figure 4.3). In the same year, 3 in 5 (60%) of the 11.3 million episodes of admitted patient care occurred in public hospitals; more than 8 million presentations to Australian public hospital emergency departments; and 39 million non-admitted patient care service events were provided to public patients in outpatient clinics (AIHW 2018, 2019a, 2019b). Spending was up from \$54.9 billion the previous year—a real increase of 5.2%, which was above the 3.9% average annual real growth over the decade.

In 2017–18, state and territory governments, which have primary responsibility for administering public hospitals, contributed the most funding: \$29.9 billion (51.8%), followed by the Australian Government with \$22.7 billion (39.4%) and non-government entities at \$5.1 billion (8.9%). Growth in spending by the Australian Government was 2.1%, compared with 6.7% by state and territory governments and 10.4% by non-government entities (Table 4.3).

Over the 10-year period to 2017–18, overall spending increased by 3.9% on average per year, with the highest increase from the non-government sector (6.1% per year). The Australian Government contributions were the same as the annual average growth of spending on public hospitals (3.9%) and state and territory governments were slightly below it (3.6%) (Table 4.3).

**Figure 4.3: Public hospital expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Source: AIHW health expenditure database (see Table 4.3).

## Private hospitals

The majority (71.0%, \$11.6 billion) of the estimated \$16.3 billion spent on private hospitals was funded by the non-government sector:

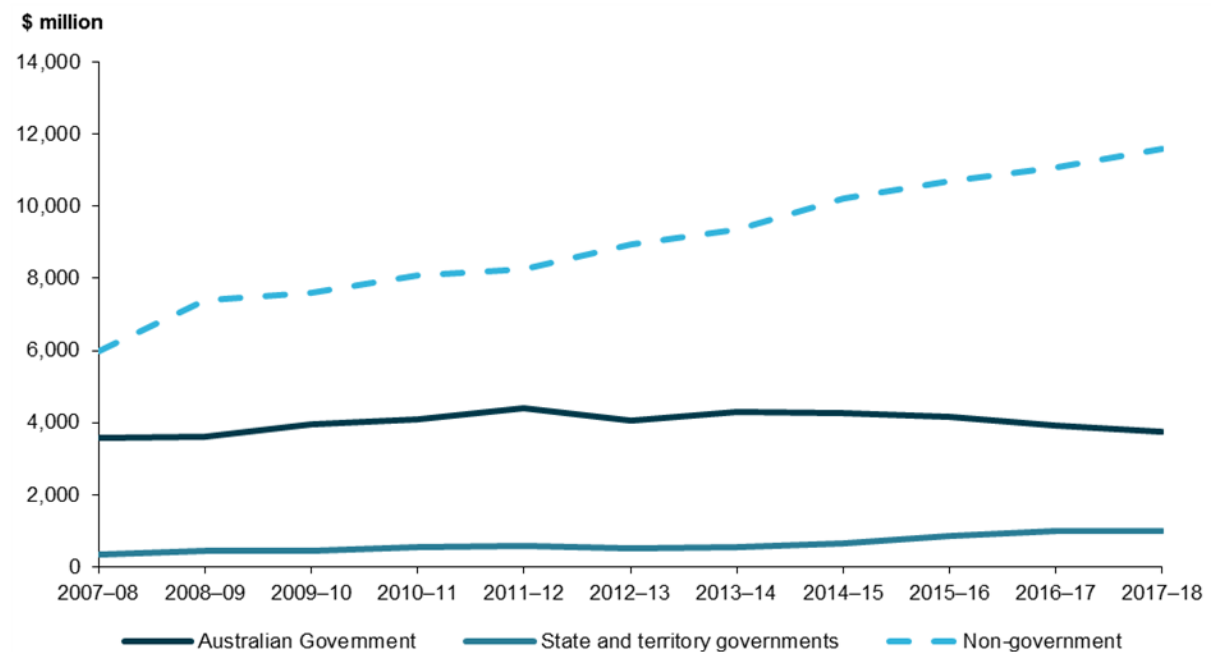
- private health insurance providers—\$8.2 billion
- individuals—\$2.2 billion
- other non-government—\$1.2 billion (Table A6).

Another \$3.8 billion (23.0%) was spent by the Australian Government and \$1.0 billion (6.0%) by state and territory governments (Figure 4.4). Government expenditure in private hospitals can occur where state and territory governments contract with private hospitals to provide services to public patients, or where individual public hospitals purchase services from private hospitals for public patients. A large portion of Australian Government expenditure on private hospitals is a result of payments through the MBS.

From 2016–17 to 2017–18, real expenditure grew by \$0.4 billion (2.4%). This was due to an increase of non-government spending (\$0.5 billion), attributable mainly to increased expenditure on private hospitals by individuals (tables A5 and A6).

The overall increase in estimated expenditure on private hospitals in 2017–18 was around 3 percentage points below the decade average yearly growth rate (2.4% and 5.1%, respectively).

**Figure 4.4: Private hospital expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Note: In 2007–08, methodological changes resulted in a break in the time series. Consequently, private hospital estimates for 2007–08 are not strictly comparable to other years.

Source: AIHW health expenditure database (see Table 4.4).

## 4.2 Primary health care

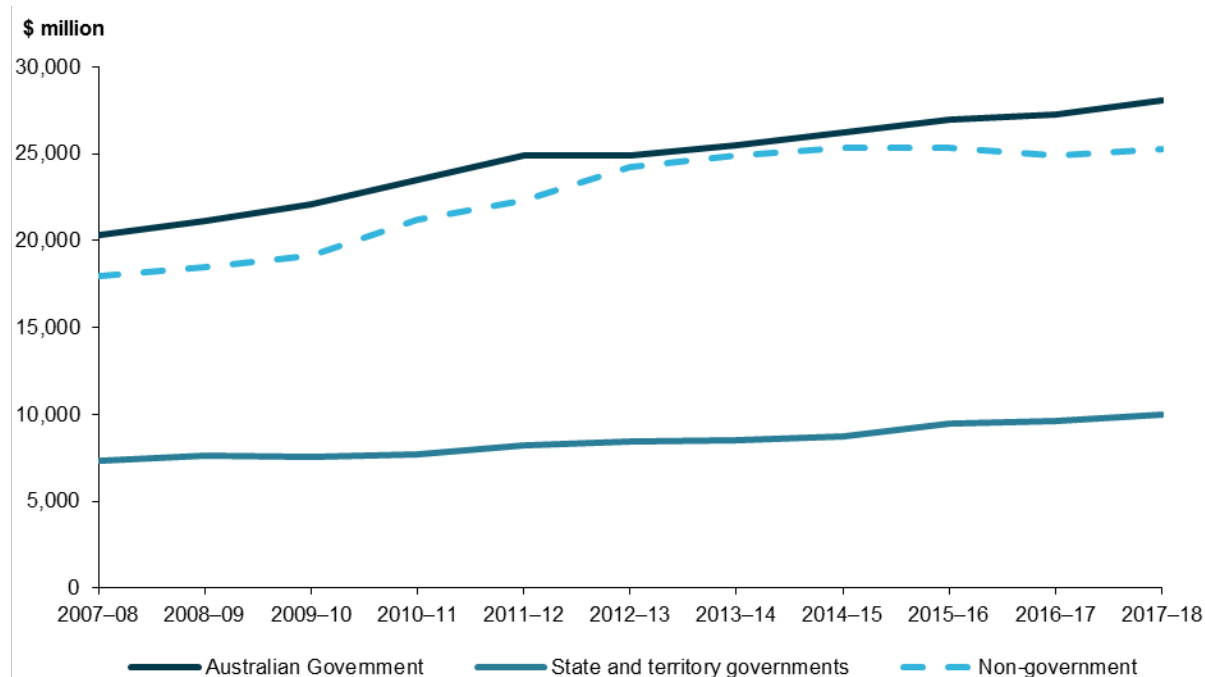
In 2017–18, \$63.4 billion was spent on primary health care (Table 4.5). Over half of primary health care funds (\$45.5 billion) were on unreferral medical services (\$12.7 billion), subsidised pharmaceuticals (\$12.1 billion), dental services (\$10.5 billion) and unsubsidised medications (\$10.2 billion) (Table A6). The Australian Government spent \$28.1 billion (44.3%), non-government entities spent \$25.3 billion (39.9%), and state and territory governments spent \$10.0 billion (15.8%) (Figure 4.5).

The \$1.5 billion increase in expenditure in the year 2017–18 (from \$61.8 billion to \$63.4 billion) was mainly due to increased expenditure from the Australian Government of \$0.8 billion (Table 4.5).

Between 2007–08 and 2017–18, there was an average real growth of 3.3% each year.

Australian Government expenditure on primary health care increased the most over the decade: by \$7.8 billion, representing an average yearly real growth of 3.3%.

**Figure 4.5: Primary health care expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

Source: AIHW health expenditure database (see Table 4.5).

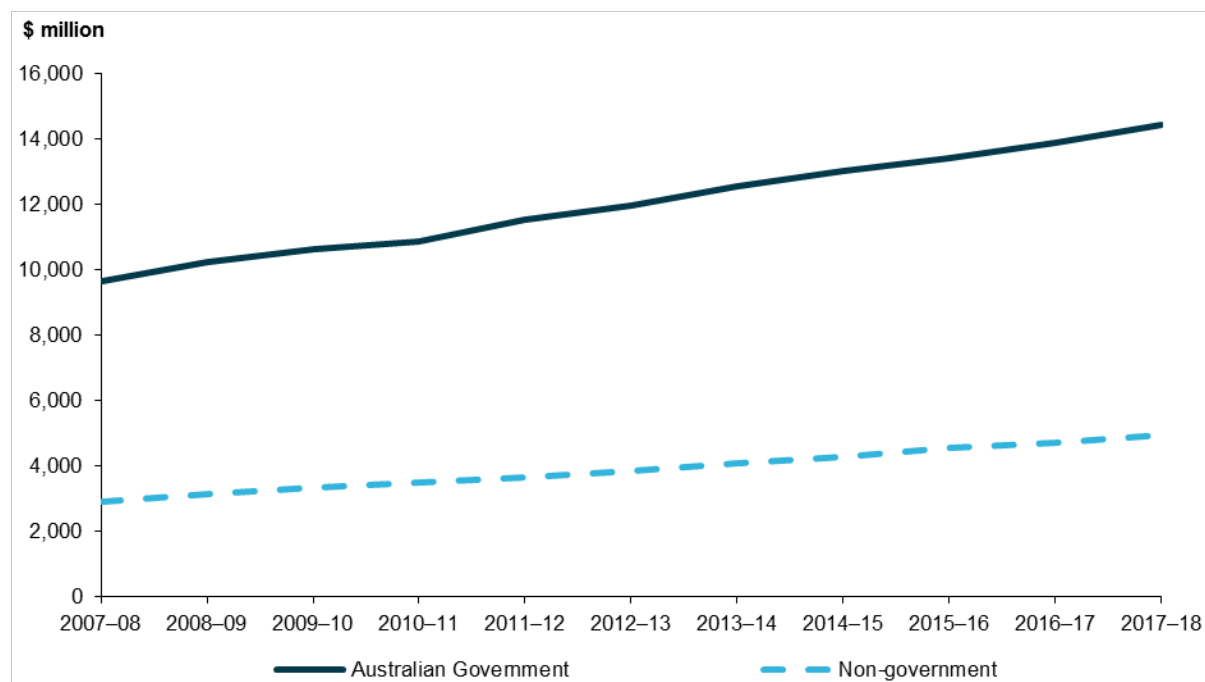
### 4.3 Referred medical services

During 2017–18, \$19.4 billion was spent on services where a person had been referred by a general practitioner (GP) or medical specialist to another non-hospital specialist or allied health professional. Three in every 4 dollars were funded by the Australian Government (74.5%, or \$14.4 billion) through the Medicare Benefits Schedule, and the remainder by non-government entities (25.5%, or \$4.9 billion). State and territory governments do not contribute any funding to this area of expenditure (Figure 4.6).

Expenditure on referred medical services increased by \$0.8 billion in 2017–18: a real growth rate of 4.3%. The Australian Government and non-government entities experienced similar real growth over this time: 4.2% (\$0.6 billion) and 4.8% (\$0.2 billion), respectively.

Over the decade there was an average increase of 4.4% each year on referred medical expenses. This was as a result of 4.1% growth by the Australian Government and 5.4% by non-government funding.

**Figure 4.6: Referred medical services expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices

**Notes**

1. Non-government expenditure consists of individual and private health insurance expenditure only.
2. There was no state and territory spending on referred medical services.

Source: AIHW health expenditure database (see Table 4.6).

## 4.4 Other services

Estimated total expenditure on other services in 2017–18 was \$13.7 billion. Of this, \$4.8 billion was spent on administration, \$4.7 billion on aids and appliances, and \$4.2 billion on patient transport services (Table A6). Overall, non-government entities contributed \$6.2 billion (44.8%), state and territory governments contributed \$4.0 billion (29.2%) and the Australian Government contributed \$3.6 billion (26.0%) (Figure 4.7).

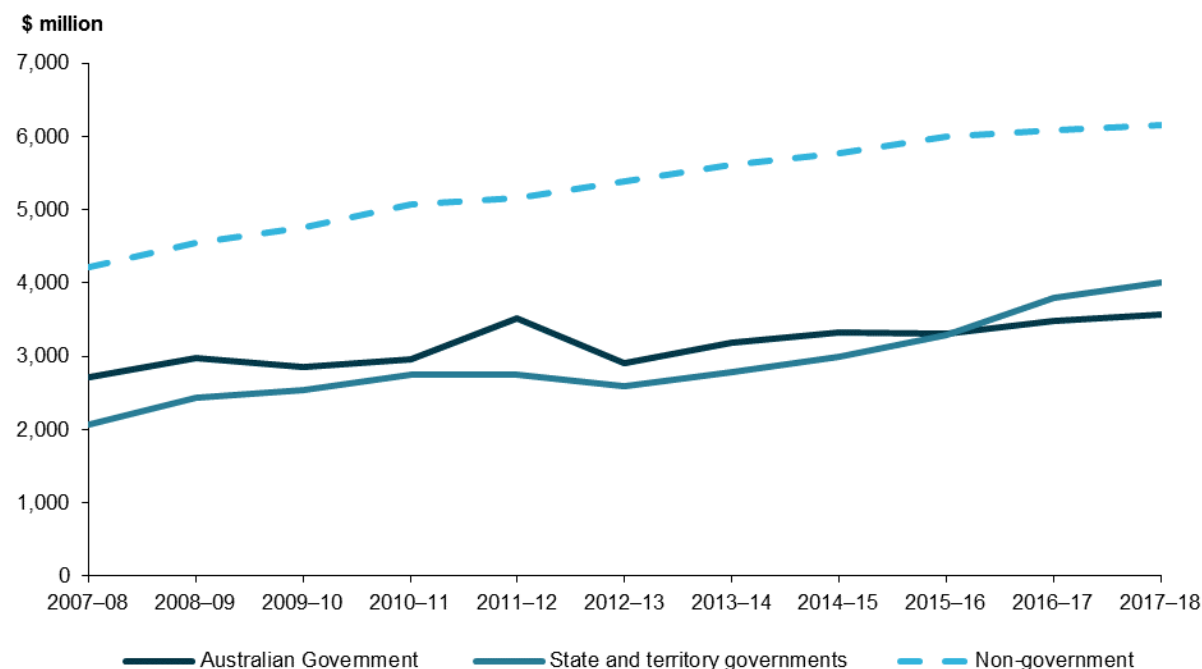
Compared with the previous year, total expenditure increased in real terms by \$0.4 billion (2.8%) in 2017–18. This growth was attributable mainly to an increase in expenditure by the state and territory governments of \$0.2 billion (5.8%). Australian Government expenditure increased by \$0.08 billion (2.4%), while expenditure by non-government entities increased by \$0.07 billion (1.2%). Patient transport services attracted the largest increase in funding, with an additional \$0.3 billion (7.1%) in 2017–18 compared with the previous year, of which states and territory governments contributed \$0.3 billion (tables A5 and A6).

In the decade since 2007–08, the real average annual growth rate on other services was 4.3%. State and territory government expenditure in this area averaged 6.9% growth per year, with the highest rate of 18.1% in 2008–09 and the lowest, a decline of 6.1% in 2012–13.

Non-government expenditure on other services experienced positive growth in every year since 2007–08, with an average annual growth rate of 3.9%. Australian Government funding was particularly volatile during this time, with the highest real growth in funding of 18.7% in 2011–12 followed by the lowest real decrease in growth of –17.7% in the following year. This

is likely due to the commencement of National Health Reform funding in 2012–13 as per the National Health Reform Agreement, and the discontinuance of many Specific Purpose Payments (SPPs) in the same year. See Box 5.1 for further information.

**Figure 4.7: Other services<sup>(a)</sup> expenditure, by source of funds, constant prices<sup>(b)</sup>, 2007–08 to 2017–18**



(a) Other services include patient transport services, aids and appliances, and administration.

(b) Constant price health expenditure is expressed in terms of 2017–18 prices.

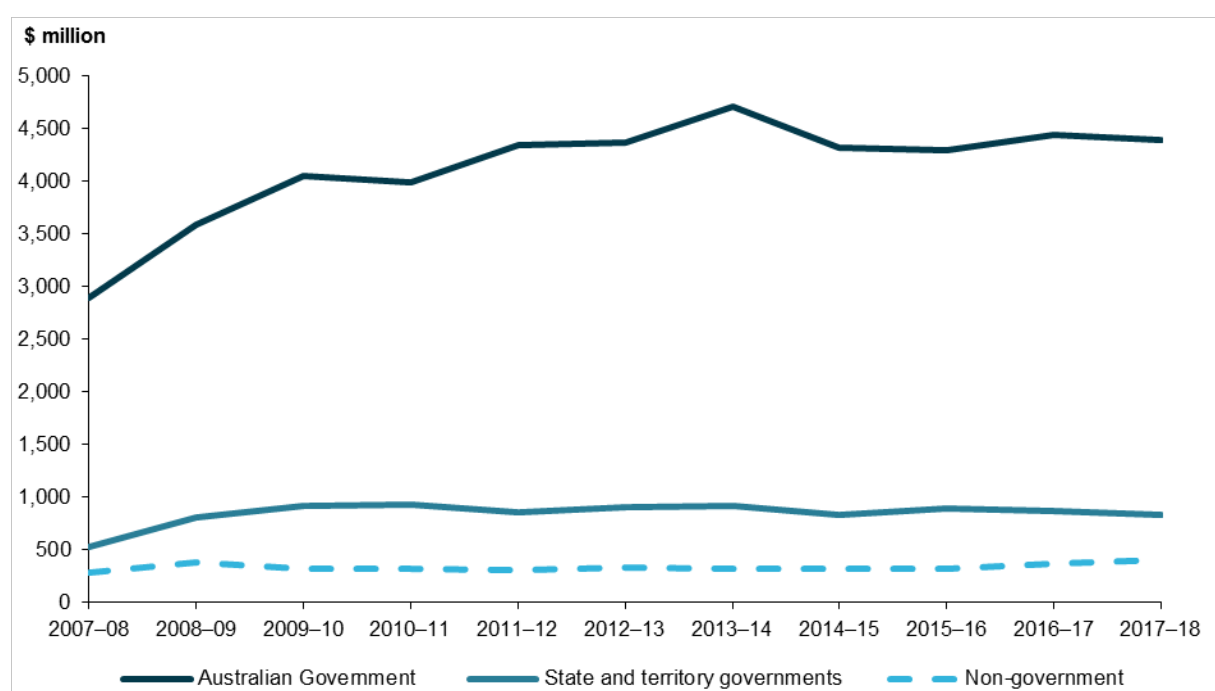
Source: AIHW health expenditure database (see Table 4.7).

## 4.5 Research

During 2017–18, an estimated \$5.6 billion was spent on health research. Of this, the Australian Government contributed \$4.4 billion (78.1%), state and territory governments contributed \$0.8 billion (14.7%) and the non-government sector contributed \$0.4 billion (7.2%) (Figure 4.8).

In real terms, expenditure on research decreased by \$0.06 billion (–1.0%) between 2016–17 and 2017–18; this was below the decade average annual real growth rate of 4.3%.

**Figure 4.8: Research expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

**Notes**

1. Non-government expenditure consists of individual and other non-government expenditure only.
2. There was no spending by private health insurance providers on research.

Source: AIHW health expenditure database (see Table 4.8).

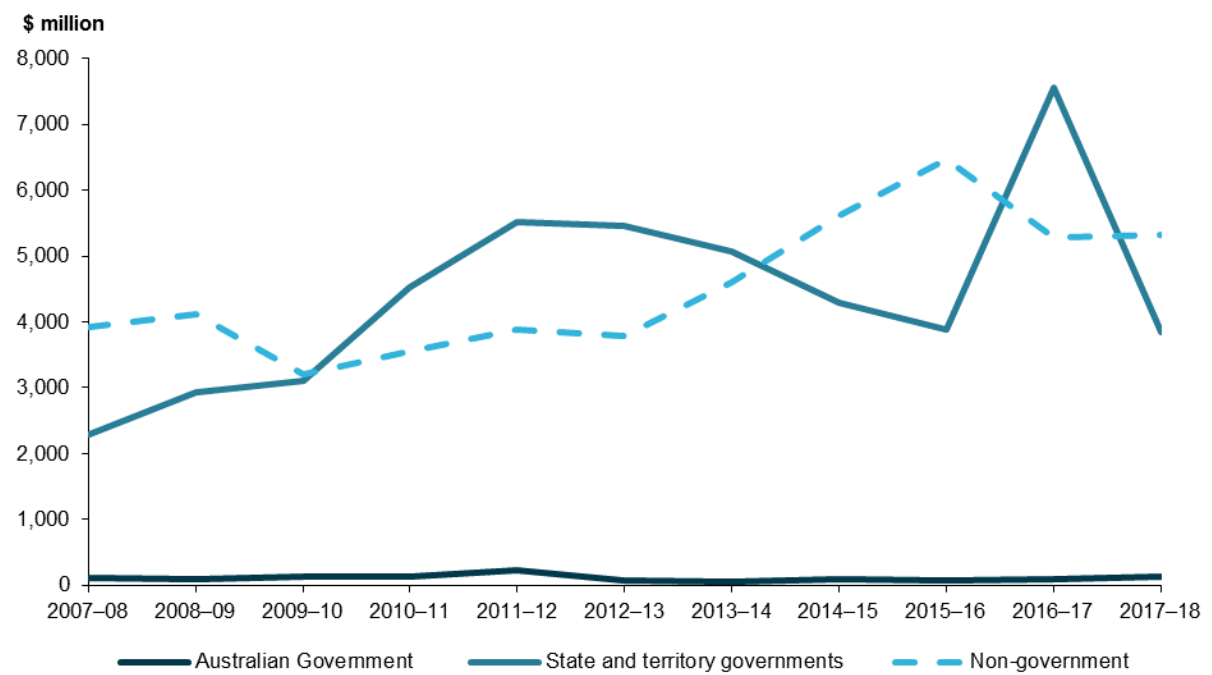
## 4.6 Capital expenditure

Capital expenditure is an important component of total health spending. However, capital outlays often relate to relatively high-cost items that have useful lives extending over many years. As such, growth in capital expenditure from year to year can be difficult to interpret. For example, 2016–17 capital expenditure estimates were affected by a large amount of capital expenditure on the new Royal Adelaide Hospital in South Australia. This one-off spending inflated the 2016–17 data and accounted for the 28.2% decrease in capital expenditure in the year 2017–18.

Capital expenditure on health facilities and investments in 2017–18 was \$9.3 billion. Over the decade to 2017–18, spending on capital accounted for around 6% of total health expenditure per year on average (Table 2.2).

From 2007–08 to 2017–18, capital expenditure by the non-government sector accounted for an average of around half (50.7%) of capital expenditure, state and territory governments for an average of 48.1% and the Australian Government averaged 1.3% (Figure 4.9).

**Figure 4.9: Capital expenditure, by source of funds, constant prices<sup>(a)</sup>, 2007–08 to 2017–18**



(a) Constant price health expenditure is expressed in terms of 2017–18 prices.

**Notes**

1. Non-government expenditure on capital is by other non-government only, with no expenditure by individuals or private health insurance providers.
2. The increase in 2016–17 for state and territory governments was due to a one-off capital expenditure project in South Australia.

Source: AIHW health expenditure database (see Table 4.9).

# 5 Concepts, definitions and data sources

## 5.1 Government funding sources

### Australian Government

Australian Government total health expenditure includes expenditure: by the Department of Health; on private health insurance premium rebates; on the net medical expenses tax rebate; by universities and other health-related bodies on health research; and by the Department of Veterans' Affairs. It also includes grants to states and territories, such as funding paid under the National Health Reform Funding Agreement; and spending on other programs, such as the Medicare Benefits Schedule (MBS) and Pharmaceuticals Benefits Scheme (PBS).

Data on Australian Government health expenditure come from the Department of the Treasury, the Department of Health, Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Australian Taxation Office and the Department of Veterans' Affairs (DVA). These data cover expenditure on a range of programs, including the MBS and PBS.

Most of the Australian Government's expenditure can be readily allocated on a state and territory basis:

- National Health Reform funding (referred to as the National Healthcare Specific Purpose Payments before 1 July 2012) and health-related National Partnership Payments (NPPs) to the states and territories (Box 5.1)
- MBS payments (based on the residence of patients)
- PBS payments (based on the residence of patients)
- DVA expenditure (based on the residence of patients).

Data on other Australian Government health expenditure are generally not reportable by state and territory. In these cases, estimation methods are used to derive state and territory expenditure results. For example, non-MBS payments to primary health care medical service providers are allocated according to the proportion of vocationally registered GPs in each state or territory.

In this report, Australian Government spending for 2008–09 includes \$1.2 billion funding through the 5-year National Partnership Agreement on Health and Hospital Workforce Reform. This funding was spread over 5 years and has been offset against 2008–09 state and territory government funding.

Australian Government expenditure for public hospital services in 2016–17 includes some payments related to the financial year 2015–16, as part of the National Health Reform Agreement (NHRA).

In 2017, the Australian Government funded the Tasmanian Government, via a grant under Section 96 of the Australian Constitution, for the Mersey Community Hospital. The agreement of the grant was for a period of ten years starting in 2017–18. The first payment was recorded this financial year, and future payments will be recorded over subsequent years.

### **Box 5.1: Australian Government funding for public hospitals**

Public hospital services are jointly funded by the Australian and state and territory governments, complemented by payments from non-government sources.

#### **Before 2008**

Since the introduction of Medicare in 1984, the Australian Government has negotiated bilateral funding agreements with each state and territory for the provision of public hospital services. These were initially known as Medicare Agreements, but were renamed in 2003 the Australian Health Care Agreements (AHCAs). The last AHCA expired in 2008.

Under the AHCAs, the Australian Government paid grants to the state and territories for public hospital services in the form of specific purpose payments (SPPs). Health SPPs largely comprised a base funding level adjusted for population growth, inflation, population ageing, the veteran population, hospital output costs and private health insurance membership levels.

#### **National Healthcare Agreement (2008–2011)**

After the expiration of the last AHCA, new financial arrangements were introduced that resulted in the National Healthcare Agreement (NHA). This agreement set out the principles for: prevention; primary and community care; hospitals; aged care; social inclusion and Aboriginal and Torres Strait Islander health; sustainability; and the patient experience. Performance indicators and benchmarks for each reform area were specified. Significantly, the NHA committed to the national implementation of Activity Based Funding in order to provide a basis for more efficient use of taxpayer funding of hospitals, and for increased transparency in the use of those funds.

National Partnership Payments (NPPs) were also established to drive specific initiatives across sectors and improve outcomes by offering reward and incentive payments to jurisdictions for the delivery of outcomes in key areas.

In 2010, the National Health and Hospitals Network Agreement (NHHNA) committed the Australian Government to become the major funder of public hospital services and the sole funder of primary health and aged care services. Local Hospital Networks (established by states and territories) would manage hospitals within a defined area, while responsibility for managing the hospital system as a whole would be retained by state and territory governments.

#### **National Health Reform Agreement (2011)**

Under the NHRA, the commitment for the Australian Government to become the majority funder of public hospital services was modified to reduce the funding level. Other elements of the NHHNA, such as the establishment of Local Hospital Networks, were retained.

The signing of the NHRA in 2011 (COAG 2011) also signalled the shift in public hospital funding to Activity Based Funding, with the NHRA detailing the new framework for the future delivery of funding for health and aged care services.

*Source: Biggs 2018.*

### **Medical expenses tax rebate**

The medical expenses tax rebate (or net medical expenses tax offset) is an Australian Government subsidy to assist with the cost of medical expenses: taxpayers who spend large amounts of money on health-related goods and services are able to claim a tax rebate.

Before 2012–13, the tax rebate was set at 20 cents in the dollar, and applied to the amount spent over the threshold for that financial year. From July 2012, the tax rebate became means tested. In March 2014, eligibility for the tax rebate changed again, restricting who

could claim and the type of medical expenses that could be claimed. The rebate is being phased out and will not exist beyond the end of the 2018–19 income year (ATO 2019a).

The areas of expenditure that are funded by this rebate cannot be identified separately, so it is not possible to allocate this funding to specific categories of health expenditure. Instead, the rebate is shown in the tables as being funded by the Australian Government back to individuals. The related expenditures are included in the estimates of health expenditure.

### **Private health insurance premium rebates**

The private health insurance premium rebate is a refund on private health insurance premiums that replaced the Private Health Insurance Incentives Scheme subsidy in 1999.

The Australian Government's private health insurance premium rebate relates to the premiums payable by private health insurance providers by individuals. It is regarded as being an indirect Australian Government subsidy of all the types of services funded through private health insurance. The rebate includes rebates paid through the tax system, as well as rebates paid to health insurance funds, which directly reduce premiums (Box 5.2).

In the ANHA, the premium rebate is pro-rated across all expense categories (including change in provisions for outstanding claims).

### **State and territory governments**

Most health expenditure data for state and territory governments come from each of the state and territory health authorities. These data are supplied on an accrual basis through the Government Health Expenditure National Minimum Data Set (GHE NMDS). Further information on the GHE NMDS can be found on the AIHW's Metadata Online Registry (<https://meteor.aihw.gov.au/content/index.phtml/itemId/721415>).

When state and territory governments receive funding from the Australian Government, such as Australian Government National Health Reform funding and health-related NPPs, the expenditure is included as expenditure by the Australian Government. The corresponding amount is deducted from the state/territory government to remove double counting.

### **Comparing state and territory data**

Caution should be exercised when comparing results between states and territories. Where possible, consistent estimation methods and data sources have been applied, but there are some differences between jurisdictions in the data on which estimation methods are based.

### **Estimating per person expenditure**

Health expenditure estimates for individual states and territories include expenditures on health goods and services. This may include health goods and services provided to patients from other states and territories (except for public hospital expenditure, where adjustments have been made through the NHRA to account for cross-border service provision). In calculating spending per person, the population that provides the denominator is the estimated resident population of the state or territory in which the expenditure was incurred (ABS 2019a). Because not all cross-border goods and services provision can be accounted for, this can lead to an over- or underestimation of spending per capita in each state and territory.

This issue particularly affects the estimates for the Australian Capital Territory, which provides a high volume of services to New South Wales residents. Therefore, per person estimates for the Australian Capital Territory are not reported in this publication, but are included in the national estimates.

The estimated resident population for the states and territories as at 31 December 2018 was used to calculate the per person estimates of expenditure (ABS 2019a) (Table 5.1).

## Local governments

Health expenditure data are not collected separately from local government authorities. Where local government authorities received funding from the Australian Government or state and territory government, it is included as expenditure from that body.

Own source funding by local government authorities is not included.

## Goods and services tax in government revenues

Australian Government tax revenues exclude revenues from the goods and services tax (GST), while state and territory and local government tax revenues include this tax. This is because the GST is collected by the Australian Government on behalf of states and territories, and is then distributed to the states and territories.

# 5.2 Non-government funding sources

## Individuals

Individuals incur medical costs through:

- copayments (or out-of-pocket expenses) for subsidised goods and services—for example, copayments for specialist services subsidised through the MBS
- copayments for the cost of health goods and services with third-party payers—for example, private health insurance funds
- meeting the full cost of goods and services—for example, medications that the PBS does not subsidise.

Individual expenditure estimates do not include premiums paid for private health insurance.

Until 2015–16, retail sales of medicines, such as in supermarkets, were sourced from *Retail world* (Flanagan 2007, 2008) and the *Retail world annual report* (Gloria 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016). For 2016–17 and 2017–18, estimates were based on data sourced from a private research firm, Information Resources Incorporated (IRI 2018a, 2019).

Data for over-the-counter medicines sold at pharmacies for 2007–08, 2010–11 and 2012–13 to 2015–16, were sourced from Information Resources Incorporated (IRI). For 2008–09, 2009–10 and 2011–12, estimates were based on data sourced from the *Retail world annual report* (Gloria 2009, 2010, 2011) and previous IRI-Aztec data. For 2016–17, data were sourced from IRI (2018b).

Due to a significant change in the survey used to collect over-the-counter sales of health-related products by individuals at pharmacies by the data provider, the 2017–18 survey results are not comparable with previous years results. The expenditure estimates for over-the-counter sales of health-related products for 2017–18 have been modelled on historical estimates.

Estimates of individuals' expenditure on dental services, other health practitioners and aids and appliances rely mostly on private health insurance data from APRA and ABS survey data. To derive estimates of individual out-of-pocket expenditure for these categories, growth in the cost of services are combined with changes in the proportion of the population who have ancillary health cover from year to year. Expenditure on these services by private

health insurance providers, MBS, PBS and injury compensation insurers is deducted from these estimates to arrive at the expenditure estimates funded by individuals.

From 2008–09, estimates of expenditure by individuals on patient transport services had been provided by states and territories through the GHE NMDS. Before this they were based on data from the Productivity Commission's Report on government services (SCRCSSP 2003; SCRGSP 2007, 2009).

## Private health insurance providers

The funds used by private health insurance providers are indirectly sourced from individuals who pay premiums to private health insurance providers, which may be subsidised by the Australian Government. These premiums are not treated as health expenditure and are not reflected in the health expenditure estimates. Health spending by private health insurance providers are the amounts paid to health providers. To avoid double counting, these health insurance provider expenditure estimates do not include subsidies received from the Australian Government through health insurance premium rebates. When creating the AIHW health expenditure database, the subsidy amount is subtracted from total expenditure of private health providers and is attributed to the Australian Government, resulting in total private health provider expenditure less than the amount actually paid out.

Additionally, the expenditure shows the payments made by health insurance funds over the year, and does not necessarily reflect the actual services provided during the year.

Private health insurance pays for some or all of the costs of:

- treatment in public or private hospitals as a private patient
- health services that are not covered under the MBS, such as physiotherapy, dental and optometry.

In April 2007, a legislative variation altered the scope of private health insurance to mean insuring liability for treatments by a hospital or other treatment provider to manage a disease, condition or injury. Before this, non-health services—such as funeral benefits, domestic assistance, and so on—were offered with health insurance policies (Australian Government 2016).

Individuals pay fees (premiums) to private health insurance providers, who subsidise the cost of hospital and some primary health care services. These fees are subsidised by the Australian Government, which provides eligible members with a rebate on their premium (Box 5.2).

The estimates calculated for expenditure by private health insurance providers equate to the total benefits paid, minus the private health insurance premium rebate. In compiling estimates, the AIHW allocates the rebates across all the expenses that the health insurance funds incur each year—including health (hospital, medical or physiotherapy, for instance) and non-health goods and services, management expenses, and any adjustment to provisions for outstanding and unrepresented claims. In estimating the private health insurance health expenditure, only the part of the rebate that can be attributed to benefits for health goods and services (which includes the providers' management expenses) are included. This portion of the rebate was deducted from the gross benefits that the health insurance provider paid to calculate health expenditure by private health insurance providers for particular areas of expenditure. These rebate amounts were then added to the expenditure by the Australian Government for those areas of expenditure.

### **Box 5.2: Private health insurance premium rebate**

There are 2 mechanisms for rebates on private health insurance premiums:

- Insurers offer members a reduced premium and then insurers claim reimbursement from the Australian Government.
- Members pay the full premium and claim the rebate through the tax system at the end of the financial year.

The private health insurance rebate on premiums paid by individuals was introduced in 1999, initially providing a 30% discount on premiums for people under 65 years, with older Australians received higher rebates.

In July 2012, the Australian Government introduced income testing of the rebate with the creation of income thresholds (income tiers). These thresholds attracted different rebate levels and meant that higher income earners would progressively receive lower rebates, or no rebate.

In 2014, the Australian Government changed the way the rebate was calculated, resulting in a lower rebate being available. Since this time, the rebate has progressively declined. For example, in 2014 the rebate ranged from around 29% for lower income earners (base tier rate), to no rebate for the highest income earners (tier 3). In 2018, the base tier rebate was 25%.

Also in 2014, the income tiers which had been indexed annually up until 2014–15 were frozen. In the 2016–17 Budget, the Australian Government announced this freeze would be maintained until 2021. This has the effect of decreasing rebates if incomes are rising.

*Sources:* Biggs 2017; ATO 2019b.

### **Private health insurance provider expenditure by states and territories**

Expenditure on health goods and services by providers of private health insurance within a state or territory is assumed to be equal to the amount of benefits paid by health insurance funds to patients who live in that state or territory minus the health insurance premium rebate.

Calculations using the number of privately insured persons are based on data from APRA (2019) (Table 5.2).

#### **The Australian Capital Territory**

Before 2009–10, data on private health insurance expenditure for the Australian Capital Territory (ACT) were included in the total for New South Wales. To estimate expenditure for the ACT, the AIHW used the ACT's admitted patient separation numbers for public and private hospitals to derive its proportion of total ACT and New South Wales separations, and then applied this proportion to private health insurance expenditure.

From 2009–10, private health insurance expenditure data for the ACT have been available separately; however, these figures have not been used retrospectively to update the earlier data.

### **Other non-government sources**

Other non-government sources of funds include:

- workers compensation insurers
- compulsory third-party motor vehicle insurers

- other privately funded health expenditure, such as some private hospital expenditure and research.

Workers compensation and compulsory third-party motor vehicle insurance payments data were obtained from Comcare and the respective injury compensation insurers in each state and territory.

## 5.3 Areas of expenditure

### Public hospitals

In Australia, public hospitals offer free services to eligible patients. Services provided by public hospitals are broad, and include those for both admitted and non-admitted patients. Admitted patient services are those where a patient is formally admitted to hospital, either on the same day or involving an overnight stay of 1 or more nights in hospital. Admitted patient services include medical, surgical and other acute care, as well as child birth, mental health and non-acute care. Non-admitted patient services include services provided in emergency departments and outpatient clinics, including the dispensing of medicines, district nursing and some community health services.

Public hospitals and the services they provide are jointly funded by the Australian Government and state and territory governments, complemented by payments from non-government sources. The funds provided by the Australian Government are primarily based on activity levels—Activity Based Funding (Box 5.1). Public hospitals are controlled by the relevant state or territory health authority which provide additional funds for the public hospitals. Non-government sources provide funds to public hospitals for services such as ambulatory care and programs not covered by the MBS.

For the ANHA, state and territory health authorities directly provide estimates of expenditure on public hospital services through the GHE NMDS. These estimates reflect only that part of public hospital expenses that are used in providing hospital services. This can include services provided off-site, such as hospital in the home and dialysis.

Public hospital expenditure excludes expenses incurred in providing community and public health services, dental, patient transport services, and health research undertaken by public hospitals. These excluded expenses are captured under their respective categories, such as Other services or Primary health care. Defence force hospitals are not included in the scope of public hospitals.

In some cases, public hospitals receive fees from medical practitioners in return for the right to practise privately within the hospital. The medical practitioner may then receive payment from the MBS, individuals and/or private health insurance funds for these services. In the ANHA, expenditure from these sources is captured in the expenditure data, but the fees received by the hospital are not always captured as revenue in the hospital's data. This can effectively lead to a double counting of expenditure on the same service. For example, it may appear as though the hospital paid for a portion of the service as well as the MBS.

### Cross-border service provision

For public hospitals, cross-border activity-based funding under the NHRA is paid directly by the Administrator of the National Health Funding Pool to the jurisdiction where services were provided.

## Private hospitals

Private hospitals cater for patients who are treated by a doctor of their own choice. Patients are charged fees for accommodation and other services provided by the hospital and relevant medical and paramedical practitioners. Acute care and psychiatric hospitals are included, as are private free-standing day hospital facilities.

Private hospitals are largely owned and operated by private (non-government) organisations—either for-profit companies or not-for-profit organisations. State and territory governments license or register private hospitals.

Data on spending on private hospitals comes from the annual ABS Private Health Establishments Collection, with the most recent results published in *Private hospitals, Australia, 2016–17* (ABS 2018c). The final ABS Private Hospital Establishment Collection was conducted for the 2016–17 reporting period. Data from this collection contributed to estimates of both individual and other private expenditure. Consequently, the expenditure estimates for 2017–18 are modelled on historical data.

Care should also be taken when comparing private hospital expenditure for years up to 2007–08 with subsequent years. In 2007–08, data were not collected, and an estimate of private hospital expenditure was made using data from the preceding years. Between 2008–09 and 2016–17, expenditure by individuals in private hospitals was estimated from the reported revenue (rather than from reported expenditure, as previously used) in the ABS collection.

### Contracting of private hospital services

Private hospital expenditure also includes expenditures incurred by a private hospital in providing contracted and/or ad hoc treatments for public patients.

This is collected through the GHE NMDS, which reports funding by state and territory governments for services private hospitals provide. This includes where state or territory governments had contracts with private hospitals to provide services to public patients or where individual public hospitals purchased services from private hospitals for public patients.

## Primary health care

Primary health care is typically a person's first contact with the health system. It includes recurrent expenditure on health goods and services, such as unreferral medical services (for example, GP visits), dental services, other health practitioner services, pharmaceuticals, and community and public health services. It encompasses care that is not related to a hospital visit and includes a range of activities such as prevention, health promotion, early intervention, treatment of acute conditions and management of chronic conditions.

Primary health care is delivered in a range of settings, such as general practices, community health centres, Aboriginal health services and allied health practices (for example, physiotherapy, dietetic and chiropractic practices), and come under numerous funding arrangements.

Expenditure on primary health care includes expenditure on unreferral medical services, dental services, other health practitioner services, pharmaceuticals, and community and public health services. Non-hospital medical services that are referred (for example, specialist visits) are not classified as primary health care.

## **Unreferred medical services**

These are medical services provided to a person by, or under the supervision of, a medical practitioner that have not been referred to that practitioner by another medical practitioner or person with referring rights.

## **Dental services**

These are services that registered dental practitioners provide. These include oral and maxillofacial surgery items, orthodontic, pedodontic and periodontic services, cleft lip and palate services, dental assessment and other dental items listed in the MBS. The term covers services funded by health funds, state and territory governments and also individuals' out-of-pocket payments.

Data on expenditure on dental services are obtained from a range of sources, including private health insurance and the MBS. However, out-of-pocket expenses where people attend the dentist with no private health cover are not included.

Expenditure on orthodontics is included in dental expenditure, even though the principal purpose of some of these procedures are cosmetic, rather than health per se.

## **Other health practitioners**

These include practice nurses, chiropractors, optometrists, physiotherapists, occupational therapists, speech therapists, audiologists, dieticians, podiatrists, homeopaths, naturopaths, practitioners of Chinese medicine and other forms of traditional medicine.

## **Community health and other**

These are non-residential health services offered to patients/clients in an integrated and coordinated manner in a community setting, or the coordination of health services elsewhere in the community. Such services are provided by, or on behalf of, state and territory governments.

The term 'other' in 'community health and other' includes recurrent health expenditure that could not be allocated to a specific category; for example, expenditure by substance abuse treatment centres, providers of general health administration, or providers of regional health services not further defined.

Changes to how the Department of Health reported Aboriginal and Torres Strait Islander health expenditure contributed to the fall in expenditure on community health services between 2014–15 and 2015–16. In 2015–16, a number of Aboriginal and Torres Strait Islander community health program funding allocations were combined with other Indigenous programs, which resulted in some of the expenditure on community health services being attributed to other areas of expenditure, such as unreferred medical services.

## **Public health**

Public health involves activities and services funded or provided by state and territory health departments that deal with issues related to populations, rather than individuals. They are aimed at protecting and promoting the health of the whole population or specified population subgroups, as well as preventing illness or injury in the whole population or specified population subgroups. Examples of public health activities include: communicable disease control; organised immunisation; food standards and hygiene; cancer screening; prevention of hazardous and harmful drug use; and public health research

## **Benefit-paid pharmaceuticals**

These are medications listed in the schedule of the PBS and the Repatriation PBS for which pharmaceutical benefits have been paid or are payable. This does not include listed pharmaceutical items where the full cost is met from the patient copayment under the PBS or Repatriation PBS.

## **All other medications**

These are pharmaceuticals for which no PBS or Repatriation PBS benefit is paid, and include:

- pharmaceuticals listed in the PBS or Repatriation PBS, the total costs of which are equal to, or less than, the statutory patient contribution for the class of patient (under copayment pharmaceuticals)
- pharmaceuticals dispensed through private prescriptions that do not fulfil the criteria for payment of benefit under the PBS
- over-the-counter medicines, including pharmacy-only medicines, aspirin, cough and cold medicines, vitamins and minerals, herbal and other complementary medicines, and various medical non-durables such as condoms, adhesive and non-adhesive bandages.

## **Referred medical services**

These are medical services where the person has been referred by a GP or medical specialist. Typically, a GP refers patients to specialists, allied health professionals, and pathology or radiology providers.

## **Other services**

### **Patient transport services**

These are services or organisations primarily engaged in transporting patients by ground or air—along with health (or medical) care. These services are often provided for a medical emergency, but are not restricted to emergencies. The vehicles are generally equipped with lifesaving equipment and operated by medically trained personnel. Patient transport services include public ambulance services or flying doctor services, such as the Royal Flying Doctor Service and Care Flight.

Also included are patient transport programs, such as patient transport vouchers or support programs to help isolated patients with travel to obtain specialised health care. From 2003–04 onwards, this category includes patient transport expenses included in the operating costs of public hospitals.

### **Aids and appliances**

These are medical goods that are used more than once for therapeutic purposes, such as glasses, hearing aids, wheelchairs and orthopaedic appliances, and prostheses fitted externally (rather than implanted surgically), not as part of admitted patient care.

### **Administration**

These are activities related to the formulation and administration of government and non-government health policy, and in the setting and enforcement of standards for health personnel and health services. One activity, for example, is the regulation and licensing of providers of health services.

The term includes only those administrative services that cannot be allocated to a particular health good or service. Such services might include, for example, maintaining an office for the chief medical officer, a departmental liaison officer in the office of the minister, or other agency-wide items for which it is not possible to derive appropriate or meaningful allocations to particular health programs.

Until 2008–09, departmental costs for the following Commonwealth regulators: the Therapeutic Goods Administration; the Office of the Gene Technology Regulator; and the National Industrial Chemicals Notification and Assessment Scheme were reported under public health services. These are now reported as administration expenses.

Administration expenditure for Western Australia (WA) went up substantially in 2016–17 due to the introduction of a new reporting framework by the WA Department of Health. As a result, corporate costs are directly allocated to administration and no longer distributed across service areas.

## Research

This is research with a health socioeconomic objective that is undertaken in tertiary institutions, private non-profit organisations or government facilities. It excludes commercially oriented research funded by private business, the costs of which are assumed to be included in the prices charged for the goods and services (for example, medications that have been developed and/or supported by research activities).

Research expenditure data in this report come from the Research and experimental development survey series, which is generally only available every second year (ABS 2010, 2018d, 2018e). Where data were unavailable, estimates were calculated based on the data available for the preceding years.

## Capital expenditure and capital consumption

Capital expenditure is expenditure on large-scale fixed assets (for example, new buildings and equipment with a useful life extending over a number of years). Australian Government capital expenditure is often by way of grants and subsidies to other levels of government or to non-government organisations. State and territory governments, in contrast, devote much of their resources to new and replacement capital for government service providers (for example, hospitals and community health facilities). Non-government capital expenditure is mainly on private hospitals.

Capital consumption is the amount of fixed capital used up each year, and is sometimes referred to as depreciation. Capital consumption is included in recurrent expenditure.

In the ANHA, capital expenditure cannot be disaggregated by the area on which it has been spent. For example, it is not possible to determine the proportion of capital expenditure related to hospitals or primary health care. Conversely, capital consumption is considered as part recurrent expenditure in the ANHA and throughout the report, and is thus captured in spending on different areas of health.

The data for capital expenditure and capital consumption are sourced from the ABS's government finance statistics.

In earlier *Health expenditure Australia* reports, private capital consumption was included as part of recurrent expenditure, while government capital consumption was reported as part of total health expenditure but not recurrent expenditure. From *Health expenditure Australia 2007–08* (AIHW 2009) onwards, government capital consumption has been included as part of recurrent health expenditures.

## 5.4 Price indexes (deflators)

A price index, also known as a deflator, is a measure of inflation. It shows relative price change of the amount by which a price has changed over time relative to a base year. For example, the Consumer Price Index is a measure of the average change over time in the prices paid by households for a fixed basket of goods and services.

Constant price estimates for expenditure aggregates have been derived using either annually re-weighted chain price indexes or implicit price deflators (IPDs). There are various methods for calculating a price index. The AIHW uses both annually re-weighted Laspeyres (base-period-weighted) chain price indexes and IPDs. Chain price indexes are calculated at a detailed level, and give a close approximation to measures of pure price change. IPDs are affected by changes in the composition of goods. Chain indexes, which give better measures of pure price change, are preferred to IPDs, but available indexes are not always ideal, and in some cases it has been necessary to use proxies for the preferred indexes.

The reference, or base, year for both the deflators used in this report is 2017–18. As such, constant price estimates indicate what expenditure would have been had 2017–18 prices applied in all years. Therefore, assuming the prices are constant, any change in expenditure, is a measure of changes in the volume of goods and services purchased.

### The Australian economy

In this report, the measure used for general inflation is the implicit price deflator (IPD) for Gross National Expenditure (GNE). GNE is a broad measure of the value of final expenditures on the goods and services purchased in the economy, including personal consumption, investment and purchases made by governments and foreigners, which includes imports but excludes exports. The IPD gives an indication of changes in the purchase price of these goods.

For comparative purposes, some analysis is also presented using the Gross Domestic product (GDP) IPD. The GDP IPD measures change in the total value of goods and services that Australian residents produce, including exports but excluding imports. For example, where exports form a major part of an economy's production, the GDP inflation figure can reflect international trends more than shifts in domestic pricing. In these cases, GNE may give a more accurate indication of inflation in domestic prices.

### The health sector

The total health price index is the AIHW's index of annual ratios of estimated total national health expenditure at current prices to estimated total national health expenditure at constant prices. Because the national total health price index is a measure of the change in average health prices from year to year at the national level, it can be used as a broad deflator for the health sector. The AIHW's method for deriving constant price estimates also allows it to produce total health price indexes for each state and territory.

All prices in the total health price index for this report are referenced to 2017–18 (tables 5.2 and 5.3).

## Subsections of the health sector

There are many price indexes (deflators) for the Australian health sector, which are distinguished by:

- the scope of the index—the economic variable to which the price indexes refer (such as all health expenditure, capital consumption, capital expenditure); the economic agents over which the indexes are combined (such as all agents, households, all government, state and territory governments); and the segment of health services to which the indexes refer (such as all health services, medical services, pharmaceuticals)
- the technical manner in which the indexes are constructed—implicit price deflator (IPD) or directly computed indexes (for example, base-weighted, current-weighted or symmetric indexes, chained or unchained indexes).

### Box 5.3: Area of health expenditure, by type of deflator applied

Area of expenditure	Deflator applied
Public hospitals <sup>(a)</sup> /Public hospitals services <sup>(a)</sup>	GFCE hospitals and nursing homes
Private hospitals	GFCE hospitals and nursing homes
Patient transport services	GFCE hospitals and nursing homes
Medical services	MBS medical services fees charged
Dental services	Dental services
Other health practitioners	Other health practitioners
Community health and other <sup>(b)</sup>	Professional health workers wage rate index
Public health	GFCE hospitals and nursing homes
Benefit-paid pharmaceuticals	PBS pharmaceuticals
All other medications	HFCE on chemist goods
Aids and appliances	Aids and appliances
Administration	Professional health workers wage rate index
Research	Professional health workers wage rate index
Capital expenditure	Gross fixed capital formation
Medical expenses tax rebate	Professional health workers wage rate index

(a) Public hospital services exclude certain services provided in hospitals, and can include services provided off site, such as hospital in the home and dialysis.

(b) 'Other' includes recurrent health expenditure that could not be allocated to a specific area of expenditure. For example, expenditure by substance abuse treatment centres, providers of general health administration, or providers of regional health services not further defined.

Different indexes are appropriate for different analytical purposes and the AIHW selected indexes where the scope matches the particular health services being analysed, rather than broad-brush indexes that cover all health services.

This report uses a range of deflators (Box 5.3). Most deflators are specific to the type of expenditure to which they are applied. For example, for hospitals, the government final consumption expenditure (GFCE) hospitals and nursing homes deflator is used.

The following deflators are sourced from the ABS: GFCE for hospitals and nursing homes; professional health workers wage rate index; household final consumption expenditure (HFCE) for chemist goods; and gross fixed capital formation. The ABS deflators use 2016–17 as their base year, but for this report the AIHW has re-referenced them to 2017–18.

The AIHW has derived the chain price index from the MBS medical services fees charged and the IPD for PBS pharmaceuticals from data provided by the Australian Government Department of Health. The IPDs for dental services, other health practitioners, and aids and appliances were derived from ABS and APRA data. Table 5.3 shows the total health price index and other industry-wide indexes used in this report, referenced to 2017–18, the corresponding annual growth rates for each of these indexes over the decade to 2017–18.

The method to derive estimates of benefit-paid pharmaceuticals expressed in constant prices (in terms of 2017–18) have been revised for this year's report. In order to provide comparability over time, this change has been back-casted to 1985–86.

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# Abbreviations

ABF	Activity Based Funding
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHCA	Australian Health Care Agreement
AIHW	Australian Institute of Health and Welfare
ANHA	Australia's National Health Accounts
APRA	Australian Prudential Regulation Authority
DVA	Department of Veterans' Affairs
GDP	gross domestic product
GFC	global financial crisis
GP	general practitioner
GFCE	government final consumption expenditure
GHE NMDS	Government Health Expenditure National Minimum Data Set
GNE	gross national expenditure
GST	goods and services tax
HED	AIHW health expenditure database
HFCE	household final consumption expenditure
IPD	implicit price deflator
IRI	Information Resources Incorporated
MBS	Medicare Benefits Schedule
NHA	National Healthcare Agreement
NHHNA	National Health and Hospitals Network Agreement
NHRA	National Health Reform Agreement
NPP	national partnership payment
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PBS	Pharmaceutical Benefits Scheme
Qld	Queensland
SA	South Australia
SPP	specific purpose payment
Tas	Tasmania
Vic	Victoria
WA	Western Australia

# Glossary

**Activity Based Funding:** A way of funding public hospitals whereby they get paid for the number and mix of patients they treat.

**admitted patient:** A patient who undergoes a hospital's formal admission process to receive treatment and/or care, and ends with a formal separation process.

**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 of number of employees.

**capital consumption:** The amount of fixed capital used up each year—also referred to as depreciation.

**chain price index:** An annually re-weighted index providing a close approximation to measures of pure price change.

**copayment:** A payment made by an individual who shares the cost of goods and services with third-party payers, such as a private health insurance provider or the Australian Government for the payment of a Pharmaceutical Benefits Scheme or Repatriation Pharmaceutical Benefits Scheme medicine (see **out-of-pocket costs**).

**hospital services:** Services provided to a patient who is receiving **admitted patient** services or non-admitted patient services in a hospital, but excluding non-admitted dental services, community health services, patient transport services, public health activities and health research done within the hospital. They can include services provided off-site, such as dialysis or hospital in the home.

**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).

**local government:** The six states and the Northern Territory have established a further level of government. Local governments handle community needs such as waste collection, public recreation facilities and town planning. In the Australian Capital Territory, the responsibilities usually handled by local government are administered by the territory government.

**Medicare Benefits Schedule (MBS):** A publicly funded health-care scheme that entitles eligible Australian residents to free treatment in all public hospitals and a rebate for treatment from medical practitioners, eligible midwives, nurse practitioners and allied health professionals.

**out-of-pocket costs:** The total costs incurred by individuals for health-care services over and above any refunds from the MBS, the PBS and private health insurance funds (see **copayment**).

**over-the-counter medicines:** Medicinal preparations that are not prescription medicines that are primarily bought from pharmacies and supermarkets.

**Pharmaceutical Benefits Scheme (PBS):** A national, government-funded scheme that subsidises the cost of a wide variety of pharmaceutical drugs (see **Repatriation Pharmaceutical Benefits Scheme**).

**private patient:** A person admitted to a private hospital, or person admitted to a public hospital who decides to choose the doctor(s) who will treat them or to have private ward accommodation. This means they will be charged for medical services, food and accommodation.

**public patient:** A person admitted to hospital at no charge and mostly funded through public sector health or hospital service budgets.

**Repatriation Pharmaceutical Benefits Scheme (Repatriation PBS):** Provides assistance to eligible veterans (with recognised war- or service-related disabilities) and their dependants for pharmaceuticals listed on the PBS and a supplementary repatriation list, at the same cost as patients entitled to the concessional payment under the PBS (see **Pharmaceutical Benefits Scheme**).

**total health price index:** The ratio of total national health expenditure at current prices, to total national health expenditure at constant prices.

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# List of figures

Figure 1.1: The structure of Australia's health system: funding sources and areas of expenditure .....	4
Figure 2.1: Nominal and real total health expenditure, 2007–08 to 2017–18.....	8
Figure 2.2: Average total health expenditure per person, and annual growth rates constant prices, 2007–08 to 2017–18.....	9
Figure 2.3: Total health expenditure for each state and territory, constant prices, 2007–08 to 2017–18 .....	10
Figure 2.4: Average total health expenditure per person for each state and territory, constant prices, 2007–08 to 2017–18 .....	11
Figure 2.5: Annual health inflation and general inflation rates, 2007–08 to 2017–18 .....	13
Figure 2.6: Ratio of total health expenditure to GDP, and annual growth rates, current prices, 2007–08 to 2017–18.....	14
Figure 2.7: Ratio of government health expenditure to government tax revenue, current prices, 2007–08 to 2017–18.....	15
Figure 2.8: Growth in average income, average personal health expenses per person and health expenditure to income ratio, current prices, 2007–08 to 2017–18 .....	16
Figure 2.9: Growth in individual net worth, per capita personal health expenses and health expenditure to net worth ratio, current prices, 2007–08 to 2017–18 .....	17
Figure 3.1: Proportion of total health expenditure, by source of funds, current prices, 2007–08 to 2017–18 .....	18
Figure 3.2: Ratio of Australian Government health expenditure to Australian Government tax revenue, current prices, 2007–08 to 2017–18 .....	19
Figure 3.3: Australian Government health expenditure, by program, constant prices, 2007–08 to 2017–18 .....	20
Figure 3.4: Australian Government health expenditure, by area of expenditure, constant prices <sup>(a)</sup> , 2007–08 to 2017–18 .....	22
Figure 3.5: Health insurance premium rebates, constant prices, 2007–08 to 2017–18 .....	23
Figure 3.6: Department of Veterans' Affairs health expenditure, by area of expenditure, constant prices, 2007–08 to 2017–18 .....	24
Figure 3.7: Ratio of state and territory government health expenditure to state and territory government tax revenue, current prices, 2007–08 to 2017–18 .....	25
Figure 3.8: Ratio of health expenditure to tax revenue for each state and territory government, current prices, 2007–08 to 2017–18 .....	25
Figure 3.9: State and territory government health expenditure, by area of expenditure, constant prices, 2007–08 to 2017–18 .....	26
Figure 3.10: Non-government health expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....	27
Figure 3.11: Average per person individual health expenditure, by area of expenditure, constant prices, 2007–08 to 2017–18 .....	28
Figure 3.12: Private health insurance provider health expenditure, by area of expenditure, constant prices, 2007–08 to 2017–18 .....	29

Figure 3.13: Average per person expenditure by private health insurance providers for each state and territory, based on state health insurance cover, constant prices, 2007–08 to 2017–18 .....30

Figure 4.1: Proportion of total health expenditure, by area of expenditure, current prices, 2007–08 to 2017–18 .....32

Figure 4.2: Expenditure on hospitals, by source of funds, constant prices, 2007–08 to 2017–18 .....33

Figure 4.3: Public hospital expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....34

Figure 4.4: Private hospital expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....35

Figure 4.5: Primary health care expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....36


Figure 4.6: Referred medical services expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....37

Figure 4.7: Other services expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....38

Figure 4.8: Research expenditure, by source of funds, constant prices, 2007–08 to 2017–18 .....39

Figure 4.9: Capital expenditure, by source of funds, constant prices, 2007–08 to 2017–18 ....40





Regular reporting of national health expenditure is vital to understanding the health system and its relationship to the economy.

In 2017–18:

- Total health spending was \$185.4 billion, equating to \$7,485 per person.
- Health spending increased by 1.2%, which was lower than the decade average of 3.9%.
- The majority of health spending went on hospitals (40%) and primary health care (34%).
- Health spending accounted for 10% of overall economic activity.

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